

GEORGIA FARM*A*SYST



**FARM
ASSESSMENT
SYSTEM**

PETROLEUM STORAGE & HANDLING

Adam Speir, Public Service Representative
Biological and Agricultural Engineering

PRE-ASSESSMENT:

Why Should I Be Concerned?

A small gasoline leak of one drop per second can often go unnoticed, but it could result in the release of about 400 gallons of gasoline in one year. Not only does this cause economic loss, but it also causes environmental and health problems. Even small amounts of gasoline can enter and contaminate ground and surface water, creating health risks for anyone who drinks it. According to the United States Environmental Protection Agency, nearly one in four underground storage tanks in the United States may be leaking. The risk of leaking increases dramatically for tanks that are more than 20 years old, those not protected against *corrosion* and those improperly installed.

Petroleum fuels contain a number of potentially toxic compounds including common solvents such as benzene, toluene, ethyl benzene and xylene, and additives such as ethylene dibromide and organic lead compounds. When mixed with water in low concentrations, these contaminants cannot be detected by smell or taste but can cause serious health problems. For example, benzene, considered a human carcinogen, has a drinking water standard of less than five parts per billion. These health hazards are compounded by the fact that products such as gasoline, diesel fuel and fuel oil can move rapidly through soil surface layers and into ground water, posing hazards to people and animals who drink it.

Fuel storage also presents a substantial fire hazard. Vapors from an underground leak that collect in basements, sumps or other underground structures have the potential to explode. In addition, owners of tanks that leak are responsible for cleanup costs that typically range from \$10,000 to \$100,000, or more. It may be difficult to sell property that contains an old underground storage tank.

How Does This Assessment Help Protect Drinking Water and the Environment?

- This assessment allows you to evaluate the environmental soundness of your farm and operational practices relating to your petroleum practices.
- You are encouraged to complete the entire document.
- This assessment asks a series of questions about your petroleum storage and handling practices.
- The assessment evaluation uses your answers (rankings) to identify practices or structures that are at risk and should be modified.
- The petroleum facts give an overview of environmental practices that can prevent pollution.
- You are encouraged to develop an action plan.
- Farm *A*Syst is a voluntary program.
- The assessment should be conducted by you for your use. If needed, a professional from the University of Georgia Cooperative Extension or one of the other partnership organizations can provide assistance in completing the assessment or action plan.
- No information from this assessment needs to leave your farm.

* *Italicized words are defined in the glossary.*

ASSESSMENT:

Assessing Your Petroleum Storage Structures and Practices

For each category listed on the left, read across to the right and circle the statement that best describes conditions on your farm. If a category does not apply (for example, if it asks about underground storage tanks, and you don't have one), then skip the question. Once you have decided on the most appropriate answer, look above that description to find your rank number (4, 3, 2 or 1) and enter that number in the "RANK" column. The entire assessment should take less than 30 minutes.

PETROLEUM STORAGE AND HANDLING					
	LOW RISK (rank 4)	LOW-MOD RISK (rank 3)	MOD-HIGH RISK (rank 2)	HIGH RISK (rank 1)	RANK
LOCATION (All Tanks)					
Slope of land near tank and well	Tank is down slope from well.	Tank is at grade with well in a heavy, fine-texture soil (clay or silt loam).	Tank is at grade with well in a coarse soil (sand or sandy loam).	Tank is up slope from well.	
Distance separating well or surface water and tank	Tank is over 500 feet from any well or surface water.	Tank is 150 to 500 feet from any well or surface water.	Tank is 50 to 149 feet from any well or surface water.	Tank is less than 50 feet from any well or surface water.	
Site characteristics and tank location	Well-drained soil. Water table always beneath tank. Tank is more than 40 feet from any building.	Moderately well-drained soil. Occasional high water table. Tank is more than 40 feet from any building.	Tank is located where soil is saturated seasonally. Tank is more than 40 feet from any building.	Tank is located where soil is saturated often. Tank is less than 40 feet from any building. **	
DESIGN AND INSTALLATION (All Tanks)					
Tank type and age	Double walled, synthetic tank or tank protected from rust by cathodic protection system.	Steel tank less than 15 years old, coated with paint or asphalt.	Coated steel tank 15 or more years old, or bare steel tank less than 15 years old.	Bare steel tank 15 or more years old.	
Spill and overfill protection	Impermeable surface plus automatic shutoff.	Impermeable surface plus overfill alarm.	Either impermeable surface or overfill alarm.	No overfill protection, tank on gravel or dirt.	

****These conditions are in violation of state and/or federal law**

PETROLEUM STORAGE AND HANDLING

	LOW RISK (rank 4)	LOW-MOD RISK (rank 3)	MOD-HIGH RISK (rank 2)	HIGH RISK (rank 1)	RANK
Piping	All hoses, valves and piping are protected from rust, sloped back to tank and inspected regularly. Check valve at pump (not at tank).	All hoses, valves and piping are protected from rust, can flow back to tank and are inspected regularly.	All hoses, valves and piping are protected from rust, but do not drain freely and are inspected regularly.	Piping bare and cannot drain freely to tank, leaks under pressure or is not inspected regularly.	
Tank Installation	Underground tank installed in accordance with American Petroleum Institute (API) recommendations. Above-ground tank inspected and approved by state fire marshal.	New tank installed according to recommendations provided by seller.	No information on installation.	Installed by untrained individual without backfill, spill containment, anchors and other prescribed protection and recommended practices.	
DESIGN AND INSTALLATION (Above-Ground Tanks Only)					
Tank Enclosure	Tank is in low activity area surrounded by fence, has attached pump nozzle or fence is always locked when not in use.	Tank is in low activity area with fence or barriers, has attached pump nozzle or fence is usually locked when not in use.	Tank is in high activity area with fence or barriers, has attached pump nozzle or fence that is seldom locked.	Tank is in high activity area without secured fencing or barriers.	
MONITORING (All Tanks)					
Tank testing, labeling and leak detection	Visual inspection of above-ground tanks is easy. Underground tanks are inventoried regularly by tank sticking and tank tightness test every other year.	Regular visual inspection and inventory, monitored frequently, occasional tank tightness test.	Visual testing difficult due to obstructions; no tank test but fuel consumption is monitored.	Fuel leaks or no visual inspection, tank testing or inventory control in place.	

***These conditions are in violation of state and/or federal law*

	LOW RISK (rank 4)	LOW-MOD RISK (rank 3)	MOD-HIGH RISK (rank 2)	HIGH RISK (rank 1)	RANK
Secondary containment	Double walled tank or tank placed within concrete pad and dike able to hold 110% of tank capacity.	Tank placed on concrete pad with curbs or dikes of low permeability soils, able to hold 110% of tank capacity.	Tank placed on pad or concrete blocks without curbs or dikes.	<i>Tank placed on ground,** with no secondary containment.</i>	
TANK CLOSURE (Underground Tanks)					
Unused tank	Tank taken from ground according to regulations. Excavation site and ground water checked for evidence of contamination and contaminated material removed.	Tank removed or emptied and filled with a solid, inert material such as sand or concrete. Excavation site checked for evidence of contamination and contaminated material removed.	Tank removed or emptied and filled with a solid, inert material such as sand or concrete. Excavation site not checked for evidence of contamination and contaminated material not removed.	<i>Abandoned tank left in ground and not used for more than 12 months.**</i>	
USED MOTOR OIL & FLUIDS					
Disposal of used motor oil	Oil is stored in a sealed, approved container in a secure building until taken to a collection or recycling center.	Oil is stored in a non-approved container in an unsecured building and periodically taken to a collection or recycling center.	Oil is disposed of with household waste through a collection service or at a county dump.	Oil is drained directly on the ground or dumped on the farm.	

***These conditions are in violation of state and/or federal law.*

Number of Areas Ranked _____
 (Number of questions answered, if all answered, should total 12.)

Ranking Total _____
 (Sum of all numbers in the "RANK" Column)

ASSESSMENT EVALUATION:

What Do I Do with These Rankings?

STEP 1: Identify Areas Determined to be at Risk

Low risk practices (4s) are ideal and should be your goal. Low to moderate risk practices (3s) provide reasonable protection. Moderate to high risk practices (2s) provide inadequate protection in many circumstances. High risk practices (1s) are inadequate and pose a high risk for causing environmental, health, economic or regulatory problems.

High risk practices (rankings of “1”) require immediate attention. Some practices may require little effort to correct, while others could be major or costly and may require planning or prioritizing before you take action. All activities identified as “high risk” or “1s” should now be listed in the action plan. Rankings of “2s” should be examined in greater detail to determine the exact level of risk and attention should be given accordingly.

STEP 2: Determine Your Petroleum Risk Ranking

The Petroleum Risk Ranking provides a general idea of how your petroleum storage and handling practices might be affecting your ground and surface water, contaminating your soil and affecting your air quality.

Use the rankings total and the total number of areas ranked on page 4 to determine the Petroleum Risk Ranking.

RANKING TOTAL ÷ TOTAL NUMBER OF AREAS RANKED = PETROLEUM RISK RANKING

_____ ÷ _____ = _____

PETROLEUM RISK RANKING.....	LEVEL OF RISK
3.6 to 4	Low Risk
2.6 to 3.5	Low to Moderate Risk
1.6 to 2.5	Moderate Risk
1.0 to 1.5	High Risk

This ranking gives you an idea of how your petroleum storage and handling practices might be affecting your drinking water. This ranking should serve only as a very general guide, and not as a precise diagnosis since it represents the average of many individual rankings.

STEP 3: Read the Section on Improving Your Petroleum Storage and Handling Practices

While reading, think about how you could modify your practices to address some of your moderate and high risk areas. If you have any questions that are not addressed in the petroleum facts portion of this assessment, consult the references on page 12 or contact your county Extension agent for more information.

STEP 4: Transfer Information to the Total Farm Assessment

If you are completing this assessment as part of a “Total Farm Assessment,” transfer your petroleum risk ranking and your identified high risk practices to the overall farm assessment.

PETROLEUM FACTS:

Improving Petroleum Products Storage and Handling

STORAGE TANK LOCATION

One of the most important aspects of your liquid petroleum storage tank location is how close it is to any wells, springs, rivers, lakes or other water resources. **Generally, you should try to locate your storage tanks at least 500 feet from any well to provide adequate assurance that subsurface flow or seepage of contaminated water will not reach your drinking water.** Keep in mind that even though diesel fuel and fuel oil are denser than gasoline and move more slowly through the soil, they too will eventually reach ground water when a leak or spill occurs.

Every site has unique geologic and hydrologic conditions that can affect ground water movement. How quickly the petroleum product reaches ground water also depends upon local soils. The more porous the soil (sands and gravels, for example), the faster the rate of downward movement to ground water. The further the distance between your tank and water source, the more assurance you have that contaminated water will not reach your drinking water. The direction that groundwater flows frequently follows surface topography. In other words, ground water usually flows downhill. If possible, the tank should be located downhill from the well.

Regulations for siting above-ground tanks deal more with the explosion potential of tanks than the ground water protection potential. If you have an above-ground tank, Georgia law requires that it be located at least 40 feet from any building. Removing all vegetation and debris around above-ground tanks can also reduce fire hazards and allow you to detect leaks earlier.

All new tanks should be at least 500 feet from your drinking water well and any water resources. Also consider the following site properties when locating a new tank:

- **Soil stability** - Assess the ability of the underlying soil to support both underground and above-ground tanks. For special tank locations, such as hillsides, be sure to properly anchor and hold tanks in place. Be sure the pipes cannot twist or break if the tank is bumped or disturbed. Regardless of soil conditions, above-ground tanks must be supported by concrete blocks at least 6 inches above the soil surface to protect them from *corrosion*. A concrete pad or an impermeable liner that can serve as a collection device for spills is preferred.
- **Current and previous land use** - Sites that contain abandoned pipes and tanks, agricultural drainage tiles or waste materials pose special installation problems. Any metal already in the ground at your chosen site will increase *corrosion* rates for the new tank.
- **Traffic** - Assess traffic patterns around the tank. Determine if the location of the tank or dispense will block movement of farm vehicles during refueling or cause special problems if any work is needed on the tank. Protect piping from collisions with farm and fuel vehicles.
- **Depth to ground water** - Floodways or areas where the water table is close to the surface are poor locations for storage tanks. Tanks placed in such areas require special installation. To reduce pollution potential, an above ground tank may be preferred to an underground tank.
- **Soil Characteristics** - New underground storage tanks are required to be installed using backfill materials recommended by the manufacturers. Use clean backfill during installation to decrease the negative effects of surrounding soils. Highly corrosive clays, wet soils and acid (low pH) soils can significantly speed up *corrosion* of unprotected underground metal tanks and piping.

TANK DESIGN AND INSTALLATION

If you install a fuel storage tank, carefully follow the manufacturer's recommended practices for installation. Proper installation is one sure way to minimize the leaking potential of the tank and the piping connected to it. Even scratches in a metal tank caused by careless installation can increase *corrosion* and tank deterioration.

Underground Tanks

All new underground storage tanks and related piping must be constructed of non-metallic materials such as fiberglass, or have *corrosion protection*. A tank is considered to be underground if 10 percent or more of the total volume, including pipes, is below the ground surface. A farm tank is an underground tank on a tract of land devoted to crop or animal production and associated residences and improvements. A farm tank must be located on the farm property.

Methods of *corrosion protection* include interior liners and "sacrificial anodes." Sacrificial anodes are special materials connected to the tank with a greater tendency to corrode than the tank material. The anode will typically protect the tank for up to 30 years. Interior liners are made of non-corrosive synthetic materials and can also be effective in protecting metal tanks. Although some paints or asphalt coatings can extend the life of underground tanks, these practices are not recommended. It is not only unsafe, but it is also illegal to reuse an underground tank above-ground without having it re-certified.

Regulations require that all new farm underground tanks (other than heating oil for on-farm use) designed to hold 1,100 gallons or more have spill, overfill and *cathodic protection*. Spill protection typically consists of a catch basin for collecting spills when the tank is filled. Overfill protection is a warning or prevention of an overfill such as an automatic shutoff or buzzer. Spill and overfill protection are important because they prevent a number of small releases over a long period of time from pollution the ground water.

Since most leaks result from piping failures, the proper design, construction and installation of underground piping is critical in preventing a leak. Double-walled piping provides the greatest amount of protection because the space between the walls can be monitored for leakage. It is also important that all of the piping and valves are protected from *corrosion*. Because of the numerous difficulties encountered in field installation of underground tanks and piping, it may be advisable to consult a professional tank installer.

Above-Ground Tanks

Above-ground tanks are those that have more than 90 percent of the tank volume, including piping, located above the soil surface. They offer several advantages over underground tanks. They are easier to maintain and monitor, leaks are easier to discover and clean, and installation and removal are often less expensive. The drawbacks to storing fuel above the ground include a higher risk for accidents and damage to the tank, increased risk of fires or explosions and increased evaporation losses. State regulations for above-ground tank installation seek to reduce the potential for both pollution and fire.

Requirements include:

- Locating the tank at least 40 feet from any building
- Supporting the tank at least 6 inches above the ground with concrete blocks
- Maintaining the storage area by keeping it free of weeds and other combustible materials.

Regulations exempt tanks less than 1,100 gallons from requiring *secondary containment*; however, farm tanks should be placed within a *secondary containment* structure to prevent pollution. These structures consist of a concrete pad with curbs, or a hard impermeable surface with diking. *Secondary containment* should hold at least 10 percent of the tank volume. Above-ground piping should be made of steel and coated to prohibit *corrosion*. All piping should be within the *secondary containment* system, if possible. *Secondary containment* systems should include a drain or sump that allows removal of water or fuel without uncontrolled drainage from the tank area. Submit plans for all proposed flammable or combustible liquid storage installation with capacities above 660 gallons to the state fire marshal for approval.

MONITORING

Regulations for new underground storage tanks with a capacity greater than 1,100 gallons require that all tanks have some method of leak detection. Leak detection refers to two different things. First, it refers to tests that can be done on your tank using specialized equipment to make sure that it is sealed tight and not leaking fuel. This process is called tank *tightness testing* and should be done every couple of years. The second method of leak detection is through inventory control practices. This is something you can do by simply keeping a close eye on the amount of fuel that is in the tank.

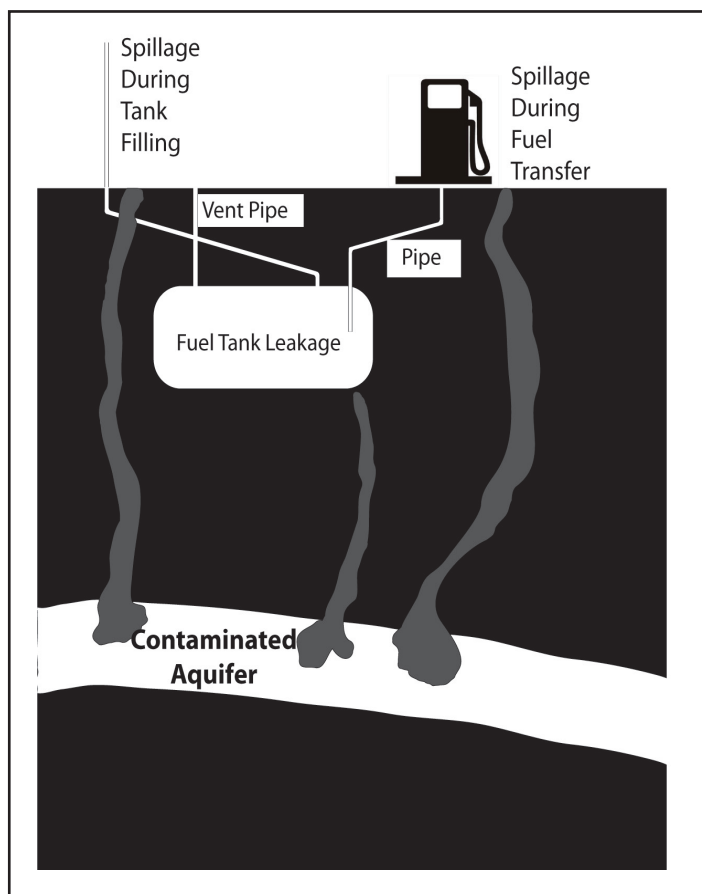
Since cleanup of a diesel or gasoline leak is always costly and often not totally effective, it is important to constantly monitor tanks containing petroleum products. If you already have a petroleum storage tank on your farm, be especially aware of the age of your tank as well as the need to establish a leak-detection program. Figure 1 shows how ground water can be contaminated by underground tanks. Since most tanks used on farms are made of bare steel, tank *corrosion* or piping problems will cause leaks sooner or later. If your tank is more than 15 year old, or if you don't know its age, make a special effort immediately to determine if leaks exist.

Tank *tightness testing* can be expensive, but well worth its cost when considering potential cleanup costs from a leaking tank. Methods to test the tightness of the tank include precision testing, *tightness testing* and volumetric analysis. Air pressure testing is generally prohibited if the tank has ever contained a product. Contact your local tank supplier for more information on someone who could perform a tank tightness test in your area.

Even when a tank has been tested and proven tight, you should have a method for regularly detecting leaks. You can install such internal or external monitoring methods as *ground water monitoring wells*, *vapor monitoring*, *automatic tank gauging* or one of many other approved methods.

Measuring tank inventories, or gauging, is an inexpensive and easy way to detect leaks. This procedure consists of taking two consecutive measurements of the tank's product level at the beginning and end of a 36-hour period using a gauging stick scaled to 1/8-inch increments. Leakage is apparent when there is any decrease in level without any withdrawal of fuel. While

Figure 1: Contamination from an underground storage tank



inventory measurement will not detect very small leaks, it will at least provide a warning that further investigation may be necessary. If you use a measuring stick to determine tank liquid level, be sure that the stick does not puncture or damage the bottom of the tank.

The closer the tank is to the farm's drinking water well, the more important it is to ensure that an adequate leak-detection system is in place. In addition to protecting your ground water and health, leak detection can save you money by preventing unnecessary fuel losses.

Leaks and Spills

If you find a leak or spill from any tank, whether above or below ground, or even a vehicle-mounted tank, state law requires that you notify the 24-hour Environmental Emergency Response hotline at 1-800-241-4113 or the Georgia Environmental Protection Division at 404-362-2687. Follow the necessary recommendations you receive when reporting the problem. You are also required to notify the state fire marshal at 404-656-2298 within 72 hours of any fires or explosions involving fuel storage tanks.

The Georgia Department of Natural Resources (DNR) administers the GUST Trust Fund, which can reimburse tank owners for a substantial percentage of costs in cleaning up a problem for federally-regulated tanks or home heating fuel tanks. For more information about the fund, call 404-362-2687. Unfortunately, residential and farm vehicle fuel tanks with less than a 1,100 gallon capacity are not federally regulated and therefore are not eligible for this assistance.

Tanks exceeding 660 gallons singly or groups of tanks with more than 1,320 gallons of total capacity that could be "reasonably expected" to reach any navigable body of surface water are subject to the EPA's Spill Prevention, Control, and Counter Measures Act (SPCC). It requires that you prepare a spill prevention plan, implement spill prevention practices, including *secondary containment*, and be liable for the damages caused as a result of any spill. If a spill does reach surface water, despite what type of tank it is from, the EPA's Clean Water Act requires that the National Response Center (NRC) be notified immediately at 1-800-424-8802.

TANK CLOSURE

Tanks no longer in use can cause problems for owners and operators many years later. They will continue to corrode, and if they still contain gas or oil, will likely contaminate ground water. State regulations require that underground tanks not used for 90 days or more must be removed and disposed of properly or capped, filled with a solid inert material such as sand or concrete, and left in place. It is important that you try to determine the location of any unused tanks on your property. Also, try to find out whether the tanks still hold a product or have holes. These tanks should be pulled from the ground and disposed of in a landfill or at a scrap dealer. Due to both the possibility of explosions and the detailed requirements of the state, it is recommended that only certified individuals pull and underground tank. A closure permit must be obtained from the DNR prior to closing an underground tank and proper procedures must be followed. Before pulling a tank, always notify your local fire department so that precautions are taken to prevent an explosion or other problem. Deaths have occurred due to improper closure.

An integral part of every underground storage tank closure is the completion of a site assessment. The site assessment documents the absence or presence of soil or water contamination through a detailed testing program. The results of these assessments are increasingly important to potential property buyers and lending institutions.

If you are concerned that your unused tank has been leaking, consult an environmental engineer or DNR investigator to determine if further investigation is warranted. If there is ground water pollution in your area, your neighbors may suspect the tank as its cause. The DNR also has regulatory authority to investigate potential pollution situations and recover costs from responsible parties.

You should document steps you take to legally close your tank, including notifying the Department of Natural Resources that the tank has been closed so that you're protected from legal action in the event of ground water problems.

MOTOR OIL

To dispose of used motor oil, which contains hazardous petroleum products, drain the oil through a funnel into a clean container that can be tightly sealed. Oil filters must be punctured and/or crushed and hot drained. Some auto service and repair stations or oil change facilities will accept used motor oil and oil filters for recycling.

Farmers are encouraged to recycle their oil as often as needed. Used oil in excess of 55 gallons is regulated as a hazardous waste. Farms that produce more than 55 gallons of used motor oil at a given time should contact a licensed oil recycler.

For a complete list of Georgia businesses that collect used motor oil or a list of Georgia companies that process and recycle used motor oil, contact the Pollution Prevention Assistance Department of Natural Resources at 800-685-2443. For information on storing large quantities of motor oil for transportation purposes, contact the General Compliance Hazardous Waste Program, Department of Natural Resources at 404-657-8831.

GLOSSARY:

Petroleum Products Storage

Automatic tank gauging: Automated processes that monitor product level and inventory control; one method of monthly tank leak detection.

Cathodic protection: One of several techniques to prevent *corrosion* of a metal surface by reversing the electric current that causes *corrosion*. A tank system can be protected by sacrificial anodes that corrode instead of the tank.

Corrosion: Deterioration of a metallic material (“rust”) due to a reaction with its environment. Damage to tanks by corrosion is caused when a metal underground tank and its underground surroundings behave like a battery. Part of the tank can become negatively charged, and another part positively charged. Moisture in the soil provides the connecting link that turns these “batteries” on. Then, the negatively charged part of the underground tank system - where the current exits from the tank or its piping - begins to deteriorate. As electric current passes through this part, the hard metal begins to turn into soft ore, holes form and leaks begin.

Galvanized: An iron or steel structure that has been coated with zinc. Galvanized materials do not meet *corrosion protection* requirements.

Groundwater monitoring wells: Monitor the ground water table near the underground storage tank for the presence of released free product in the water table. Wells should be checked frequently to see if petroleum can be detected.

Impressed current: This protection system introduces an electric current into the ground through a series of anodes that are not attached to the underground tank. Because the electric current flowing from these anodes to the tank system is greater than the corrosive current attempting to flow from it, the underground tank is protected from corrosion.

Inventory measurement: Measuring and comparing the volume of tank contents regularly with product delivery and withdrawal records to help detect leaks before major problems develop.

Manual tank gauging: Can be used as the sole method of leak detection only for tanks that are 550 gallons or less. Method involves taking two stick measurements at least 36 hours apart when the tank is not open for use. Manual tank gauging can be used in place of manual inventory in tanks ranging in size from 551 to 2,000 gallons, but this gauging should be combined with tank *tightness testing*.

Secondary containment: A system such as a sealed basin and dike or double-walled system that will catch and hold the contents of a tank or pipe if it leaks or ruptures.

Soil permeability: The quality that enables soil to transmit water or air. Slightly permeable soils have fine-textured materials like clays that permit only slow water movement. Moderately or highly permeable soils have coarse-textured materials like sand that permit rapid water movement.

Tightness testing: A procedure for testing a tank’s ability to prevent accidental release of any stored substance into the environment, or intrusion of ground water into an underground tank.

Vapor monitoring: Sampling vapors in soil gas surrounding the underground storage tank is one monthly tank leak-detection method. One requirement for using this method is using porous soils in the backfill and locating monitoring devices in these soils near the underground storage tank.

ACTION PLAN:

An action plan is a tool that allows you to take the needed steps to modify the areas of concern as identified by your assessment. The outline provided below is a basic guide for developing an action plan. Expand your plan if you feel the need to include detail or additional areas. Consult the list of references on the next page if additional assistance is needed to develop a detailed action plan.

Area of Concern	Risk Ranking	Planned Action to Address Concern	Time Frame	Estimated Cost

REFERENCES:

CONTACTS AND REFERENCES			
Organization	Responsibilities	Address	Phone Number
National Fire Prevention Associations (NFPA)	Regulations concerning storage of flammable liquids.	National Fire Prevention 1 Battery March Park Quincey, MA 02269	800-344-3555
State Fire Marshal	Registration of tanks that hold more than 1,100 gallons of combustible liquids. Information regarding plans for new tanks.	Georgia Safety Fire Commissioner 620 West Tower 2 Martin Luther King, Jr. Dr. Atlanta, GA 30334	404-656-2298
National Response Center (NRC)	Spills that could drain into waters of the United States.	Commander (OAN) Brickell Plaza, Federal Bldg, 9009 SE 1st Ave. Miami, FL 33131	1-800-424-8802 Notification required within 24 hours
U.S. Protection Agency	Spills that could drain into waters of Georgia.	Emergency Response and Removal Branch 100 Alabama Street Atlanta, GA 30354	404-562-8725
Georgia Environmental Protection Division	Underground storage tanks and removal assistance. Questions regarding the GUST Trust Fund.	Underground Storage Tank Management Program 4244 International Parkway Suite 104 Atlanta, GA 30354	404-362-2687
Biological & Agricultural Engineering Dept., University of Georgia	Questions concerning pollution prevention practices.	Driftmier Engineering Center Athens, GA 30602	706-542-9067
Pollution Prevention Assistance Division	Questions regarding used motor oil in quantities of less than 55 gallons. Listing of local collection sites.	7 Martin Luther King, Jr. Dr. Suite 450 Atlanta, GA 30334	404-651-5120 or 800-685-2443
Georgia Environmental Protection Division	Questions regarding used motor oil in quantities greater than 55 gallons.	Generator Compliance Program Hazardous Waste Floyd Tower East 205 Butler Street, SE, Atlanta, GA 30334	404-656-3851
Georgia Tank and Equipment Contractors Association (GTEC)	Voluntary Tank Certification Program	University System of Georgia	770-426-1133

PUBLICATIONS:

Environmental Protection Agency (EPA) Information Center 401 M Street SW, Washington, D.C. 20460

- The Interim Prohibition: Environmental Protection Agency (EPA) Guidance for Design and Installation of Underground Storage Tanks. EPA/530-SW-85-023
(Longer document, contains technical information)
- Musts for Underground Storage Tanks (USTs);
A Summary of New Regulations for UST Systems
- Dollars and Sense: A Summary of Financial Responsibility for UST Systems

Georgia Department of Natural Resources 205 Butler Street, SE Floyd Towers East, Atlanta, Georgia 30334

- So You Want to Close an Underground Storage Tank (UST)?

University of Georgia Cooperative Extension Athens, Georgia 30602

- Regulations for On-Farm Storage Tanks in Georgia, Bulletin No. 1136

American Petroleum Institute (API) 1220 L Street, Washington, D.C. 20005

- API 1615 Standards (American Petroleum Institute).

NOTES:

*The Georgia Farm Assessment System is a cooperative project
of the Pollution Prevention Assistance Division, Georgia Department of Natural Resources,
the University of Georgia, College of Agricultural and Environmental Sciences, Cooperative Extension,
the State Soil and Water Conservation Commission and the
USDA, Natural Resources Conservation Service.*



This bulletin is a revision of “Petroleum Storage & Handling” developed by Dr. Mark Risse.

The Pollution Prevention Assistance Division (P²AD) and all technical sources referenced in this assessment make no warranty or representation, expressed or implied, with respect to the information contained in this assessment. The use of any information, apparatus, method or process mentioned in this assessment may not infringe upon privately owned rights. P²AD assumes no liability with respect to use of, or damages resulting from, use of any information, apparatus, method or process disclosed in this assessment. Mention of trade names of commercial products does not constitute endorsement or recommendation for use.

Learning *for* **Life**

Bulletin 1152-7

Revised January 2009

The University of Georgia and Ft. Valley State University, the U.S. Department of Agriculture and counties of the state cooperating. Cooperative Extension, the University of Georgia College of Agricultural and Environmental Sciences, offers educational programs, assistance and materials to all people without regard to race, color, national origin, age, gender or disability.

**An Equal Opportunity Employer/Affirmative Action Organization
Committed to a Diverse Work Force**