All That Hydrotest Water

How To Get Rid of It

Robert J May PE

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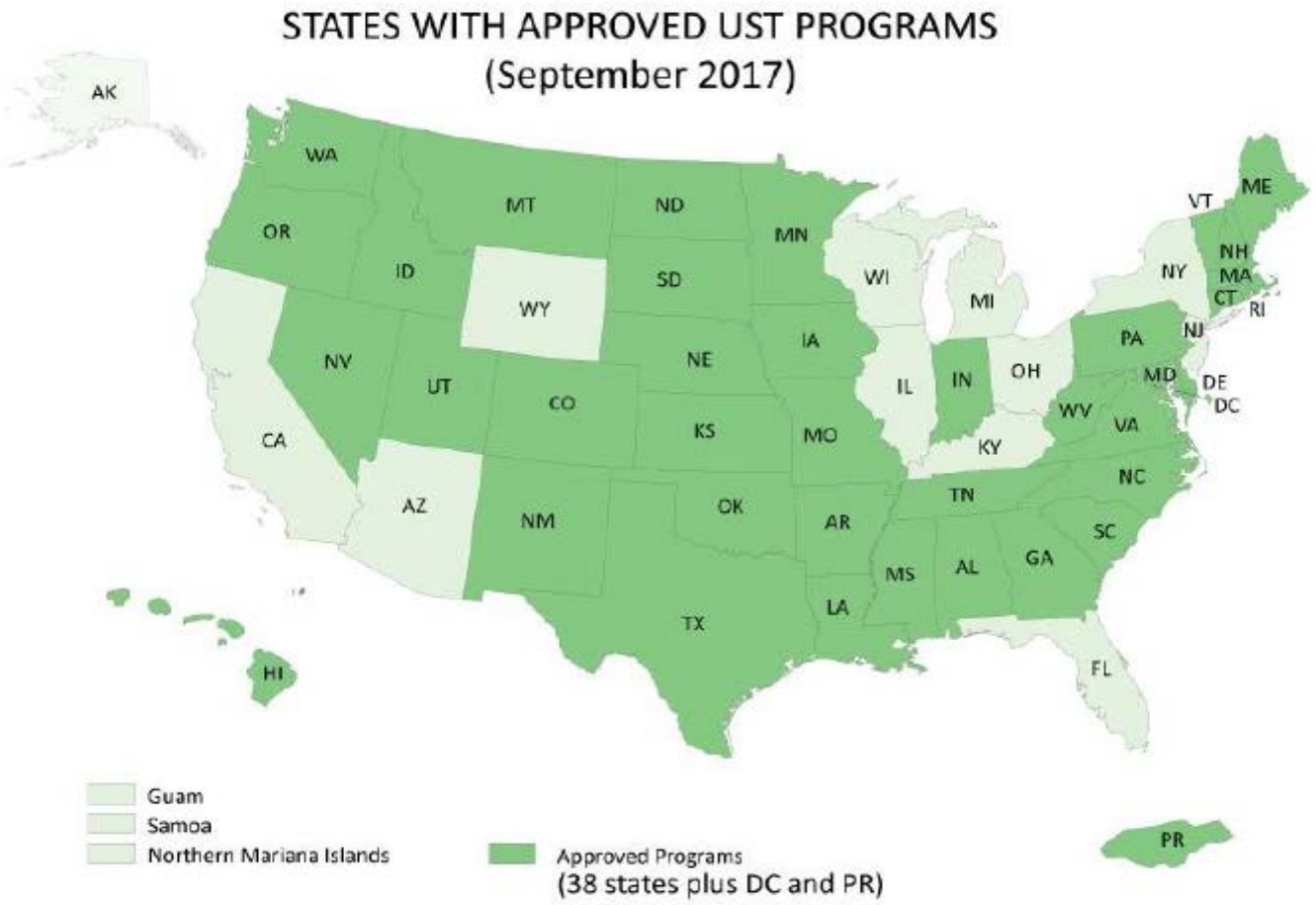
UST Regulation Changes

- The 2015 UST regulation changed certain portions of the 1988 underground storage tank technical regulation in 40 CFR part 280. The changes established federal requirements that are similar to key portions of the Energy Policy Act of 2005. In addition, EPA added new operation and maintenance requirements and addressed UST systems deferred in the 1988 UST regulation. The changes:
- Added secondary containment requirements for new and replaced tanks and piping
- Added operator training requirements
- Added periodic operation and maintenance requirements for UST systems
- Added requirements to ensure UST system compatibility before storing certain biofuel blends
- Removed past deferrals for emergency generator tanks, field constructed tanks, and airport hydrant systems
- Updated codes of practice

Ohio Does Not Have State Program Approval (SPA)



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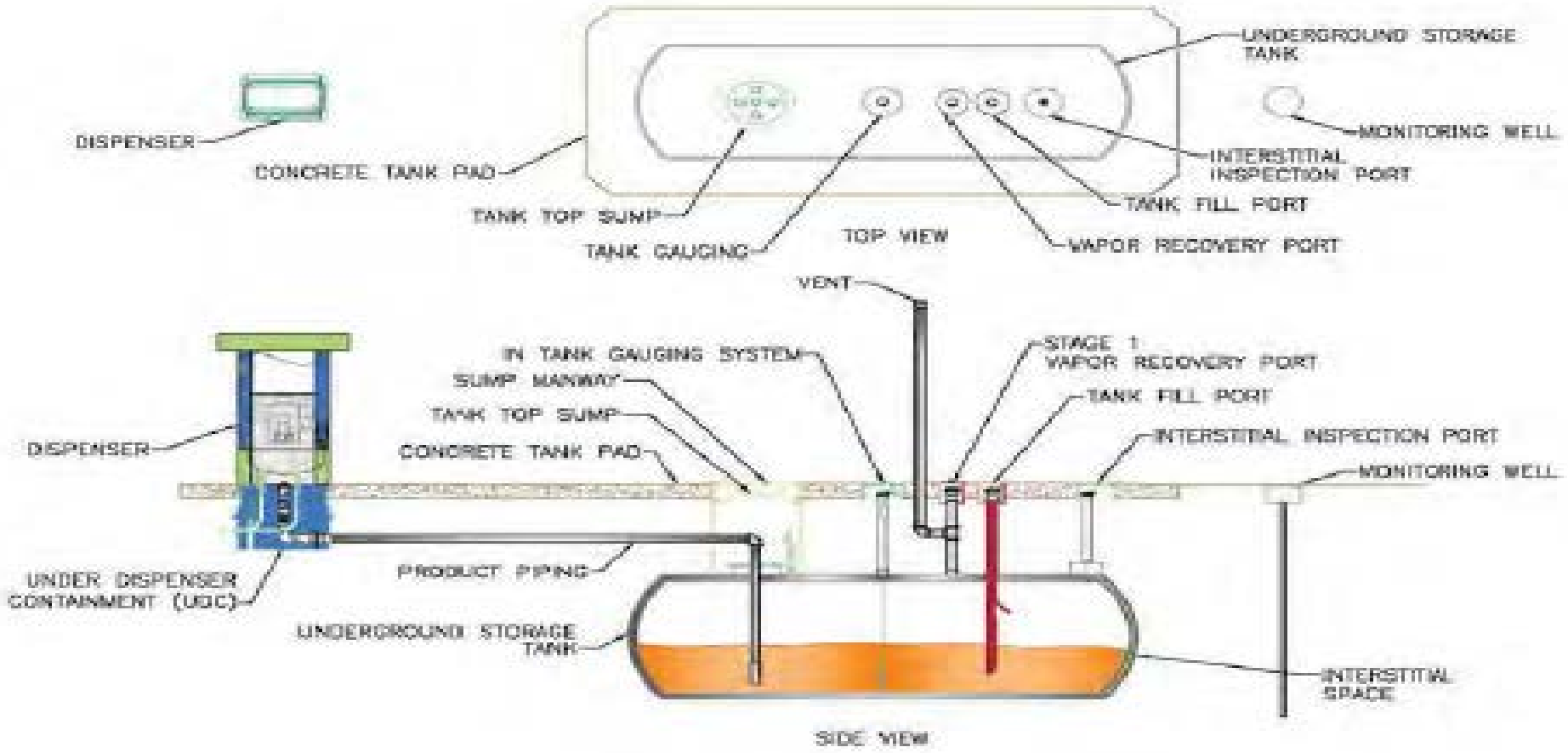
Ohio USTs

- USTs regulated by State Fire Marshall
  - Ohio has no approved state program approval (SPA)
- Waste and releases to the environment regulated by Ohio EPA
- Ohio State Fire Marshall- BUSTR (Bureau of Underground Storage Tank Regulations) published new guidance for compliance for the new UST regulations effective in 2018 in December 2017

What Does All This Mean?

- New USEPA regulations and deadlines are now the operating regulations for USTs in Ohio
- New periodic operation and maintenance items have a deadline of October 13, 2018
  - Bureau of Underground Storage Tank Regulations (BUSTR)
  - Monthly walk around inspection (BUSTR form)
  - Spill prevention equipment for tank filling, commonly called spill buckets, must be tested (BUSTR form)
  - Certain UST systems with double wall USTs must test tank top containment (tank top sumps) (BUSTR form)

Spill Buckets and Tank Top Containment



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Spill Buckets

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Spill Bucket Testing continued

- Qualified person doing the testing
- Two methods (industry standards)
  - Vacuum test (special equipment)
  - Hydrotest
    - Fill spill bucket to within 1.5 inches from the top with water
    - Wait 60 minutes and water level must not drop 1/8 inch
      - Alternate test is to mark water level with Sharpie Pen and measure at end of 1 hour –within 1/16 inch of line
- New test equipment now available to “dry” test containment equipment

Spill Bucket Testing

Checklist For Spill Protection Equipment

Description	Spill buckets are basins installed at the fill pipe to temporarily contain product spills that may occur during fuel delivery. Spill buckets may be single-walled or double-walled.
Perform These O&M Actions	☐ To demonstrate compliance with spill prevention, before each delivery, conduct the following: • Visually check for any damage to the spill bucket. • Remove any liquid or debris from the spill bucket. • Check for and remove any obstructions, such as tank gauging sticks, in the fill pipe. • Make sure your fill cap is securely fastened. • If you have a double-walled spill bucket with interstitial monitoring, check your interstitial monitoring device for a leak into the interstitial area. ☐ No later than October 13, 2018, you must complete a walkthrough inspection form and document compliance with spill prevention requirements at least every month. See **page 30** and **Appendix I** for more information about these required walkthrough inspections. ☐ Note that if you receive deliveries less frequently than every 30 days, you may check your spill bucket before and after each delivery. ☐ No later than October 13, 2018, you must conduct the first 3-year test of your spill bucket. This test should be conducted by a person qualified to conduct spill bucket testing. If you use a double-walled spill bucket and check the interstitial space of your spill bucket for leaks during the walkthrough inspection, then this testing is not required. See **page 47 in Appendix I** for additional information and sample form. ☐ If you see signs of a spill, see **page 32** for information on how to report the release and the steps that need to be taken. ☐ A permit is not required to perform routine checks or replace of spill prevention equipment; however, a permit may be required if work is performed at the point where a riser pipe connects to a bung at the tank top.
Keep These O&M Records	**1-year:** ☐ Documentation of monthly and annual walkthrough inspections. **3-years:** ☐ Documentation of three-year tightness test of spill buckets. ☐ Documentation of annual calibration of interstitial sensors, if applicable. **5-years:** ☐ Documentation of performance claims by the manufacturer or contractor. Schedules of required calibration and maintenance. **Other:** ☐ Documentation demonstrating compatibility for as long as the UST system is used to store the regulated substance.

Fig. 13 - Vacuum tightness test on a spill bucket

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Tank Top Containment

(Tank Top Sumps)

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Tank Top Containment (TTC) Inspected and Tested Only if System Installed after 03-01-05

- All containment sumps installed on new UST systems after March 1, 2005.
- All containment sumps associated with UST systems containing hazardous substances pursuant to Rule 1301:7-9-03 of the Administrative Code.
- All containment sumps installed on existing UST systems as a result of retrofit activities required by Rules 1301:7-9-06 or 07 of the Administrative Code.
- All containment sumps associated with UST systems where the containment sump serves as part of the interstitial monitoring system.

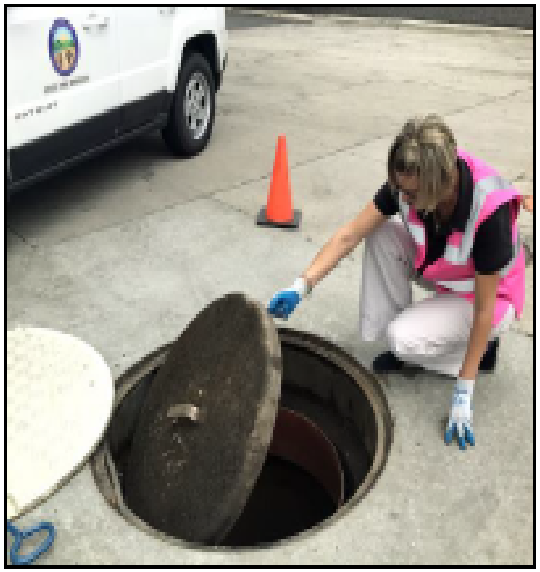

Fig. 22 – Inspection of TTC

By J. Feeman

Closer Look at Ohio

- Large number of client sites in the State of Ohio
  - Diverse client base
- A group of businesses and industries in the Toledo area formed a consortium in 1960
- Safety Council of Northwest Ohio (SCNWO)
  - Board of Directors recognized need for UST Operator Classes in 2012
  - Hired a consultant with a BUSTR approved UST Operator training program as an adjunct instructor

Safety Council Northwest Ohio

(SCNWO)

- Presentation to their educational staff of an update on the new UST regulations in January 2018
- Advised the staff that many UST owners and UST Operators trained since 2012 needed to be updated on the regulations
- SCNWO Board of Directors authorized a updated UST regulation course for their members

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Background

- Meeting with Ohio BUSTR in early January 2018
  - Ohio BUSTR regulations permit “trained” personnel to perform hydrotest of spill buckets and tank top sumps
- Meeting with Ohio EPA in early January 2018 concerning hydrotest water disposal
  - The testers needed to understand the regulations on hydrotest water disposal

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USEPA –Published Technical Topics

68 Pages of Technical Topics

epa.gov

Underground Storage Tank (UST) Technical Compendium about the 2015 UST Regulations | Underground Storage Tanks (USTs)

83-106 minutes

This compendium contains EPA's interpretations and guidance about the 2015 underground storage tank (UST) regulations. Questions and answers are presented in these categories:

- Applicability
- Implementation
- State program approval
- Spill buckets, under dispenser containment sumps, containment sumps
- Secondary containment and interstitial monitoring
- Overfill protection
- Internal lining
- Walkthrough inspections
- Release detection
- Compatibility
- Release reporting

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UST Sump Test Water Characterization and Disposal

Question: Because petroleum constituents may be present, is the used test water considered a hazardous waste under 40 CFR Part 261, *Identification and Listing of Hazardous Waste,* (RCRA Subtitle C)? (*Added: May 2017*)

Answer: Under the Resource Conservation and Recovery Act (RCRA), Subtitle C, a material must first be a solid waste as described under 40 CFR 261.2 before it can be a hazardous waste. As long as the test water is suitable for reuse and is continuing to be reused, it is not considered a waste. When it is to be disposed, it becomes a solid waste and must be evaluated to determine whether it is a hazardous waste.

Once the sump test water will be disposed, the test water will be a hazardous waste if it exhibits any of the characteristics of hazardous waste described in 40 CFR 261.21-24. With the test water, the most likely characteristics that could apply are the toxicity characteristic (TC) in 40 CFR 261.24 and ignitability characteristic in 40 CFR 261.21.

- Toxicity characteristic: The chemical benzene, often found in petroleum products, is the constituent most likely to be found in UST sump test water in concentrations equal to or greater than the TC regulatory value, which for benzene is 0.5 mg/l. Thus approximately 0.007 ounces of benzene in 100 gallons of test water would exceed the TC limit. Note: The water solubility of benzene at 23.5 degrees C is 0.188 percent, or 1880 ppm. While gasoline has typically contained approximately 1 percent benzene, in 2011 EPA required benzene to be limited to 0.62 percent; see entry 1094 of the Merck Index, 12th Ed., 1996, and Gasoline Mobile Source Air Toxics.
- Ignitability characteristic: If a representative sample of the sump

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test water exhibits a flash point below 140 degrees F at the point of generation or during the course of its management, it would be an ignitable hazardous waste. Note: Pure benzene has a closed cup flash point of 12 degrees F; see entry 1094 of the Merck Index, 12th Ed., 1996.

- Gasoline is more likely than diesel fuel, kerosene, or heating oil to be hazardous for benzene or flash point. Kerosene has a flash point of 150-185 degrees F; see entry 5305, Merck Index, 12th Ed, 1996.

Question: What procedures can be used to determine if the test water is hazardous waste under RCRA Subtitle C? (*Added: May 2017*)

Answer: 40 CFR 262.11, *Standards Applicable to Generators of Hazardous Waste*, requires generators to employ one of two procedures to determine whether or not a solid waste is a hazardous waste:

- Analytical testing: With respect to the sump test water, the relevant tests for benzene are: EPA Method 1311/8260 or 1311/5030/8015 or 1311/5030/8021 to determine if there is enough benzene in the test water that it fails for toxicity, and EPA Methods 1010A or 1020B to determine if the test water fails for ignitability. Toxicity characteristic leaching procedure, or TCLP, is the method used for determining whether a waste exhibits the toxicity characteristic; see 40 CFR 262.11. Note the TCLP test considers the solids content of the test water. More information about these laboratory test methods are available in EPA's SW-846 Compendium.
- Generator knowledge: Generators may apply knowledge of the hazard characteristics of the waste in light of the materials or the

process used to generate the waste. The key to using a knowledge of process is that it should be scientifically defensible and capable of reliably and accurately determining whether or not the waste is hazardous, particularly for non-hazardous determinations. Because only a very small amount of benzene needs to be present in order for the test water to be TC hazardous (approximately 0.007 ounces of benzene in 100 gallons of water), a knowledge of process evaluation is in all likelihood incapable of ascertaining that the test water is non-hazardous, but it certainly could be used to determine the water to be hazardous (based on the water solubility of benzene and its presence in gasoline). Appropriate knowledge of materials and process for a waste stream like the test water could include information such as:

- The process that generated the waste (that is, the fact that this process brings water into contact with gasoline, which contains benzene).
- Observation of visible free petroleum in the test water, since the test water is likely to fail analytical testing if visible petroleum is present.
- Past sampling results of prior test water generated under similar conditions.
- Basic physical and chemical knowledge about likely waste constituents.

Question: Is the test water exempt from the hazardous waste requirements via the exemption in 40 CFR 261.4 (b)(10)? This exemption states that the following solid wastes are not hazardous wastes:

40 CFR 261.4(b)(10): *"Petroleum-contaminated media and debris*

40 CFR 261.4(b)(10): *"Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of §261.24 (Hazardous Waste Codes D018 through D043 only) and are subject to the corrective action regulations under part 280 of this chapter."* (*Added: May 2017*)

Answer: The test water does not qualify for this exemption from the hazardous waste requirement for several reasons. First, the test water is not consistent with the term media or debris as defined in 40 CFR 261 and 268.2(g). That is, the water being discarded has been used as a product for testing sump integrity and is not ambient media that has been contaminated by an outside source. Second, even if it were media or debris that fails the toxicity characteristics of 40 CFR 261.24, the test water is not subject to the corrective action regulations under 40 CFR 280. Water used to test multiple sumps may pick up petroleum constituents but would not generally require reporting under the UST regulations, unless there is an indication of a release from the UST system. Therefore, sump test water does not meet the requirements for the exemption. *Federal Register*, Vol 58, No 28 (332 pp, 83 MB, About PDF).

Question: Is the test water exempt from the hazardous waste requirements if it is sent for reclamation per 40 CFR 261.2(c)(3)? (*Added: May 2017*)

Answer: The regulation at 40 CFR 261.2(c)(3) exempts from regulation off-specification commercial chemical products that are legitimately reclaimed to produce fuels. EPA has interpreted this exemption to include off-specification fuel materials such as fuel and water mixtures in a November 2016 letter (2 pp, 390K, About PDF).

This exemption could apply to the test water, if the test water contains enough fuel such that fuel could be legitimately reclaimed if the test water is sent to a fuel recycling facility for recovery.

Question: If the water is reused multiple times and transferred from one sump to another, when does a hazardous characterization have to occur? (*Added: May 2017*)

Answer: If the testing contractor or UST facility owner and operator can and does reuse the test water to perform testing at another facility, then the test water is not a waste at that point. A testing contractor or UST facility owner and operator could potentially reuse the water over and over again, especially if the test water is filtered in between uses to remove any free or dissolved petroleum. When the tester decides not to reuse the water, it then becomes a waste, must be characterized, and either properly disposed or determined if it can be reclaimed as discussed in question above about reclamation.

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Question: If the test water is characterized as hazardous waste, how must it be properly managed? (*Added: May 2017*)

Answer: Possible options include legitimate reclamation of the test water or disposing of it according to prescribed RCRA regulations.

- See question and answer above for possible reclamation options.
- Possible disposal options include:
- If the test water is not ignitable, it may be acceptable to dispose of it via the sanitary sewer. Approval from the local sewer authority is generally required and it is highly recommended that you check with your state, tribal, and local authorities for rules or other restrictions regarding such a disposal method.

- You may drum and store the test water properly until a hazardous waste hauler picks it up according to the hazardous waste generator regulations which specify accumulation time and management standards depending on how much hazardous waste is generated in a calendar month; see EPA's hazardous waste generator website for more info. Check with your state, tribal, and local authorities for the applicable requirements for hazardous waste stored on site by generators and also to determine if there are licensing requirements for hazardous waste haulers in your jurisdiction.
- You may filter the test water through an oil-water separator and properly dispose of the oil and water. Check with your state, tribal, and local authorities for requirements regarding disposal of the oil and water from the oil-water separator. It is possible that even after the water is filtered, it may contain enough benzene to be considered hazardous waste.

Question: If the test water is not characterized as being a hazardous waste, how can it be properly disposed? (*Added: May 2017*)

Answer: Even where the water is non-hazardous under the RCRA regulations, the testing contractor or UST facility owner and operator should check with state, tribal, and local authorities regarding applicable requirements for disposal, including disposal to the sanitary sewer or other safe waste management practice.

Question: Who becomes the generator for the test water when it is no longer usable and becomes a waste? (*Added: May 2017*)

Answer: This depends on when and where the test water

becomes a waste. If the test water is used just once prior to being disposed, then the facility where the test is conducted is the generation site. Under the RCRA hazardous waste generator requirements, where more than one party's actions contribute to a waste being generated, all parties are subject to joint and several liability as generators – they are co-generators. For example, the testing contractor is a generator under 40 CFR 262.10 because his actions produce the waste test water, and the owner and operator of the facility is a generator because they own the equipment from which the waste is generated. Joint and several liability dictates that both generators are responsible for ensuring compliance with applicable hazardous waste requirements. However, EPA prefers and even encourages one party to assume and perform the duties and responsibilities of generator on behalf of all parties, as appropriate. EPA recommends that co-generators specify via a contract who is responsible for compliance with hazardous waste and disposal requirements.

Question: What if it is not determined whether the test water will be reused until after the test water is returned to the testing contractor's home site? (*Added: May 2017*)

Answer: If the test water is returned to the testing contractor's home site and it is then determined the test water will not be reused, the testing contractor is the sole generator and solely responsible for evaluating and properly managing the waste.

For additional information, see EPA's *Waste Analysis at Facilities that Generate, Treat, Store and Dispose of Hazardous Waste – Final: A Guidance Manual*.

Hazardous Waste

Resource Conservation and Recovery Act (RCRA)

- UST hydrotest spill bucket and tank top sump fluid may be characteristically hazardous:
  - DOO1 Ignitability
    - 40 CFR Part 261-less than 140 degree F
  - D018 Benzene
    - TCLP tested 0.5 mg/l
      - If test results less than thresholds, not classified as hazardous
- Media impacted debris from a regulated UST release is exempt as hazardous waste for benzene only
  - **Argument could possibly be made any that tank top sump hydrotest water in contact with benzene is exempt as hazardous**
  - Spill bucket hydrotest water in contact with benzene is not exempt as hazardous

Ohio UST Clients with Portfolios

- Client #1 has 21 retail locations which they operate.
- Client #2 has 71 retail locations that they lease to individual dealers.

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UST Client Viewpoint

- Synergy talked individually to the two clients' environmental representatives that steward UST compliance:
  - One client representative was vaguely familiar with Hazardous Waste regulations because she stewarded wastes 16 years ago in another job at a university
  - Three client representatives were completely unaware of Hazardous Waste regulations

Client Education on Hazmat

- Clients unaware of the Hazmat regulations were informed:
  - Training would be required to be a haz waste generator ($450)
  - Training would be required to sign manifest per US Department of Transportation as a hazmat shipper ($500 every 3 years)
  - Hazardous waste generator identification number required per site
  - Biannual reporting for waste
  - Emergency Coordinator on call and information posted
  - Waste minimization plan and certificate
  - Weekly inspection of containers
  - No container within 50 feet of property line
  - **New Ohio USEPA E-manifest system requiring two online training seminars**
    - **USDOT does not have E-manifest system so paper still must be signed**
  - 40 CFR 262.70 --farmers can triple rinse pesticide containers and dispose of residue on own farm

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Clients Comment:

I Thought the Compliance Costs Were Less Than $950?

(The Cost for Hazardous Waste Training)

Assessment Of The Potential Costs, Benefits, And Other Impacts
Of The Final Revisions To
EPA's Underground Storage Tank Regulations

Prepared for:

Release Prevention Division, Office of Underground Storage Tanks
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Prepared by:

Industrial Economics, Incorporated
2067 Massachusetts Avenue
Cambridge, MA 02140
617/354-0074

April 2015

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Page 66 of 167 of the Industrial Economics, Inc. Report

Exhibit 3-4

Discounted And Annualized Cost Per System Affected By Requirement [a]

Description [b]	Selected Option		Alternative 1		Alternative 2	
	Cost per System [c]	Systems Affected	Cost per System [c]	Systems Affected	Cost per System [c]	Systems Affected
Release Prevention						
Walkthrough inspections	$42	555,003	$96	555,003	$20	349,551
Periodic testing/inspections of: - Overfill prevention equipment - Spill prevention equipment - Containment sumps	$334	190,623[d]	$860	210,266[d]	$48	388,641[d]
Testing after repairs to spill and overfill prevention equipment, and secondary containment	$311	40,011	$311	40,011	$311	40,011
Eliminate flow restrictors in vent lines for all new tanks and when overfill prevention equipment is replaced	$40	63,818	$40	63,818	N/A	N/A
Release Detection						
Operability tests for release detection methods [d]	$126	165,492	$144	165,492	$126	165,492
Groundwater and vapor monitoring for release detection [e]	$59	25,475	$40	25,968	$19	25,475
Add SIR/CITLD to regulation with performance criteria	$1	2,756	$1	2,756	$1	2,756
Remove release detection deferral for emergency generator tanks [f]	$181	10,977	$207	10,977	$180	10,977
Response to interstitial monitoring alarms [h]	$0	10,634	$0	10,634	$0	10,634
Other						
Remove deferral from airport hydrant fuel distribution systems [g]	$128,829	81	$214	81	N/A	N/A
Remove deferral from UST systems with field-constructed tanks [g]	$30,745	346	$192	346	N/A	N/A
Require notification of ownership change	$5	8,726	$5	8,726	$5	8,726
Closure of lined tanks that cannot be repaired according to a code of practice	$41,803	57	$41,803	57	$41,803	57
Requirements for demonstrating compatibility with fuels > E10 and > B20	$0	234	$2	577,981	N/A	N/A
Cost to owners/operators to read regulation	$9	577,981	$9	577,981	$9	577,981
EPAct-related Provisions						
Operator training	$51	2,618	$51	2,618	$51	2,618
Secondary containment	$443	2,217[d]	$443	2,217[d]	$443	2,217[d]

[a] Cost estimates were derived using a seven percent discount rate.
[b] Requirements that apply at the facility level are converted to a system basis using a conversion factor of 2.71 systems per facility.
[c] Important: these unit costs cannot be summed to obtain a total cost per system because nearly all systems are already in compliance with some requirements of the final UST regulation.
[d] Because the number of systems affected varies depending on the individual testing requirements, we estimate the number of systems affected by all three requirements by dividing their total cost by the sum of their unit costs. For example, if the three requirements had total unit costs of $100 and created new costs of $100,000, we would estimate that they affect 1,000 systems.
[e] Costs under the Selected Option include the cost of operability tests for these types of release detection as the operation and maintenance cost, as well as the cost of conducting a site assessment or well verification, weighted by the probability that one of these is necessary, as a one-time cost. For Alternative 1, costs include a five-year phaseout of groundwater and vapor monitoring as release detection methods. For Alternative 2, costs include only the cost of operability tests for these types of release detection.
[f] Costs related to removal of deferrals for the regulation of emergency generator tanks include the cost of removal of deferrals, installation and maintenance of ATG on approximately seven percent of systems, installation and maintenance of SIR on 60 percent of systems, and performing operability tests on all EGT systems. See Appendix D for details. Costs for emergency generator tanks are lower in Alternative 2 because operability tests are performed every 3 years versus every year under other options.
[g] Because different subsets of AHFDSs are subject to different requirements, and because different requirements applicable to AHFDSs and FCTs include various types of one-time and O&M costs, we present average unit costs that divide the total cost to the affected universe by the total number of affected units. These costs include any TVM costs associated with operability tests. See Appendix A for additional details.
[h] The cost associated with this requirement would be the incremental cost difference between a tightness test (required in the baseline) and an interstitial integrity test (required by the final UST regulation). However, because the cost of an interstitial integrity test is less than the cost of a tightness test, we do not assign any cost to this requirement. See Appendix D for more information.

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EPA Clean Water Act

Pretreatment Program -Industrial Users

- Municipal Sewage Treatment
  - Publicly Owned Treatment Works (POTW)
  - RCRA Domestic Sewage Exclusion (DSE)
    - Any substance discharged to a POTW, if otherwise disposed of, would be considered a RCRA hazardous waste
    - POTW will most likely want benzene tested (EPA method 620)
  - Notification to POTW
  - Notification to USEPA Regional Waste Management
  - Notification to OH EPA Hazardous Waste

Off Specification Product is Not a Waste

- Many UST owners manage tank water bottoms as off specification fuel by having it removed by a licensed transporter
  - Water fuel mixture is removed and transported to a bulk facility where the fuel is blended back with stored bulk fuel (on specification fuel)
  - Water removed is managed in processes and is discharged via NPDES permit (National Pollutant Discharge Elimination System)
  - No criteria for % fuel and water mix

How To Manage Containment Testing Waste

- Clean inside of spill bucket or tank top containment with cloth wipe
- Any item impacted by the benzene is considered a waste impacted by the hazardous substance.
- Ohio currently has a **conditional exclusion in the hazardous waste** rules that allows **solvent contaminated wipes to be laundered** without the need for the generator to manage them as hazardous waste or the laundry or cleaning facility to obtain a hazardous waste storage permit.
- Those regulations narrowly define “solvent contaminated wipes”.
- **Other hazardous waste textiles such as gloves are not included in the definition**. The definition also limits the eligible contaminants to specified solvents, so if a solvent contaminated wipe exhibits the characteristic for toxicity for a heavy metal, it is not eligible for the exclusion for laundering.

OAC 3745-51-04 Exclusions

(A) Materials which are not wastes. The following materials are not wastes for the purpose of Chapter 3745-51 of the Administrative Code:

- (26) "**Solvent-contaminated wipes**," as defined in rule 3745-50-10 of the Administrative Code, that are sent for cleaning and reuse are not wastes from the point of generation, provided that all of the following:
- (a) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled
- "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container shall be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions.
- (b) The solvent-contaminated wipes may be accumulated by the generator for up to one hundred eighty days from the start date of accumulation for each container prior to being sent for cleaning.
- (c) At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes shall contain "no free liquids" as defined in rule 3745-50-10 of the Administrative Code.

Buried in The Regulations

- At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the **hazardous waste textiles shall contain "no free liquids"** as defined in rule 3745-50-10 of the Administrative Code.
- The hazardous waste textiles are not contaminated with acute hazardous waste as defined in rule 3745-51-30 and listed in rule 3745-51-31 or paragraph (E) of rule 3745-51-33 of the Administrative Code.
- The hazardous waste textiles do not exhibit the characteristics of ignitability as defined in rule 3745-51-21 of the Administrative Code or reactivity as defined in rule 3745-51-22 of the Administrative Code.
- All visible free flowing used oil has been removed from the textiles that are only contaminated with used oil.
- The generator of the hazardous waste textiles **provides written notice to the off-site laundry or cleaning facility** of the hazards posed by the hazardous waste textiles.
- The generator of the hazardous waste textiles provides written notice to the off-site laundry or cleaning facility of the hazardous constituents listed in rule 3745-51-11 of the Administrative Code in the hazardous waste textiles.
- The laundry or cleaning facility is subject to regulation under Section 402 or Section 307(b) of the Clean Water Act for discharge to a publicly owned treatment works or for discharge directly to the waters of the state.

No Free Liquids

OAC - 3745-50-10 Definitions and computation of time. http://codes.ohio.gov/oac/3745

(88) "No free liquids," as used in paragraphs (A)(26) and (B)(18) of rule 3745-51-04 of the Administrative Code, means that "solvent-contaminated wipes" as defined in this rule may not contain free liquids as determined by method 9095B ("Paint Filter Liquids Test"), included in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" U.S. EPA publication SW-846, and that there is no free liquid in the container holding the "wipes" as defined in this rule.

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Paint Filter Test

EPA Method 9095B

- Place material in a conical shaped cone filter
  - Filter is 60 mesh or 200 micron
- Place container under filter
- Wait 5 minutes
  - Any fluid accumulated in the container beneith the filter- FAILED test

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How To Manage the Hydrotest Fluid to Exclude it as a Hazardous Waste

- Most POTW will accept “Industrial waste” under their own guidelines
- The generator may still need to prove the benzene impact level prior to discharge
- EPA Method 620
  - Benzene limit in drinking water is 5 ppb
    - Technically if test fluid < 5 ppb, could I discharge fluid in the grass
    - Do I have off specification drinking water?
  - Benzene limit for hazardous waste is 500 ppb

Best Strategies

- Test spill buckets with vacuum
  - Test equipment cost approximately $6,000
  - Failed spill buckets will need replaced
  - Visually stained or odorous pea stone under spill bucket may be a suspected release and other investigation may be required
    - Need to hire a consultant savvy in UST release investigations
- Dispose hydrotest water at POTW
  - If you drum or transport used fluid ready for disposal, the fluid is now a hazardous waste

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The Real World

- Many of the clients are maintenance personnel at fleet vehicle facilities
- Some of the clients are farmer associations
- Many clients are municipalities with water treatment plants, wastewater treatment plants, jails, hospitals, law enforcement facilities, county highway departments

The Problems-Example 1

- Municipal Water Treatment Plant on Lake Erie had emergency generators with gasoline USTS that needed hydrotest water from spill buckets and tank top sumps disposed
- Went to the nearby municipal wastewater treatment plant (same municipality) to discuss disposal of 80 gallons of hydrotest water.
  - Average daily design flow 15.7 MGD
- Although pretreatment supervisor had no problem with the waste, plant superintendent would not authorize the discharge
  - “The solution to pollution is not dilution”

The Problems-Example 2

- One client was a municipal fire department that wanted to also educate their members about fueling systems.
- They wondered if they could just use the UST fuel (diesel) as the hydrotest fluid and then later use the hydrotest fluid as a fuel -for live fire extinguisher training


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Spill Buckets Must be Tested per Industry Standards

- PEI/RP 1200-17
- Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment at UST facilities

6. SPILL BUCKET AND CONTAINMENT SUMP TESTING

6.1 General. Spill buckets and containment sumps for tank systems are neither intended nor designed for the storage of petroleum products, but rather to contain small leaks and spills for short periods of time. This section describes the procedures used to test the integrity of spill buckets and containment sumps to ensure that they do not leak.

6.2 Spill Bucket Integrity Testing — Hydrostatic Test Method.

WARNING: Do not use fuels such as gasoline, E85 or diesel as a test fluid because they present a serious fire and safety hazard. Gasoline vapors are flammable and can explode if exposed to an ignition source such as a spark or open flame. If a tank or containment area is not tight, using fuel as the test fluid will cause a release into the soil or groundwater.

FOREWORD

These *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities* have been prepared as an industry service by the Petroleum Equipment Institute. The text represents the consensus views of the PEI Overfill, Release Detection and Release Prevention Equipment Testing Committee, comprised of the following members:

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All questions and other communications relating to this document should be sent only to PEI Headquarters, addressed to the attention of the PEI Overfill, Release Detection and Release Prevention Equipment Testing Committee.

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The Problems-Example 2 continued

- Can not use a fuel (especially gasoline) as a hydrotest fluid because of serious fire and safety hazard
  - **Have you ever tried to ignite a pan of diesel fluid?**
- Fuel as a test fluid may cause a release into the soil or groundwater if the containment is not tight
  - But a release investigation must occur if any indication of impact from a component failure
  - Some states a failed containment test requires an investigation

The Problems-Example #3

- One client had 21 locations (where all the spill buckets required testing) but only 2 locations that required the tank top sumps hydrotested.
  - Site #1 was located in the Municipality that prohibited their own Water Treatment Plant hydrotest water discharge (previous slide- Problem Example #1)
  - Site #2 was located in a municipality with a wastewater plant that would not accept the hydrotest water
    - Always talk to the plant operator prior to talking to the wastewater engineer

The Problems-Example #3 continued

- One of the 21 sites had a car wash that discharged under a permit to the Public Operated Treatment Works (POTW)
  - Site located in a municipality that also had a crude oil refinery
- POTW agreed to accept hydrotest water without testing
  - Many car washes have an oil water separator as part of the wastewater treatment
- So all hydrotest water was reused from site to site (all 21 sites) finishing at the site with the car wash, where it was discharged
- Total miles traveled by the hydrotest water-237 miles

Summary and Conclusions

- **Vast majority of UST owners want to do the right thing**
  - They get extremely frustrated trying to navigate all the UST regulations, let alone hazardous waste regulations
  - Sometimes I cannot logically explain the regulations
- **If diesel fuel could have been used as a hydrotest fluid** under a fire professional or professional engineer providing a safety protocol, it could have been drained into the UST (even into gasoline USTs)
  - I do not think tank testers would ever agree to that protocol
  - UST State Fund coordinators would probably deny a claim for a release

Summary and Conclusions continued

- **The gasoline impacted hydrotest water leaks into the environment with a failed test**.
  - When it leaks into the ground, it is exempt as a hazardous waste.
  - If the containment is tight, that same hydrotest water is a hazardous waste
- **I am not convinced that regulated tank contractors are completely compliant with hydrotest water disposal**
  - I developed a questionnaire for my clients about hydrotest water disposal and the numerous responses did not seem to portray a competent knowledge of RCRA and DOT regulations
    - UST owners are considered co-generators of the hazardous waste
    - I am a registered agent for some clients and I declined to be involved with their contractors and disposal of hydrotest water

Summary and Conclusions continued

- States should consider the Alabama UST hydrotest water disposal guidelines
  - Cloth wipes used on spill buckets prior to test fluid go into the dumpster
  - Hydrotest water is not considered a hazardous waste
  - Hydrotest water must be disposed at a processing facility that has a NPDES permit
    - If you have problems finding such a facility, you can call ALDEM and get information on nearby facilities.