Aboveground Storage Tank Regulations and the Mining Industry

Joe Sizemore, Assistant Chief Inspector
Environmental Enforcement
Applicable Regulations

• Chapter 22, Article 30 – AST Act
  – Legislative Rules are being promulgated
• Spill Prevention Control and Countermeasures (SPCC)
• 47 CSR 58 Groundwater Protection Rule
• 38 CSR 2F – Groundwater Protection Rules Coal Mining Operations
Spill Prevention Control and Countermeasures (SPCC)

- Oil Pollution Prevention regulation (40 CFR part 112)
  - Originally promulgated in 1973
  - Specifies requirements for prevention of, preparedness for, and response to oil discharges
- Requirements help prevent oil discharges from reaching navigable waters or adjoining shorelines.
- Certain facilities, are required to develop SPCC Plans that describe equipment, workforce, procedures, and training to prevent, control, and provide adequate countermeasures to a discharge of oil.
- Administered by USEPA
47 CSR 58 – Ground Water Protection Rule

• WVDEP Legislative Rule – effective since 1994
• Scope is broad and includes loading / unloading areas, subsurface borings, outside storage areas, impoundments, drums, pumps, pipelines, sumps and **tanks**.
• Requires secondary containment. Specifies 72 hours of containment
• Lacking in specific performance standards
38 CSR 2F – Groundwater Protection Rules Coal Mining Operations

• Effective since 1994
• Establishes a series of practices for the protection of groundwater at coal mining operations
• Section 3.6 outlines requirements for sumps and tanks
• Very similar to 47 CSR 58
WV Code Chapter 22, Article 30

- “AST Act”
- Originally established via Senate Bill 373 in the 2014 Legislative Session
- Revised via Senate Bill 423 in the 2015 Legislative Session
- Response to the Freedom Industries Spill
Applicability of the AST Act

• Statutory Tank Definition
• Found at 22-30-3(1)
• A tank is:
  – Made to contain 1,320 gallons of fluid
  – 90% above the ground, non-earthen
  – Remains in one location for 365 days
Applicability of the AST Act

• A tank is not:
  – A shipping container regulated by Railroad Safety Act or DOT
  – Barges or boats
  – Swimming Pools
  – Process Vessels including wastewater treatment devices
  – Devices containing water (drinking water, surface water, groundwater...)

west virginia department of environmental protection
Promoting a Healthy Environment
Applicability of the AST Act

• A tank is not:
  – Device containing food or food grade materials used for human or animal consumption
  – Located on a farm and contents are not distributed commercially *except* when the tank is in a Zone of Critical Concern
  – Empty Tanks held inventory or offered for sale
  – Pipe lines and liquid traps
  – Electrical Equipment
What Must a “Tank” do?

- Register by July 1, 2015
  - (previously October 1, 2014)
  - Nearly 50,000 tanks have been registered since June 10, 2014
  - Registration is electronic
  - Lots of tank data in now available
What Must a “Tank” do?

- Display the required signage
- Owner’s / operator’s emergency contact phone number
- DEP Spill Line (800-642-3074)
- Tank registration number
  - 3 digit county code and 8 more numbers
Tank Capacity
All Tanks

- **Tanks ≤ 10000 gallons**: 40796
- **>10000 but <50000 gallons**: 5652
- **≥50000 gallons**: 2262

West Virginia Department of Environmental Protection
Promoting a Healthy Environment
Tank Ages

All Tanks

- Tanks >75 years old
- Tank between 50 to 75 years old
- Tanks between 30 to 49 years old
- Tanks < 30 years old

- 36481
- 9943
- 1898
- 388
Noteworthy AST Data

• Oldest tank
  – 124 years old
  – Installed in 1891
  – 4,200 gallon tank (100 barrel)
  – Crude and brine

• Tanks over one million gallons
  – 248

• Largest Tank
  – 9.2 million gallon
  – Natural gas condensates
More Important Definitions

• Public Water System
  – Supplies water for human consumption
  – On average of 25 individual per day for at least 60 days per year
  – Or has at least 15 service connections
  – Bathhouses are specifically excluded
More Important Definitions

• Zone of Critical Concern (ZCC)
  – Related to Public Surface Water Supply Source or Public Surface Water influenced groundwater supply source
  – Uses a mathematical model to calculate a five hour flow time above the water intake
  – Measured 1,000 feet from each bank in the principal stream and 500 feet from each bank in the tributaries
  – This was recently recalculated and it grew significantly
More Important Definitions

• Source Water Protection Area
  – Also called a Wellhead Protection Area
  – Related to a public groundwater supply source
  – Uses a mathematical model to calculate the area in an aquifer that supplies water to a public water supply well with-in a five year time of travel
More Important Definitions

• Zone of Peripheral Concern (ZPC)
  – Five hour flow time using a mathematical model
  – Above a ZCC which creates a protection zone of 10 hours above a water intake
  – Measured 1,000 feet from each bank in the principal stream and 500 feet from each bank in the tributaries
  – A “new” term and recently calculated for the first time
More Important Definitions

• Regulated Level 1 tank
  – Located in a ZCC, source water protection area or public surface water influenced groundwater supply source area; or
  – Contains substance that appears on the “List of Lists” in a concentration of 1% or greater; or
    • CERCLA, EPCRA and 112(r) of the CAA
    • Does not include petroleum (CERCLA petroleum exclusion)
  – 50,000 gallons or greater in size regardless of contents or location
More Important Definitions

- Regulated Level 2 tank
  - Located in a ZPC and is not a Level 1
Tank Locations

Currently in use and TOS Tanks
43,145

- In ZCC: 3,722 (8.63%)
- In ZPC: 3,879 (8.99%)
- In SWPA: 647 (1.50%)
- Capacity >= 50,000G: 946 (2.19%)
List of Lists

• 1,836 contain material found on the list of lists

• 1,391 are level one because of contents ONLY
How many tanks will be regulated?

11,000(ish)
AST Act Requirements

- Register Tanks and collect a Fee
- Regulate Level 1 to a higher standard
- Promulgated Rules
  - Design, construction and maintenance of ASTs and secondary containment
  - Leak detection
  - Record Keeping
  - Corrosion prevention
  - Closure Requirements
  - Fees
AST Act Requirements

- Permit Amendments
- AST Evaluation and Certification at regular intervals
  - Evaluation by PE, API or STI Certified Individuals
- Financial Responsibility
- Corrective Action
- Spill Prevention Response Plans or certification of a GPP or SPCC
AST Act Requirements

• Notice to Government and Water Companies
  – Public water system, state, county and municipal emergency response organizations

• Signage

• Public Access to Information
Legislative Rules

• 47 CSR 63 – AST Rule
  – Specific tank operation and management requirements

• 47 CSR 64 – AST Fee Rule
  – Annual fees for regulated tanks

• 47 CSR 65 – Administrative Penalty Rule
  – Resolution of enforcement actions and assessment of penalties
What about “unregulated” ASTs?

• Don’t meet the statutory definition
• Don’t meet the Level 1 or 2 definition
  – Approximately 32,000 of these
• What Changed?

• AWARENESS
General Themes

• Mining Industry ASTs are regulated like any other AST

• Tanks are tanks

• It’s all about the tank definition, location, contents and size
Mapping Tool

West Virginia Water Resources Management Plan

Print HUC & Watersheds

7:44 PM
10/21/2015

west virginia department of environmental protection
Promoting a Healthy Environment
Electronic Submission System

Enter Login Information:

Login:  
Password:  

Enter Site

Once you have successfully entered your login information, any period of inactivity for 2 hours will log you out of the system.

Forgot login or password?
Links

• Mapping
  http://tagis.dep.wv.gov/WVWaterPlan/

• Electronic Submission System
  https://apps.dep.wv.gov/eplogin.cfm
Do I need to register my AST?
Learn more →

Do I need to modify my existing registration due to the updated AST Act, effective June 12, 2015?
Learn more →

Overview of the Aboveground Storage Tank Act and Its Implementation

Enrolled Final Version
Senate Bill No. 373

AST Registration
Graphical Information

Featured Links
Enrolled Final Version
Senate Bill No. 373 (Original Act)
Enrolled Final Version Senate Bill No. 423 (Amended Act)
Thank You!!

Questions?

Joe Sizemore (304)926-0499, 1314
joe.m.sizemore@wv.gov