



## **VMA LEGISLATIVE BULLETIN & ALERT – Virginia SB626/HB1192 – Aboveground Chemical Storage Tanks**

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### **Action**

Contact your legislator to express concerns that these bills were introduced with no prior stakeholder participation. This issue has been studied at the direction of prior General Assembly sessions without a recommendation that such requirements are needed. As drafted, the size and scope of regulation will cost hundreds of millions of dollars. VA DEQ has not requested this additional authority. The bills need to be revised and there is insufficient time to develop a revised bill during this legislative session.

### **What's in the Bill?**

This legislation redefines "Aboveground storage tank" as a tank or a series of interconnected tanks and its associated pipes (i) that has a total storage capacity of more than 1,320 gallons, excluding its associated pipes, (ii) that is used for storing a liquid hazardous substance at standard temperature and pressure, and (iii) the volume of which, including the volume of the pipes, is more than 90 percent above the surface of the ground or the floor of an underground area.

The legislation broadly defines "hazardous substance" as (i) any substance defined in § 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, (ii) any extremely hazardous substance, and (iii) any substance determined by the Board pursuant to § 62.1-44.34:30 to be a hazardous substance.

The legislation directs DEQ to adopt regulations for aboveground storage tanks establishing (i) construction, performance, and inspection standards; (ii) secondary containment requirements; (iii) registration requirements, registration fees, and registration renewal requirements and fees; (iv) recordkeeping requirements; (v) leak detection and inventory control requirements; (vi) discharge response plan requirements; (vii) prohibitions against the discharge of any hazardous substance from

an aboveground storage tank; (viii) enforcement provisions; (ix) training or certification requirements for persons conducting inspections; (x) cleanup and containment requirements; and (xi) siting and construction standards for aboveground storage tanks installed after the effective date of such regulations;

The legislation directs DEQ to create regulations for flood-exposed areas that may include a requirement to elevate aboveground storage tanks and associated secondary containment.

The legislation creates a massive new reporting and registration mandate for every tank including GPS coordinates.

Creates a \$150 - \$600 per tank registration fee.

Requires the DEQ Director to compile an inventory of aboveground storage tanks in the Commonwealth and make such inventory publicly available on the Internet.

Mandates new secondary containment infrastructure.

Creates a new quarterly inspection mandate.

Creates new authority for the DEQ Director allowing for him/her or his/her designee to enter private property at any time at any establishment or other place where an aboveground storage tank is located; inspect and obtain samples of any fluid contained in an aboveground storage tank; conduct monitoring or testing of any aboveground storage tank, associated equipment, or contents, or surrounding soils, surface water, or groundwater.

Mandates an annual financial responsibility demonstration regulation on the owner of a tank.

Mandates a new discharge response plan by the owner of a tank.

Creates new civil and criminal penalties.

## **Concerns:**

- Inconsistent with current federal, state and local regulatory programs governing ASTs.
  - Does not recognize “federally permitted release” in compliance with [40 CFR 355.31](#).
  - Does not harmonize requirements with other existing Federal and local requirements, e.g., EPA Risk Management Plan Rule, Uniform Bldg Codes, and NFPA.

- Rule does not establish a reporting threshold for a release, while EPA has established RQ's for releases of Hazardous and Extremely Hazardous Substances
- Secondary containment requirements appear to differ from SPCC Plan requirements. Oil tanks and hazardous chemical tanks could be located in the same secondary containment.
- DEQ already has an effective regulatory program for ASTs containing oil per (9VAC25-91).
- Fails to recognize and address the existing facilities and allow for grandfathering or gradual implementation for such facilities.
- Dramatically expands of the number of covered substances to over 1200; many of which are either solids or gases at stand temperatures and pressures
- There is no application of a comprehensive risk assessment methodology for establishing management controls on such a broad list of substances that are stored in aboveground tanks.
- Industry "Best Practices" for ASTs include the siting and design for the intended stored substance, secondary containment, operational and monitoring procedures to detect leaks or overfills, and periodic inspection program to ensure mechanical and structural integrity. These "best practices" are generally incorporated into site Environmental Management Systems via ISO or Responsible Care© and periodically reviewed by third party auditors, as well as by Insurance Carriers as part of periodic risk assessment audits.
- Requires that site access be allowed 24/7 and without warning.
- AST testing may require the tank to be out of service (empty), which will disrupt operations.
- Sampling of "any fluid contained in an AST" and reporting results without confidentially protections in place creates security concerns.
- Giving the location of large storage tanks of hazardous chemicals on the internet could make them possible targets of terrorism.

## **CURRENT LAW & REGULATION OF AST**

Regulations Governing ASTs (see table attached)

1. VA - Facility and Aboveground Storage Tank Regulation - 9VAC25-91
2. VA – [Water Permits](#)
3. VA – [Waste Permits](#)
4. VA – [Air Permits](#)
5. VA – [Boiler and Pressure Vessel Permits](#)
6. VA – [Local Building Codes](#)
7. VA – [State Fire Codes](#)
8. Local – Building Codes and Fire Codes (varies)
9. US EPA [Hazardous Waste Management](#)
10. US EPA Risk Management Plan - 40 CFR 68
11. US EPA Toxic Pollutants - [40 CFR 401.15](#).

12. US EPA Priority Pollutants - [40 CFR Part 423, Appendix A](#)
13. US EPA Release Exemptions - [40 CFR 355.31](#)
14. US FDA ([1,002 tank references](#))

#### Law Governing ASTs

1. Clean Water Act
2. Clean Air Act
3. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ([CERCLA](#))
4. Federal Hazardous Substances Act ([FHSA](#))
5. Resource Conservation and Recovery Act ([RCRA](#))

#### Industry & Insurance Standards

1. API 650 addresses the required thickness of steel based as the welding requirements. API 650 also addresses how best a tank can be constructed to withstand natural conditions such as earthquakes and high winds.
2. API 653 is the standard for the inspection and repair of ASTs.
3. Insurance varies.
  - a. Chubb Tank Safe - <https://www.chubb.com/us-en/business-insurance/tanksafe.aspx>
  - b.

## **BACKGROUND**

The James River Association and other environmental NGO advocates want new regulations that will provide assurance that the Elk River Spill in Charleston, WV cannot occur in the Commonwealth (see link to report at the end of the report). Advocates have also included the “Tinker Creek” release in Roanoke, VA as a rationale for the regulation. In both releases, the cause was human error. Ultimately, advocates have characterized there to be a regulatory “gap” regarding ASTs.

US EPA recently reported that no new rules were necessary to prevent toxic releases. <http://thehill.com/policy/energy-environment/393520-epa-says-no-new-rule-needed-on-toxic-waste-spills>

DEQ stated in a report that "The basis for regulation [of aboveground storage tanks] will need to carefully consider the lack of scientific knowledge about chemical toxicity...[and] Any additional proposed action to address chemical storage including any specific legislation should include stakeholders as a part of the development process to assist in the necessity of clearly defined regulatory targets, basis for regulation, and type of regulation... [and] Funding would be required..." (DEQ, Chemical Storage in the Commonwealth, 2016).

Some form of this legislation has been introduced several times. The last formal “stakeholder” process resulted in the following issues for future evaluation:

1. Assess temporary outdoor storage procedures regulated by DEQ

2. Assess criminal trespass regulations to protect chemical sites
3. Consider regulation to notify downstream water supply resources in cases of a spill (finding of DEQ report – see below)
4. Assess US DOT tank storage regulations involving chemical compatibility
  - a. Construction standards for poly tanks
  - b. Poly tank utilization for specific chemical products
  - c. 32-month poly tank inspection standard

Summary of General AST Requirements

AGGREGATE FACILITY CAPACITY - Gallons		0 To ≤ 660	>660 To < 25K	≥ 25K To < 1MM	≥ 1MM
AST REQUIREMENT	Regulatory Reference 9VAC25-91				
Excluded from Regulation	30.A.3	X			
Registration of Tank(s) w/DEQ	100.A		X	X	X
Re-registration every 5 years	100.F		X	X	X
Registration of Tank(s) w/Local Officials	100.G		X	X	X
Closure Assessment	120		X	X	X
Record-keeping	150			X	X
Inventory Control Testing	130.B.1			X	X
Secondary Containment	130.B.2			X	X
Safe Fill & Shutdown	130.B.3			X	X
Pressure Testing of Pipes	130.B.4			X	X
Visual Daily & Weekly Inspection of Tanks	130.B.5			X	X
Training of Individuals	130.B.6			X	X
Leak Detection	130.B.7			X	X
Formal Inspection (new tanks)	130.C.1				X
Formal Re-Inspection	130.C.2				X
Safe Fill & Shutdown & High Level Alarm	130.C.3				X
Cathodic Protection of Piping	130.C.4				X
Performance Standards for ASTs Newly Installed, Retrofitted, or Brought Into Use	140			X	X
Oil Discharge Contingency Plan (22 items)	170			X	X
Groundwater Characterization & Monitoring	180 & 190				X

Aboveground Storage Tank Regulate Oild Elements	Proposed	Current	Current	Current
	<b>Hazardous Substance Aboveground Storage Tanks SB626/HB1192</b>	<b>Facility and Aboveground Storage Tank (AST) Regulation 9VAC25-91</b>	<b>Local building and Fire Codes (e.g. International Fire Code, NFPA, Uniform Bldg. Code)</b>	<b>EPA Risk Management Plan (40 CFR 68)</b>
<b>Definition: Above Ground Tank</b>	<ul style="list-style-type: none"> <li>• Storage volume &gt;1320 gallons</li> <li>• Located outdoors or indoors</li> <li>• Excludes flow through process tanks (40 CFR 280)</li> </ul>	<ul style="list-style-type: none"> <li>• Storage volume &gt;1320 gallons</li> <li>• Excludes flow through process tanks (40 CFR 280)</li> </ul>	<ul style="list-style-type: none"> <li>• Management Controls established by stored volumes</li> </ul>	<ul style="list-style-type: none"> <li>• Management Controls established by stored, processed, produced volume</li> </ul>
<b>Regulated Substances</b>	<ul style="list-style-type: none"> <li>• Extremely Hazardous Substance (40 CFR 355)</li> <li>• Hazardous Substance (40 CFR 302)</li> <li>• Board designation</li> <li>• Excludes Oil (incl. Hydrocarbons)</li> </ul>	<ul style="list-style-type: none"> <li>• Oil</li> </ul>	<ul style="list-style-type: none"> <li>• Hazardous materials</li> <li>• Compressed gases and cryogenic fluids</li> <li>• Flammable and combustible liquids</li> <li>• Flammable solids</li> <li>• Liquefied petroleum gases and natural gases</li> <li>• Oxidizers and organic peroxides</li> </ul>	<ul style="list-style-type: none"> <li>• Highly Hazardous Chemicals</li> </ul>
<b>Registration &amp; Fees</b>	<ul style="list-style-type: none"> <li>• Initial Registration</li> <li>• Renewal Registration</li> <li>• Registration fee schedule</li> <li>• GPS Location</li> <li>• Tank design elements</li> </ul>	<ul style="list-style-type: none"> <li>• Initial Registration</li> <li>• Renewal Registration</li> <li>• Registration of Tank(s) w/Local Officials</li> <li>• Oil Discharge Plan review fee</li> <li>• AST location</li> </ul>		<ul style="list-style-type: none"> <li>• Site Registration</li> </ul>

Aboveground Storage Tank Regulate Oild Elements	Proposed	Current	Current	Current
	Hazardous Substance Aboveground Storage Tanks SB626/HB1192	Facility and Aboveground Storage Tank (AST) Regulation 9VAC25-91	Local building and Fire Codes (e.g. International Fire Code, NFPA, Uniform Bldg. Code)	EPA Risk Management Plan (40 CFR 68)
		<ul style="list-style-type: none"> <li>Tank design elements</li> </ul>		
Construction, Performance, Inspection, Siting in Flood exposed Areas	<ul style="list-style-type: none"> <li>DEQ to establish regulations</li> <li>2<sup>nd</sup> Containment for ASTs &gt;25000gallons</li> </ul>	For ASTs >25000gallons: <ul style="list-style-type: none"> <li>2<sup>nd</sup> Containment</li> <li>Safe Fill &amp; Shutdown &amp; High-Level Alarm</li> <li>Cathodic Protection of Piping</li> <li>Pressure Testing of Pipes</li> <li>Closure Assessment</li> </ul>	<ul style="list-style-type: none"> <li>Apply to the location, construction, operation, monitoring, and closure of new or existing ASTs.</li> </ul>	Program Elements <ul style="list-style-type: none"> <li>Hazard Assessment</li> <li>Prevention Program</li> <li>Emergency Response</li> </ul>
Siting & Construction for ASTs (after effective date)	<ul style="list-style-type: none"> <li>DEQ to establish regulations</li> </ul>	<ul style="list-style-type: none"> <li>New &amp; Retrofitted Performance Standards</li> </ul>		
Leak Detection & Inventory Control	<ul style="list-style-type: none"> <li>DEQ to establish to regulations</li> </ul>	<ul style="list-style-type: none"> <li>Inventory Control Testing</li> <li>Leak Detection</li> <li>Groundwater Characterization &amp; Monitoring</li> </ul>		
Inspection & Evaluation	<ul style="list-style-type: none"> <li>DEQ to establish to regulations</li> <li>Periodic Inspections at least quarterly</li> </ul>	<ul style="list-style-type: none"> <li>Recordkeeping</li> <li>Visual Daily &amp; Weekly Inspection</li> </ul>		

Aboveground Storage Tank Regulate Oild Elements	Proposed	Current	Current	Current
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	<ul style="list-style-type: none"> <li>• <b>Certified Inspections for ASTs &gt;5000 gallons</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Formal Inspection</b></li> <li>• <b>Certification performed by a professional engineer</b></li> </ul>		
<p><b>Release Response</b></p>	<ul style="list-style-type: none"> <li>• <b>DEQ to establish to regulations</b></li> <li>• <b>DEQ approved Plan for &gt;25000 gallons aggregate AST sites</b></li> <li>• <b>Plan distributed to local authorities</b></li> <li>• <b>No threshold RQ for HS release</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Oil Discharge Contingency Plan</b></li> </ul>		
<p><b>Financial Assurance</b></p>	<ul style="list-style-type: none"> <li>• <b>DEQ to establish to regulations</b></li> <li>• <b>Demonstrate financial responsibility</b></li> </ul>			
<p><b>Training &amp; Certification for certified inspectors</b></p>	<ul style="list-style-type: none"> <li>• <b>DEQ to establish to regulations</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Professional engineer</b></li> </ul>		
<p><b>Publicly Available Information</b></p>	<ul style="list-style-type: none"> <li>• <b>AST GPS locations</b></li> <li>• <b>Annual Report</b></li> </ul>			<ul style="list-style-type: none"> <li>• <b>Limitations on access to site data</b></li> </ul>

## Amendments Recommended:

1. Focus on Clean Water Act Priority Pollutants because EPA has published analytical test methods for them. According to the EPA, the Priority Pollutant list makes the list of toxic pollutants more usable, in a practical way, for the purposes assigned to EPA by the Clean Water Act. For example, the Priority Pollutant list is more practical for testing and for regulation in that chemicals are described by their individual chemical names. The list of toxic pollutants, in contrast, contains open-ended groups of pollutants, such as "chlorinated benzenes." That group contains hundreds of compounds; there is no test for the group as a whole, nor is it practical to regulate or test for all of these compounds.
2. Mirror Clean Water Act Extremely Hazardous Substances regulations, including exemptions from release reporting, outlined in [40 CFR 355.31](#).
3. Apply the requirements to 40,000 gallon tanks because the Elk River Spill in WV (the case study the James River Association is wanting to avoid) was a 40,000 gallon tank and these are the tanks that are more likely to have catastrophic failures/releases that reach state waters.
4. Require discharge response plan to be filed with DEQ Director for all 25,000+ gallon tanks, and local water authorities and emergency response agencies to be notified.
5. Direct DEQ to establish a working group to harmonize federal, state and local requirements to reduce duplicative requirements and compliance cost and to improve compliance training. The working group shall complete its work by April 1, 2021.
6. Direct DEQ to initiate Notice of Intended Regulatory Action by July 1, 2021 for aboveground storage tanks establishing (i) voluntary inspection standards; (ii) emergency planning and release notification requirements consistent with [40 CFR 355](#); (iii) enforcement provisions; (iv) training or certification requirements for persons conducting inspections or (v) cleanup requirements.

## Resources:

VA DEQ, *Chemical Storage in Virginia, 2016* – <https://rga.lis.virginia.gov/Published/2016/RD532/PDF>

VA Department of Emergency Management, *Tinker Creek Hazmat Spill Update, July 2017* - <http://www.vaemergency.gov/tinker-creek-7-29-17-hazmat-spill-update/>

Safer Chemicals – <http://saferchemicals.org/mind-the-store/>

NCEL – <http://www.ncel.net>

West Virginia Department of Environmental Quality – *Tank Regulation* - <https://dep.wv.gov/WWE/ee/tanks/abovegroundstoragetanks/Pages/FinancialResponsibilityGuidance.aspx>