

AST REGISTRATION PIPE INSPECTION PE REQUIREMENTS

David D. Bradeson, P.E.
Chemung Contracting Corporation

AST REGISTRATION

REQUIRED

9 VAC 25-91-20

- Part II – individual tank of 660 gal. or greater or aggregate greater than 1,320 gal.
- Part III – individual tank greater than 25,000 gal. or with an aggregate of 25,000 gal.
- Part IV – ODCP Plan is required if individual 25,000 gal or aggregate of 25,000 gal. or greater
- Part V – Groundwater Characterization Study (GCS) - Only for 1 million gal or greater

EXCLUSIONS

9 VAC 25-91-30

- AST with less than 660 gal.
- AST regulated by DMME under Chapter 22.1 of Title 45.1
- AST used to store propane, butane or other LP gases
- Equipment
- AST containing dredge spoils
- Pipes or piping beyond the first valve
- AST storing asphalt and asphalt compounds (excluded from PART III only, not PART IV-ODCP)
- Others (total of 21 and 3 partial)

APPLICATION FEE'S

9 VAC 25-91-60

- If fall under Part IV – required 90 days prior to commencement unless the facility previously met the requirements, then 90 days prior to the ODCP expiration
- Fee's required for:
 - Initial registration
 - New installations
 - Conversion
 - AST brought back into use after permanent closure
 - Registration renewal (5 years)
 - Change in ownership
- Fee's
 - One Facility – One AST - \$25
 - One Facility – Two or more AST -\$50
 - Two Facility – One AST each - \$50
 - Two Facility - One AST at one and two or more at another - \$75
 - Two Facility – Two or more AST each - \$100
 - Three Facility – One AST each - \$75
 - Maximum Fee for multiple Facility's capped at \$100

Part II - 660 gal or greater or with an aggregate greater than 1,320 gal.

- Duly Authorized Representative – made in writing by the owner and is submitted with the application and the owner/agent must sign the certification statement
- Registration includes
 - Facility and AST owner and operator information
 - Facility information
 - Tank and piping information
 - Other information requested
 - Owner certification
- Renewal every 5 years
- Required Notifications
 - Upgrade
 - Major repair
 - Replacement
 - Change in service
 - No fee for notifications

Part III – 25,000 gal to one million gal.

- Inventory control (to detect 1.0% variation monthly and gauged no less than every 14 days) unless
 - AST and piping is totally off the ground
 - 5,000 gal or less inside a building or structure designed to contain a discharge
 - Contain No. 5 or No. 6
- Formal inspections (not required for AST less than 12,000 gal.)
- Secondary containment
 - Maintained per 40 CFR Part 112 and certified every 10 year
- Safe fill and shut down procedures
 - All shall institute a Safe fill, shutdown, and transfer procedure
- Spill containment materials at transfer areas and system designed to hold at least one compartment of the loaded vehicle and follow 40 CFR part 112

Part III cont.

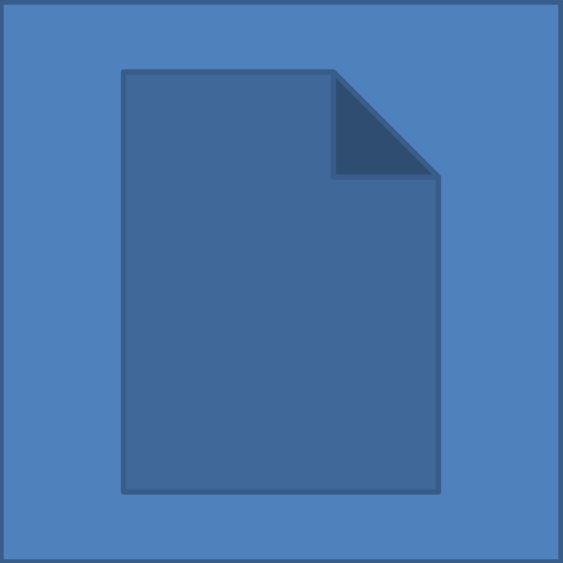
- Visual daily and weekly inspections
 - Daily inspection during normal operation and documented (notation in the facility records)
 - Walk- through
 - Ground surface for signs of leakage
 - Accumulation of water in dike or berm areas and drain valves are secure
 - Visual inspection of exterior tank shell for signs of leakage
 - Evaluation of condition

PART III cont.

- Weekly inspection (using a checklist)
 - Signed, dated, and time
 - Includes but not limited to:
 - Containment dike or berm in satisfactory condition
 - Containment free of excess water
 - Valves secured
 - Tank shell surface inspected for rust or deterioration
 - Ground surface around tanks for signs of leakage
 - Tank water draw-offs secure
 - Fill valves secure
 - Inspect valves and pipe flanges for signs of leakage
 - Tank gauges inspected and operational

PART III cont.

- Training
 - Establish a training program and train prior to conducting inspections and then every 3 years
 - Occupational safety, hazard recognition, ppe, facility operations
 - Procedures for daily and weekly inspections
 - What to do upon recognition of a hazard
 - How to evaluate the condition of AST tanks
- Leak Detection
 - Operate, maintain, monitor and keep records as required and per the approved ODCP
- Pipe Inspections



PIPE INSPECTIONS

9 VAC 25-91-130 (A.6.)

- Cathodic protection required for buried piping
- All new piping shall be pressure tested prior to being put into service and all existing shall be tested by June 30, 2003
- Intervals not to exceed five years
 - Hydrostatic test at 150% maximum allowable working pressure (MAWP)
 - Inert gas test to 110% MAWP
 - **Conducted and certified by an API authorized piping inspector in conformance with API 570 Piping Inspection Code**
 - Visual and Ultrasonic Thickness
 - Or approved equivalent

P.E. REQUIREMENTS

DEQ and EPA

DEQ

Secondary Containments

- Must be designed or design capacity certified by a Professional Engineer
 - 110 % of volume of tank requiring containment
- The certification statement should read:
 - “I hereby certify that the secondary containments for [insert facility name or tank number] is in compliance with the applicable requirements of 40 CFR 112, NFPA 30, and 29 CFR 1910.106.”

EPA SPCC

Spill Prevention, Control, and Countermeasure Plan

Self Certifications (do not require P.E.)

- TIER I qualified facilities with containers less than 5,000 gal. can self certify using the template provided by EPA
- TIER II qualified facility is less than 10,000 gal.
 - No discharge exceeding 1,000 gal
 - No two discharges exceeding 42 gal. within 12 month period

EPA SPCC cont.

For TIER I and TIER II a Professional Engineer Certification is required for a portion of a Qualified Facilities Self-Certified Plan for

- alternate measures to provide equivalent environmental protection
- determination of impracticality of secondary containment and provide alternate measure

EPA SPCC cont.

40 CFR 112.3(d)

PE Certifications are required for facilities with aggregate capacity greater than 10,000 gal.

- Certifies
 - Familiar with the requirements
 - Has visited and examined the facility
 - Prepared in accordance with good engineering practice and industry standards
 - Established testing and inspections procedures
 - Plan is adequate for the facility
- Certifies Technical Amendments
- Certifies Secondary Containment
- Review Every 5 years