

# UTAH TANK NEWS

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## INSIDE:

Even if the World Ends in 2012 .....Page 1

UST Rules Update .....Page 2  
Spill Buckets – How Clean is Clean?.....Page 2

Ethanol in Your Fuel? .....Page 3

Certification & Online Payments.....Page 4

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## Even If The World Ends in 2012... YOU still need be certified as an A/B operator!!!

by Gary Harris

To meet the Operator Training requirement of the Energy Policy Act of 2005, each UST facility shall, by **January 1, 2012**, have UST facility operators that are trained and registered with DERR/UST. Each facility shall have three classes of operators: A, B, and C. As of November 2011 our records indicate that only **45%** of the facilities in Utah have certified ABC operators.



### Requirements in a nutshell, owner/operators must:

1. take an approved operator training course
2. take the AB operator test
3. fill out an application
4. pay a certification fee of \$50
5. show proof of citizenship (notarized).

### Which tank facilities must have a trained ABC operator?

All facilities that have a regulated underground storage tank, to include:

1. Operating fueling facilities
2. Emergency generator tanks, regardless of location
3. Tanks that are temporarily closed
4. Unmanned sites.

If a UST Facility does not have certified ABC operators by January 1, 2012, that facility will be out of compliance with EPA and Utah regulations and subject to enforcement action.

Approved Operator Training Courses can be found at <http://www.undergroundtanks.utah.gov/abcourses.htm>

For questions call 801-536-4100 and ask to speak with one of the UST Scientists, or contact Michelle Horning at [mhorning@utah.gov](mailto:mhorning@utah.gov)

## UST Rules Update by Gary Astin

The Division of Environmental Response and Remediation (DERR) is proposing a change to the Utah underground storage tank (UST) rules to modify the requirements for third-party individuals who act as Class B operators. Beginning January 1, 2012 all facilities that have underground storage tanks will be required to have Class A, B, and C operators trained and registered. Some facility owners and operators plan to contract with third parties to carry out the required functions of the Class B Operator. The current rules require that individuals who contract to act as third-party Class B operators for an UST owner must also be certified UST inspectors. The proposed changes will remove the inspector certification requirement and will allow individuals to be eligible to become third party Class B Operators if they: 1) are certified as a general UST installer or installer technician, or 2) complete the UST inspector training and document acceptable financial responsibility. Individuals who meet requirement 1 or 2 must also take the Class B operator training course, pass the exam, and register with the DERR as a Class B operator. The DERR is accepting comments on the proposed rules until January 3, 2012. Information on the proposed changes can be found on the DERR UST web site at [http://www.undergroundtanks.utah.gov/r311\\_3rdpartyb\\_comment.htm](http://www.undergroundtanks.utah.gov/r311_3rdpartyb_comment.htm).

Other changes to the UST rules have been made during 2011. These changes provide for payments from the Petroleum Storage Tank Fund for consultants hired by third parties who have been affected by a release; and modify the rules for the PST loan fund, sampling and lab analysis requirements, registration fees for tanks that are significantly out of compliance, PST Fund claims, and cathodic protection testing. A complete copy of the current UST rules can be found on the DERR web site at [http://www.undergroundtanks.utah.gov/docs/r311\\_final\\_110111.pdf](http://www.undergroundtanks.utah.gov/docs/r311_final_110111.pdf). If you have questions on the proposed changes, or would like to receive a paper copy of the rules, please contact Gary Astin at (801) 536-4103 or [gastin@utah.gov](mailto:gastin@utah.gov).

## Spill Buckets – How Clean is Clean? by Bruce Hagans

**Ah, those spill buckets** - You know the bucket around the fill pipe. The new UST Operator monthly inspection check list, requires that spill buckets must be free from debris, water and product, and not have any cracks, holes or deformation. So what if they are not clean or they have product or water in them? What's the big deal?

**Debris, Water and Product** - The purpose of a spill bucket is to prevent fuel from reaching the environment during and following a delivery so it must have capacity to hold spilled or residual product. Any water or product that is caught in the bucket should be removed promptly. The presence of water or product prior to a delivery will reduce the bucket's ability to contain a spill. In addition, if you have a drain in your bucket, there is a potential way for water to get into your tank (see article on page 3, "Ethanol in Your Fuel?"). Product left in non-metallic spill buckets or sumps can warp the bucket or sump and create gaps around the fill pipe or entry boots where fuel can escape. Another consideration is for a spill bucket that always has liquid in it at the same level. This scenario suggests the bucket may be losing product or water at a crack or tear in the bucket, at that constant liquid level.

**Dirty Buckets** - If the buckets are dry but dirty, that should not prevent the bucket from holding product, right? A crack, hole or deformity may reduce or eliminate the buckets ability to retain product from a spill. A dirty spill bucket can hide cracks, holes and deformation in the bucket. So if a dirty spill bucket never has product or water in it, the liquid may just be leaking out. If all product that ends up in a spill bucket following deliveries simply leaks out of an obscured crack, you will end up with a significant effort to investigate the extent of the contamination- think drilling holes in the ground, site investigation and potential loss of business during a cleanup!



**How clean is clean?** One question that we hear often is "How clean is clean for a spill bucket?" The answer to that question really boils down to the requirement that a spill bucket always be able to contain a spill and you must be able to determine the presence of "cracks, holes and deformation" at your monthly inspection. We recommend that you always keep your buckets free from product and water (remove following each delivery or significant rain or snowstorm) and keep the bottom and side walls of the bucket wiped down at your monthly inspection. Feel free to contact a member of the UST Compliance section if you have questions about your spill buckets or sumps. In addition, the EPA has produced the following reference for spill buckets and sumps: <http://www.epa.gov/OUST/pubs/sumps%20manual%204-28-05.pdf>

Bruce Hagans is currently a DERR UST project manager and has 12 years experience remediating petroleum releases from fueling facilities.

# Ethanol in Your Fuel?

by William Moore

Congress has mandated refineries sell a greater amount of ethanol in their fuels as part of the 2005 Energy Policy Act. Petroleum refiners have been phasing in the addition of ethanol beginning with the highest population states and states with the highest ethanol production. This phase in has taken place over several years and last year Utah refiners began adding ethanol to our local fuel supply. Eventually gasoline in every market within the United States will contain some ethanol.

As a petroleum marketer you need to know some important facts about gasoline that contains ethanol. Ethanol mixes well with petroleum – **as long as no water exists in the system**. Any water entering your UST will strip the ethanol (which is a high octane component of your fuel) from the petroleum, and deposit it in a water/ethanol mixture on the bottom of your tank. This process is called “phase separation”. With each load of fuel the percent ethanol in the water phase at the bottom of your tanks will increase, and any water that enters your tank will allow more ethanol to strip out.

As a result of this phase separation, you run the risk of either selling lower octane fuel that will cause engine performance to decrease or selling ethanol and water mixture that will cause engine failure - either way you end up with unhappy customers. In addition, if your fuel is found to be off spec by Weights and Measures, you may be required to dispose of the entire tank of product and bring in fresh product. Also, they do not allow you to dump additives (splash blending) into your USTs to restore the octane.

In addition to the potential damage to vehicles, phase separated fuel will cause corrosion of the interior of unlined steel underground tanks. Before ethanol, that initial layer of rust called a patina (ferric hydroxide and carbon from the steel) would actually help protect the underlying steel. In the presence of ethanol, this protective patina can be stripped away and leaves fresh steel which will corrode with the introduction of water. External cathodic protection and tank coatings do not protect tanks from internal corrosion.

The three most common ways water enters into your USTs are: 1) by the drain valves on your spill buckets, 2) allowing spill buckets to accumulate water above the top of the drop tube, and 3) seepage or ground water entering through loose top bungs or risers. All of these sources of water can be easily prevented with good housekeeping practices.



If you think you're safe because you have Fiberglass Reinforced Plastic (FRP) tanks - that may not be true. Prior to the 1990 standard, FRP tanks were only designed to be exposed to up to 10% ethanol. Post 1990, most were designed to be compatible with 100% ethanol. We have received anecdotal information that some southern states have observed that in the presence of higher percentage ethanol fuels the resins in some FRP tanks dissolve leaving only the fiberglass netting resulting in major cleanups. The information is preliminary and we don't yet know the cause of these failures, but you can decrease the chance for problems by knowing the manufacture date of your tank.

As we discover new information about the emerging challenges of ethanol containing fuels, we will continue to provide updates. We do know that refiners will not be able to meet the Federal ethanol requirement with only 10% added to fuel. We are likely to see that concentration increase to 15% or higher. This increase may not happen for some time yet, but even with 10% we are seeing problems. The prevention of water ingress and good housekeeping may avert a financial disaster for you.

