



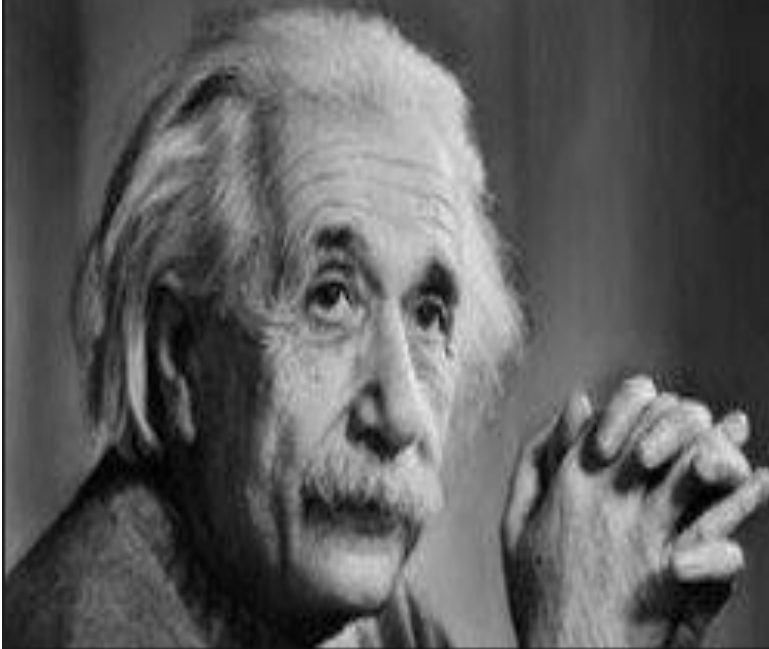
# Above Ground Storage Tanks

## Tank Compliance Basics

# AST Rules

don't understand it well enough.

– Albert Einstein



# Subject to the Act - 47 CSR 63 1.5.a



- **In general all tanks with capacity exceeding 30 barrels that fall in Level 1 ( ZCC ) or Level 2 ( ZPC ) zones except for:**
  - **1.5.a.1.** - Surface impoundments, pits, ponds, lagoons, septic tanks, in ground sumps, or home aeration systems.
  - **1.5.a.2.** - Heating and cooling equipment.
  - **1.5.a.3.** - Equipment or machinery containing substances for operational purposes, such as hydraulic lifts and lubricating oil reserves for pumps and motors.
  - **1.5.a.4.** - Tanks containing blasting agents or explosives as defined in 199 CSRI: and
  - **1.5.a.5.** - Aboveground storage tanks that contain water treatment chemicals used for maintaining compliance with NPDES permit effluent limits in treatment systems that are located at facilities subject to either Groundwater Protection Rules for Coal Mining Operations (38 CSR 2F) or a Coal Mining NPDES permit issued to (47 CSR 30) are not Level I tanks for the purpose of this rule unless the tank is located within a zone of critical concern.

# Types of Certifications and Inspections



- Routine Maintenance Inspections
- Fit for Service Certifications
- Internal Inspections

# Important Dates – Spillman Thomas & Battle, PLLC - Summary



Important Dates in [AST Rule – 47 CSR 63](#) [all citations are to AST Rule]

## Inspections

August 1, 2016	<p><b>Routine Maintenance Inspections</b></p> <ul style="list-style-type: none"><li>➤ Every 14 days Inspection of Secondary Containment for Level 1 ASTs - §5.1.a</li><li>➤ Monthly Inspection of Secondary Containment for Level 2 ASTs - §5.1.a</li><li>➤ Monthly Visual Inspections of AST and Ancillary Equipment up to the First Point of Isolation for Level 1 and Level 2 ASTs - §5.1.b</li><li>➤ Recordkeeping §5.1.b.5 and - §6.1.a</li></ul>
January 28, 2017	<p><b>Fit for Service Certification of Inspection</b> of AST and Associated Secondary Containment by “qualified individual” for Level 1 ASTs (and every 3<sup>rd</sup> year thereafter) and Level 2 ASTs (and every 5<sup>th</sup> year thereafter) [<b>however, no inspection or certification required for tanks inspected and certified by 1/1/2015 pursuant to Interpretive Rule</b>] - §§ 5.2.a and 5.2.b</p>



# Important Dates – Spillman Thomas & Battle, PLLC - Summary



## WEST VIRGINIA ABOVEGROUND STORAGE TANK ACT

August 1, 2016 – Effective Date of AST Rules – 47 CSR 63, 47 CSR 64 and 47 CSR 65

Important Dates in [AST Rule – 47 CSR 63](#) [all citations are to AST Rule]

### Inspections

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August 1, 2017	<p><b>Internal inspection of existing Level 1 and Level 2 ASTs, older than 75 years that have not had an internal inspection since 8/1/1988 (excluding ASTs with capacity less than 30,000 gallons if compliant with § 10.1 (spill and overfill protection) and §10.3 (leak detection)) - §§5.3.f.1 and 5.3.e</b></p>
January 1, 2018	<p><b>Certification of “no obvious change” Inspection by owner or operator of Level 1 and Level 2 ASTs, “provided that the individual performing the inspection is qualified to perform tank inspections” and annually thereafter (except for fit for service inspection years) - §5.2.b</b></p>
August 1, 2018	<p><b>Internal inspection of Level 1 and Level 2 ASTs, 50-75 years old that have not had an internal inspection since 8/1/1988 (excluding ASTs with capacity less than 30,000 gallons if compliant with §§ 10.1 and 10.3) - §§5.3.f.2 and 5.3.e</b></p>
January 1, 2019–2021	<p><b>Certification of “no obvious change” Inspection by owner or operator or qualified representative for Level 2 ASTs (applicable to Level 1 ASTs for 1/1/2019 only) - §5.2.b</b></p>
August 1, 2019	<p><b>Internal inspection of Level 1 and Level 2 ASTs, 30-49 years old that have not had an internal inspection since 8/1/1988 (excluding ASTs with capacity less than 30,000 gallons if compliant with §§ 10.1 and 10.3) - §§5.3.f.3 and 5.3.e</b></p>
January 1, 2020	<p><b>Fit for Service Certification of Inspection by “qualified individual” for Level 1 - §5.2.b.1</b></p>
January 1, 2022	<p><b>Fit for Service Certification of Inspection by “qualified individual” for Level 2 - §5.2.b.2</b></p>

# Important Dates – Spillman Thomas & Battle, PLLC - Summary



## Upgrades to AST and Secondary Containment

November 1, 2016	Level 1 ASTs not meeting secondary containment requirements - §10.2.l.1
December 31, 2016	Level 1 ASTs normal and emergency vents - §8.6.f.1
February 1, 2017	Level 2 ASTs not meeting secondary containment requirements - §10.2.l.2
June 30, 2017	<ul style="list-style-type: none"> <li>➤ Level 2 ASTs normal and emergency vents - §8.6.f.2</li> <li>➤ Level 1 ASTs not meeting cathodic protection standards - §9.2.g.1</li> <li>➤ Level 1 ASTs not meeting corrosion protection standards for exterior coatings - §9.4.c.1</li> <li>➤ Level 1 ASTs not meeting corrosion protection standards for internal lining or coatings - §9.5.c.1</li> <li>➤ Level 1 ASTs not meeting overfill or spill requirements - §10.1.e.1.A</li> <li>➤ Level 1 ASTs not meeting leak detection requirements - §10.3.m.1 (except that visual leak detection must begin August 1, 2016 - §5.5.b)</li> </ul>
December 31, 2017	<ul style="list-style-type: none"> <li>➤ Level 2 ASTs not meeting cathodic protection standards - §9.2.g.2</li> <li>➤ Level 2 ASTs not meeting corrosion protection standards for exterior coating - §9.4.c.2</li> <li>➤ Level 2 ASTs not meeting corrosion protection standards for internal lining or coatings - §9.5.c.2</li> <li>➤ Level 2 ASTs not meeting overfill or spill requirements - §10.1.e.1.B</li> </ul>
June 30, 2018	Level 2 ASTs not meeting leak detection requirements - §10.3.m.2 (except that visual leak detection must begin August 1, 2016 - §5.5.b)

## New/Reconstructed ASTs and Spill Prevention and Response Plan Update

August 1, 2016	<ul style="list-style-type: none"> <li>➤ New Level 1 and 2 AST installations are subject to new and reconstructed AST requirements and new Level 1 AST installations must be double walled, double bottomed, or placed on a release prevention barrier - §8.2</li> <li>➤ New Level 1 and 2 AST installations in karst designated terrain must submit documentation of the new construction design criteria and engineering specifications to indicate that surface or subsurface conditions will not result in excessive settling or unstable support of the proposed AST, as approved by a professional engineer or an individual certified by API or STI to perform installations or a person holding certification under another program. - §8.2.f</li> </ul>
December 3, 2019	Update Spill Prevention and Response Plan (if submitted on December 3, 2014, or 5 years following initial plan submission) - §5.5.a.1

# Fit For Service Inspection and Certification – Level 1 (ZCC)



180 days after the AST rule's effective date, January 28<sup>th</sup>, 2017 the first inspection/certification under the AST rule is due. For tanks inspected in 2014 and certified by June 1, 2015, there is no January 28<sup>th</sup>, 2017 certification due.

- > Prior to January 1, 2018 a "no obvious change" inspection and certification is due.
- > Prior to January 1, 2019, a "no obvious change" inspection and certification is due.

Prior to January 1, 2020, a tank integrity inspection and certification is due.



# Fit For Service Inspection and Certification – Level 2 (ZPC)



180 days after the AST rule's effective date, January 28th, 2017 the first inspection/certification under the AST rule is due. For tanks inspected in 2014 and certified by June 1, 2015, there is no January 28<sup>th</sup>, 2017 certification due.

- > Prior to January 1, 2018 a "no obvious change" inspection and certification is due.
- > Prior to January 1, 2019, a "no obvious change" inspection and certification is due.
- > Prior to January 1, 2020, a "no obvious change" inspection and certification is due.
- > Prior to January 1, 2021, a "no obvious change" inspection and certification is due.

Prior to January 1, 2022, a tank integrity inspection and certification is due.

# Routine Maintenance Inspection Checklist – 5.1.a.1 to 5.1.b.3



Company Name	Tank Name																											
Level I (ZCC) and II (ZPC) Routine Maintenance Checklist Per 47CSR63	Internal Tank ID #																											
	WVDEP Tank # - - - -																											
	Pumper																											
	Monthly Inspection Highlighted in Yellow																											
															201 6													
															201 7													
Secondary Containment Inspection Questions ( Every 14 Days for Level I ZCC and Monthly for Level II ZPC )	8/1 2	8/2 6	9/9 9	9/2 3	10/ 7	10/ 21	11/ 4	11/ 18	12/ 2	12/ 16	12/ 30	1/1 3	1/2 7	2/1 0	2/2 4	3/1 0	3/2 4	4/7 4	4/2 1	5/5 5	5/1 9	6/2 6	6/1 6	6/3 0	7/1 4	7/2 8		
5.1.a.1																												
Are there any potential hazardous environmental conditions existing with the regulated AST system?																												
Yes																												
No																												
5.1.a.2																												
Are there signs of deterioration, discharges or accumulation of liquid substances including water inside the secondary containment area?																												
Yes																												
No																												
Are the drain valves closed?																												
Yes																												
No																												
5.1.a.3																												
If yes to 5.1.a.2 was the liquid substances in the secondary drained and disposed of ?																												
Yes																												
No																												
Tank Inspection Questions (Monthly) Level I ZCC & Level II ZPC																												
5.1.b.1																												
Are any leaks detected on AST Tank and or piping?																												
Yes																												
No																												
5.1.b.2																												
Are exterior surfaces deteriorating (cracks, areas of wear, distortions, corrosion, settlement, foundation and supports)?																												
Yes																												
No																												
5.1.b.3																												
Are there any leaks on ancillary equipment and appurtenances to the first point of isolation?																												
Yes																												
No																												

Instruction: Monthly inspection deficiencies that could negatively affect the AST System must be reported within 30 days to the Company's Certified Inspector for follow up. 5.1.b.6.A.

The Operator must immediately repair, replace or remove from service malfunctioning equipment and in no instance exceed 30 days from discovery. 5.1.b.6.B.

# Reporting and Record Keeping Requirements (47CSR 63 6)



- **6.1** Owners or operators of regulated AST systems must cooperate fully with inspection, monitoring, and testing conducted by the Secretary, as well as requests for document submission for AST testing, monitoring results, AST system records, and other AST system related documentation or information requested by the Secretary that may be needed to determine compliance with applicable requirements.
  - > **6.1.a.** - Owners or operators must maintain, at a minimum, the following records and make them readily available to the Secretary upon request.
    - > **6.1.a.1.** - Proof of financial responsibility for taking corrective action for each regulated AST system.
    - > **6.1.a.2.** - The current leak detection records for each regulated AST system. At a minimum, twelve (12) continuous of leak detection records must be maintained at the facility, or an alternative location, and readily available for review.
    - > **6.1.a.3.** - Appropriate documentation that each regulated AST system is properly protected from corrosion.

# Reporting and Record Keeping Requirements (47CSR 63 6 Cont)



- > **6.1.a.4.** - Documentation that reasonably establishes substances currently stored in each regulated AST system are compatible with all AST system components.
- > **6.1.a.5.** - Documentation that the secondary containment system has been checked as required by subdivision 5.1.a of the Rule. At a minimum, twelve (12) continuous months of checks of the secondary containment records must be maintained by the owner or operator and available for review.
- > **6.1.a.6.** - A copy of the annual certification and associated inspection that each regulated AST system is either Fit for Service or Not Fit for Service.
- > **6.1.a.7.** - Any internal inspections that are performed on the regulated AST.
- > **6.1.a.8.** - Documentation of the regulated AST system repairs performed.

# Reporting and Record Keeping Requirements (47CSR 63 6 Cont)



- > **6.1.a.9.** - Original installation and modification of tank system design specifications, including applicable manufacturer's documentation for the tank system and any regulated ancillary equipment.
- > **6.1.a.10.** - Floor and wall or shell thickness measurements for regulated metallic AST's shall be kept on file by the owner or operator for the life of the AST and shall be made available to the Secretary upon request.
- > **6.1.a.11.** - All manufacturer's instructions, performance claims, and their manner of determination described in writing by the equipment manufacturer or installer shall be retained by the owner or operator for the life of the regulated AST and made available to the Secretary upon request.
- > **6.1.a.12.** - A properly completed closure report and results of the site assessment conducted at permanent closure or change-in-service, when applicable.



# QUESTIONS ????????

