

Grant Guidelines To States
For Implementing The
Secondary Containment Provision
Of The Energy Policy Act Of 2005

U.S. Environmental Protection Agency
Office of Underground Storage Tanks
Washington, DC
www.epa.gov/oust
EPA 510-R-06-001

November 2006

Contents

Overview Of The Secondary Containment Grant Guidelines	1
Why Is EPA Issuing These Guidelines?	1
What Is In These Guidelines?.....	2
When Do These Guidelines Take Effect?.....	2
Requirements For Secondary Containment	3
What Underground Tanks, Piping, And Motor Fuel Dispenser Systems Do These Guidelines Apply To?	3
What Definitions Are Used In These Guidelines?.....	3
How Does A State Implement These Guidelines?.....	5
What Are The Minimum Secondary Containment Requirements?	6
When Is Secondary Containment Required?	6
When Is Under-Dispenser Containment Required?.....	8
Where Must The 1,000 Feet Be Measured From?	8
How May States Determine When An Underground Tank, Piping, Or Motor Fuel Dispenser System Is Not Within 1,000 Feet Of An Existing Community Water System Or Existing Potable Drinking Water Well?	8
How Will States Know That Secondary Containment And Under-Dispenser Containment Are Installed Where Required?	9
What Enforcement Authority Must States Have For Secondary Containment?	9
How Will States Demonstrate Compliance With These Guidelines?	9
How Will EPA Enforce States' Compliance With The Requirements In These Guidelines?.....	10
For More Information About The Secondary Containment Grant Guidelines.....	11
Background About The Energy Policy Act Of 2005	11

Overview Of The Secondary Containment Grant Guidelines

Why Is EPA Issuing These Guidelines?

The U.S. Environmental Protection Agency (EPA), in consultation with states, developed these grant guidelines to implement the secondary containment provision in Section 9003(i)(1) of the Solid Waste Disposal Act (SWDA), enacted by the Underground Storage Tank Compliance Act, part of the Energy Policy Act of 2005 signed by President Bush on August 8, 2005.

Section 1530 of the Energy Policy Act amends Section 9003 in Subtitle I of the Solid Waste Disposal Act by adding requirements for additional measures to protect groundwater from contamination. State underground storage tank (UST) programs that receive funding under Subtitle I must meet, at a minimum, *one* of the following:

1. *Tank And Piping Secondary Containment* – Each new or replaced underground tank, or piping connected to any such new or replaced tank, that is within 1,000 feet of any existing community water system or any existing potable drinking water well must be secondarily contained and monitored for leaks. In the case of a replacement of an existing underground tank or existing piping connected to the underground tank, the secondary containment and monitoring shall apply only to the specific underground tank or piping being replaced, not to other underground tanks and connected pipes comprising such system. In addition, each new motor fuel dispenser system installed within 1,000 feet of any existing community water system or any existing potable drinking water well must have under-dispenser containment. These requirements do not apply to repairs meant to restore an underground tank, pipe, or dispenser to operating condition.

Or,

2. *Evidence Of Financial Responsibility And Certification* – A person that manufactures an underground tank or piping for an underground storage tank system or installs an underground storage tank system must maintain evidence of financial responsibility under Section 9003(d) of Subtitle I in order to provide for the costs of corrective actions directly related to releases caused by improper manufacture or installation unless the person can demonstrate themselves to be already covered as an owner or operator of an underground storage tank under Section 9003 of Subtitle I. In addition, underground storage tank installers must: be certified or licensed; have the installation certified or approved; install the underground storage tank system compliant with a code of practice and in accordance with the manufacturer's instructions; or use another method determined to be no less protective of human health and the environment.

EPA's Office of Underground Storage Tanks (OUST) is issuing these grant guidelines to establish the minimum requirements a state receiving Subtitle I funding (hereafter referred to as "state") must meet in order to comply with the secondary containment requirements in the Energy Policy Act.

What Is In These Guidelines?

These guidelines describe the minimum requirements for secondary containment that a state's underground storage tank program must contain in order for a state to comply with statutory requirements for Subtitle I funding. These guidelines include definitions, requirements, and examples for states choosing to implement the secondary containment provision.

When Do These Guidelines Take Effect?

States receiving Subtitle I funding must implement *either* the secondary containment requirements described in these guidelines *or* the financial responsibility and installer certification requirements (described in separate guidelines) by February 8, 2007.

Requirements For Secondary Containment

What Underground Tanks, Piping, And Motor Fuel Dispenser Systems Do These Guidelines Apply To?

These guidelines apply to new or replaced underground tanks and piping regulated under Subtitle I except those excluded by regulation at 40 CFR 280.10(b) and those deferred by regulation at 40 CFR 280.10(c). New or replaced underground tanks and piping used for emergency power generation [deferred from release detection by 280.10(d)] must meet these guidelines. These guidelines also apply to new motor fuel dispenser systems connected to underground storage tank systems covered by these guidelines.

What Definitions Are Used In These Guidelines?

The following are definitions for purposes of these guidelines.

Community Water System (CWS) – A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

This definition is taken from the federal drinking water regulations at 40 CFR 141.2 (7-1-02 Edition).

Existing – For purposes of these guidelines, existing means that an underground tank, piping, motor fuel dispensing system, facility, community water system, or potable drinking water well is in place when a new installation or replacement of an underground tank, piping, or motor fuel dispensing system begins.

Installation Of A New Motor Fuel Dispenser System – The installation of a new motor fuel dispenser and the equipment necessary to connect the dispenser to the underground storage tank system. It does not mean the installation of a motor fuel dispenser installed separately from the equipment needed to connect the dispenser to the underground storage tank system. For purposes of these guidelines, the equipment necessary to connect the motor fuel dispenser to the underground storage tank system may include check valves, shear valves, unburied risers or flexible connectors, or other transitional components that are beneath the dispenser and connect the dispenser to the underground piping.

Motor Fuel – Petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol and is typically used in the operation of a motor engine.¹

¹ This definition applies to blended petroleum motor fuels such as biodiesel and ethanol blends that contain more than a *de minimis* amount of petroleum or petroleum-based substance.

Piping – For purposes of these guidelines, piping is the hollow cylinder or the tubular conduit constructed of non-earthen materials that routinely contains and conveys regulated substances from the underground tank(s) to the dispenser(s) or other end-use equipment. Such piping includes any elbows, couplings, unions, valves, or other in-line fixtures that contain and convey regulated substances from the underground tank(s) to the dispenser(s). This definition does not include vent, vapor recovery, or fill lines.

Potable Drinking Water Well – Any hole (dug, driven, drilled, or bored) that extends into the earth until it meets groundwater which:

- supplies water for a non-community public water system, or
- otherwise supplies water for household use (consisting of drinking, bathing, and cooking, or other similar uses).

Such wells may provide water to entities such as a single-family residence, group of residences, businesses, schools, parks, campgrounds, and other permanent or seasonal communities.

Public Water System (PWS) – A system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes: any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and, any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Such term does not include any “special irrigation district.” A public water system is either a “community water system” or a “non-community water system.”

This definition is taken from the federal drinking water regulations at 40 CFR 141.2 (7-1-02 Edition).

Replace – This term applies to underground tanks and piping.

Underground tank– Replace means to remove an existing underground tank and install a new underground tank.²

Piping – Replace means to remove and put back in an amount of piping connected to a single underground tank defined by the state to be a replacement. States may determine the amount of piping connected to a single underground tank that triggers replacement by piping length, percent of piping replaced, percent of piping replacement cost, or some combination of these. At a minimum, states must consider a piping replacement to have occurred when 100 percent of the piping, excluding connectors (such as flexible connectors), connected to a single underground tank is removed and put back in. States are encouraged to consider variations in underground storage tank system layout,

² A new underground tank is a tank that meets the new tank standards in 40 CFR 280.20, whether or not the tank was ever used before.

such as those having extensive piping runs, when determining piping replacement criteria.

Secondary Containment – A release prevention and release detection system for an underground tank and/or piping. The release prevention part of secondary containment is an underground tank and/or piping having an inner and outer barrier. Between these two barriers is a space for monitoring. The release detection part of secondary containment is a method of monitoring the space between the inner and outer barriers for a leak or release of regulated substances from the underground tank and/or piping (called interstitial monitoring). Interstitial monitoring must meet the release detection requirements in 40 CFR 280.43(g).

Under-Dispenser Containment (UDC) – Containment underneath a dispenser that will prevent leaks from the dispenser from reaching soil or groundwater. Such containment must:

- Be liquid-tight on its sides, bottom, and at any penetrations;
- Be compatible with the substance conveyed by the piping; and
- Allow for visual inspection and access to the components in the containment system and/or be monitored.

Underground Storage Tank (UST) – This term has the same meaning given to it in Section 9001 of Subtitle I, except that such term does not include tank combinations or more than a single underground pipe connected to a tank.

Underground Tank – This term has the same meaning as underground storage tank except that such term does not include underground piping.

How Does A State Implement These Guidelines?

A state implements these guidelines by:

- Requiring secondary containment and interstitial monitoring for all new or replaced underground tanks and piping unless a state determines³ that the new or replaced underground tank and piping are not within 1,000 feet of any existing community water system or any existing potable drinking water well; and
- Requiring under-dispenser containment for all new motor fuel dispenser systems unless a state determines that the new motor fuel dispenser system is not within 1,000 feet of any existing community water system or any existing potable drinking water well.

The state must meet these requirements by February 8, 2007.

³ See the section titled *How May States Determine When An Underground Tank, Piping, Or Motor Fuel Dispenser System Is Not Within 1,000 Feet Of An Existing Community Water System Or Existing Potable Drinking Water Well?* on page 8 of these guidelines for further information.

A state may choose to develop more stringent requirements than described in these guidelines. For example, a state may choose to require secondary containment for all new installations and replacements, independent of whether the installation is within 1,000 feet of any existing community water system or any existing potable drinking water well. Likewise, a state may choose to develop more stringent definitions.

What Are The Minimum Secondary Containment Requirements?

Consistent with current EPA regulations for hazardous substance tanks and piping [see 40 CFR 280.42(b)(1)], these guidelines require that, at a minimum, secondary containment systems be designed, constructed, and installed to:

- Contain regulated substances released from the tank system until they are detected and removed,
- Prevent the release of regulated substances to the environment at any time during the operational life of the underground storage tank system, and
- Be checked for evidence of a release at least every 30 days.

In addition, interstitial monitoring must meet the requirements of 40 CFR 280.43(g).

Section 1530 of the Energy Policy Act does not include under-dispenser containment as part of the secondary containment requirements for new or replaced underground tanks and piping. Instead, under-dispenser containment is required when installing a new motor fuel dispenser system. However, in cases where secondary containment of piping is required, under-dispenser containment may be necessary for secondary containment of the piping near the dispenser. Likewise, containment above the underground tank may be necessary for secondary containment of the piping near the underground tank.

When Is Secondary Containment Required?

Secondary containment, including interstitial monitoring, is required for all new or replaced underground tanks and piping unless a state determines that the installation is not within 1,000 feet of any existing community water system or any existing potable drinking water well. If an existing underground tank is replaced, the secondary containment and interstitial monitoring requirements apply only to the replaced underground tank. Likewise, if existing piping is replaced, the secondary containment and interstitial monitoring requirements apply only to the replaced piping. States are not required to apply the requirements in these guidelines to repairs meant to restore an underground tank, piping, or dispenser to operating condition. Solely for purposes of determining when secondary containment is required by these guidelines, a repair is any activity that does not meet the definition of replace.

Manifolded Underground Tanks: States are not required to apply the secondary containment requirements to underground tanks that are not new or replaced in a manifolded underground tank system.

Multiple Piping Runs Connected To A Single Underground Tank: For underground tanks with multiple piping runs, states are not required to apply the secondary containment requirements to those piping runs that are not new or replaced.

Suction Piping And Manifold Piping: States are not required to apply the secondary containment requirements to suction piping that meets the requirements at 40 CFR 280.41(b)(2)(i) – (v) or to piping that manifolds two or more underground tanks together.

New Dispensers And Connected Piping At An Existing Underground Storage Tank Facility: If a new motor fuel dispenser system is installed at an existing underground storage tank facility and new piping is added to the underground storage tank system to connect the new dispenser to the existing system, then the new dispenser must have under-dispenser containment and the new piping must meet the requirements described in these guidelines. States are not required to apply the requirements in these guidelines to the existing piping to which the new piping is connected.

New Underground Storage Tank Facilities: If a new underground storage tank facility will be installed that is not within 1,000 feet of any existing community water system or any existing potable drinking water well and the owner will install a potable drinking water well at the new facility that is within 1,000 feet of the underground tanks, piping, or motor fuel dispenser systems as part of the new underground storage tank facility installation, then secondary containment and under-dispenser containment are required, regardless of whether the well is installed before or after the underground tanks, piping, and motor fuel dispenser systems are installed.

Although not required by these guidelines, states may want to consider the following when developing secondary containment and under-dispenser containment requirements for new and replaced underground tanks and piping and new motor fuel dispenser systems:

- Designated source water protection areas,
- Water sources such as natural springs and surface waters, and
- Planned locations for new community water systems and new potable drinking water wells.

EPA encourages state underground storage tank programs to work with state agencies responsible for drinking water programs and state well permitting authorities to protect source water and other sensitive areas.

When Is Under-Dispenser Containment Required?

All new motor fuel dispenser systems must have under-dispenser containment unless a state determines that the new dispenser is not located within 1,000 feet of any existing community water system or any existing potable drinking water well. A motor fuel dispenser system is considered new when:

- A dispenser is installed at a location where there previously was no dispenser (new underground storage tank system or new dispenser location at an existing underground storage tank system), or
- An existing dispenser is removed and replaced with another dispenser and the equipment used to connect the dispenser to the underground storage tank system is replaced. This equipment may include unburied flexible connectors or risers or other transitional components that are beneath the dispenser and connect the dispenser to the piping.

Where Must The 1,000 Feet Be Measured From?

To determine if a new or replaced underground tank or piping or new motor fuel dispenser system is within 1,000 feet of any existing community water system or any existing potable drinking water well, at a minimum the distance must be measured from the closest part of the new or replaced underground tank or piping or new motor fuel dispenser system to:

- The closest part of the nearest existing community water system, including such components as:
 - The location of the wellhead(s) for groundwater and/or the location of the intake point(s) for surface water;
 - Water lines, processing tanks, and water storage tanks; and
 - Water distribution/service lines under the control of the community water system operator.
- The wellhead of the nearest existing potable drinking water well.

How May States Determine When An Underground Tank, Piping, Or Motor Fuel Dispenser System Is Not Within 1,000 Feet Of An Existing Community Water System Or Existing Potable Drinking Water Well?

States must have a system in place for determining when new or replaced underground tanks or piping or new motor fuel dispenser systems are not within 1,000 feet of any existing community water system or any existing potable drinking water well. There are various options states may use for making this determination. The following are some examples for meeting this requirement.

- States may determine, or establish criteria for determining, when new or replaced underground tanks or piping or new motor fuel dispenser systems are not within 1,000 feet.
- States may designate another entity to determine whether new or replaced underground tanks or piping or new motor fuel dispenser systems are not within 1,000 feet.
- States may require that owners or operators demonstrate to the satisfaction of the state that their new or replaced underground tanks or piping or new motor fuel dispenser systems are not within 1,000 feet.

How Will States Know That Secondary Containment And Under-Dispenser Containment Are Installed Where Required?

States must have a system in place so they will know that secondary containment and under-dispenser containment are installed where required by these guidelines. Such a system could be registration, notification, record keeping, or another mechanism developed by the state.

What Enforcement Authority Must States Have For Secondary Containment?

At a minimum, states must have comparable enforcement authorities for their secondary containment requirements as they have for current underground storage tank requirements.

How Will States Demonstrate Compliance With These Guidelines?

After February 8, 2007, the effective date of the secondary containment requirements, and before receiving future grant funding, states must provide one of the following to the appropriate EPA Regional office:

- For a state that has met the requirements for secondary containment, the state must submit a certification indicating that the state meets the requirements in the guidelines.
- For a state that has not yet met the requirements for secondary containment, the state must provide a document that describes the state's efforts to meet the requirements. This document must include:
 - A description of the state's activities to date to meet the requirements in the guidelines;
 - A description of the state's planned activities to meet the requirements; and
 - The date by which the state expects to meet the requirements.

EPA may verify state certifications of compliance through site visits, record reviews, or audits as authorized by 40 CFR Part 31.

How Will EPA Enforce States' Compliance With The Requirements In These Guidelines?

As a matter of law, each state that receives funding under Subtitle I, which would include a Leaking Underground Storage Tank (LUST) Cooperative Agreement, must comply with certain underground storage tank requirements of Subtitle I. EPA anticipates State and Tribal Assistance Grants (STAG) funds will be available under the 2007 Appropriations Act for certain purposes authorized by the Energy Policy Act, and EPA will condition STAG grants with compliance with these guidelines. Absent a compelling reason to the contrary, EPA expects to address noncompliance with these STAG grant conditions by utilizing EPA's grant enforcement authorities under 40 CFR Part 31.43, as necessary and appropriate.

For More Information About The Secondary Containment Grant Guidelines

Visit the EPA Office of Underground Storage Tanks web site at www.epa.gov/oust or call 703-603-9900.

Background About The Energy Policy Act Of 2005

On August 8, 2005, President Bush signed the Energy Policy Act of 2005. Title XV, Subtitle B of this act (entitled the Underground Storage Tank Compliance Act) contains amendments to Subtitle I of the Solid Waste Disposal Act – the original legislation that created the underground storage tank (UST) program. These amendments significantly affect federal and state underground storage tank programs, will require major changes to the programs, and are aimed at reducing underground storage tank releases to our environment.

The amendments focus on preventing releases. Among other things, they expand eligible uses of the Leaking Underground Storage Tank (LUST) Trust Fund and include provisions regarding inspections, operator training, delivery prohibition, secondary containment and financial responsibility, and cleanup of releases that contain oxygenated fuel additives.

Some of these provisions require implementation by August 2006; others will require implementation in subsequent years. To implement the new law, EPA and states will work closely with tribes, other federal agencies, tank owners and operators, and other stakeholders to bring about the mandated changes affecting underground storage tank facilities.

To see the full text of this new legislation and for more information about EPA's work to implement the underground storage tank provisions of the law, see: http://www.epa.gov/oust/fedlaws/nrg05_01.htm