

**Pumper/Service Provider/Septic Technician/Service Technician/Septic Tank
Service Provider/Septic Tank Service Technician – Need to Know**

- I. The professional will understand the various techniques and responsibilities for performing tank maintenance.**
 - A. Review Job Order
 - 1. Correct address
 - 2. Photo of actual address provides proof of location
 - B. Parking Safely
 - 1. Cones
 - 2. Flashers
 - C. Look Professional
 - 1. Appropriate clothing
 - a. Uniforms preferred
 - b. Appropriate headwear, footwear
 - 2. Clean clothing
 - 3. Personal grooming
 - 4. Clean vehicle
 - 5. No spitting of any kind
 - 6. Show some kind of identification
 - a. Business card, e.g.
 - D. Overview of What Activities Will be Taking Place and Why
 - a. Customer invited to observe so knowledgeable of what is happening
 - (1) State safety precautions while observing
 - E. Document Surrounding Area
 - 1. Photos help document how the area looked like before the service activity begins
 - F. Underground Tank Location Techniques
 - 1. Electronic devices
 - 2. Plumber's snake
 - 3. Witching
 - 4. Records
 - 5. Electronics and camera
 - G. Once Tank is Located
 - 1. Driver should be aware of driving surface
 - 2. Check clearances, obstacles
 - 3. Be cautious of driving on grass if dragging a hose will cause less damage
 - H. Removing the Maintenance Hole Cover
 - 1. Locating and removing all access lids/covers
 - 2. Buried lid – Must pump through manhole and not observation hole
 - 3. Landscape protection
 - a. Tarps for soil removal to uncover access
 - b. Sod removal
 - 4. Safety concerns - Blue Stake
 - a. Tools needed

- b. Slip and fall
- 5. Above-ground lid
- 6. Concrete lid
 - a. With loops
 - b. Without loops
- 7. Plastic lid
 - a. Special wrench
- 8. Tools needed
 - a. Bar/hooks
 - b. Pull/strap/chain
 - c. Tool box with various screwdrivers
 - d. Shovels
- I. Replacing and/or Adding a Manhole Lid
 - 1. Legal requirements
 - a. New systems
 - b. Existing systems
 - (1) Requirements apply to non-complying tank
 - (a) Inform homeowner about safety concerns
 - (b) Replace the unsafe lid
 - (2) Secure unsecured lids
- J. Manhole and Lid Specifications
 - 1. Adding risers
 - a. Determine if permit needed
 - b. Determine if service technician needs a license to add riser
 - c. Pumper's authority to add risers
 - (1) AZ current = recommendation only
 - (2) future = requirement?
 - d. Plastic risers
 - (1) Advantages
 - (2) Disadvantages
 - (3) Riser requirements – strength, height, diameter
 - (4) Riser-to-tank seal – check for watertight seal
 - (5) Lid-to-riser seal – check for watertight seal
 - e. Concrete risers
 - (1) Advantages
 - (2) Disadvantages
 - (3) Riser requirements – strength, height, diameter
 - (4) Riser-to-tank seal – check for watertight seal
 - (5) Lid-to-tank seal – check for watertight seal
 - K. Observation Port(s) on the Tank (for OBSERVATION purposes ONLY)
 - 1. Locating
 - 2. Check for damage
 - 3. Cap/cleanout
 - 4. For observation purposes only, not for pumping

L. Checking Tank Operation

1. Identify all compartments
 - a. How many
 - b. Condition
2. Checking liquid levels
 - a. Low level and high levels (surging)
 - (1) Identification
 - (a) observation of liquid level at air-water interface of inlet and outlet
 - (i) liquid level should be at the invert of the outlet and below the invert of the inlet
 - (ii) indications of high-water level
 - (iii) indications of low-water level
 - (2) Significance
 - (a) low level indicates
 - (i) roots
 - (ii) cracks
 - (iii) leakage
 - (b) high levels indicate
 - (i) high peak instantaneous flow
 - (ii) leaking fixture
 - (iii) hydraulic overload (undersized system)
 - (iv) blocked outlet baffle
 - (v) baffle no longer in place
 - (vi) scum levels too thick
 - (vii) blocked supply pipe (solids, grease, wipes)
 - (viii) improper installation or settled in outlet pipes
 - (ix) supply pipe sloped in wrong direction
 - (x) tank installed backwards
 - (xi) tank not level (outlet higher than inlet)
 - (xii) pump not operating
 - (xiii) failing drainfield
 - a. check liquid levels in inspection pipes
 - (3) Reporting low-level or high-level observations
 - (a) if possible, provide cause
 - (b) if possible, provide recommendations to remedy
 3. Checking stratification
 - a. Identification methods
 - (1) Sludge judge
 - (2) Stick w/towel and stick with foot
 - (3) visual evidence of scum layer
 - (4) Identification of toxic substances (odor, color, told of discharge, factory process water connected to plumbing etc.)
 - b. Significance of no stratification
 - (1) Toxic substances
 - (2) Recently pumped

- (3) Medicine
- (4) Leaks
- (5) Peak flow flushing
- (6) No baffles
- (7) Hot water discharge
- (8) Water softeners
- (9) Fabric softeners
- (10) Enzymes
- (11) Bath salts
- (12) Paint
- c. Toxic/hazardous waste response
 - (1) Signs
 - (a) odor
 - (b) color
 - (2) Procedures when encountering toxic/hazardous waste
 - (a) [need to flesh this out]
- 4. Checking baffles
 - a. Identifying and assessing/evaluating baffles
 - (1) Inlet
 - (2) Outlet
 - (3) Interior
 - b. Construction types
 - (1) Concrete
 - (2) Plastic
 - (3) Wood
 - (4) Clay
 - (5) Orangeburg
 - (6) Cast iron
 - (7) Other
 - c. Observation methods
 - (1) Mirror
 - (2) Camera & other technology
 - (3) Manhole cover removal
 - (4) Observation pipe
 - d. Significance of no baffles
 - (1) Regulatory
 - (2) Operational
 - e. Repair baffles
 - (1) Determine if permit needed
 - (2) Determine if service technician needs a license to repair baffle
 - (3) Authorized to repair baffle
 - (a) current: recommendation
 - (b) future: requirement to repair?
 - (4) Methods of repairing baffles

M. Safety

1. Electrical
 - a. Hazards
 - b. Precautions
2. Pathogens
 - a. Hazards
 - b. Precautions
3. Gases
 - a. Poisonous
 - (1) Hazards
 - (2) Precautions
 - b. Explosive
 - (1) Hazards
 - (2) Precautions
 - c. Confined space entry
4. Needles
 - a. Hazards
 - b. Precautions
5. Chemicals
 - a. Hazards
 - b. Precautions

N. Removal of Material

1. Safety
 - a. Keep persons/animals away from immediate area
2. Equipment
 - a. Truck
 - (1) Suction/lift requirements
 - (a) backwash capabilities
 - (b) lift/distance capabilities
 - (c) know your vehicle's operations (liquid capacity, e.g.)
 - (2) Hose location
 - (a) hose whipping may damage landscaping and nearby fixtures
 - (3) Know your Department of Transportation regulations
 - (a) know the requirements for road travel
 - (i) which roads are affected (state, county, township, city streets)
 - (ii) what are the typical limits
 - (iii) dates typically imposed
 - (iv) weight restrictions (how to calculate with the truck)
 - (4) Know the requirements for drivers
 - (5) Avoid sewage spills by never allowing hose to come out of tank until valve on truck is closed
2. Back flush/complete removal
 - a. Significance
 - b. Methods

3. Post cleaning
 - a. Do not disinfect septic tank
 - b. Do not add starters
 - c. Follow manufacturer's recommendations
4. Dewatering and return filtered liquid to tank (requires special equipment)
5. Additives
6. Spills
 - a. Know your reporting requirements
- I. Dosing Chamber
 1. Tools required
 2. Manufacturer's recommendation
- J. Other Pumping Situations
 1. Grease traps
 2. Pumping requirements
- K. Know Your Local Disposal Requirements