

Agenda

Department of Natural Resources and Environmental Control

Underground Storage Tank Advisory Committee Meeting

January 24, 2017

Introductions	10:00-10:05
Review of Minutes from October 26, 2016 Meeting	10:05-10:15
Discussion of Responses to the Question of "What would you like the USTAC to Work On?"	10:15-10:45
Improving the UST Installation Process	10:45-11:00
Break	
Discussion of Draft Changes to the UST Regulations	11:10-11:45
Updated Schedule For UST Reg Changes	11:45-11:50
Public Comment	11:50-12:00

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UST Advisory Committee January 24, 2017

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Name (Please Print)	Initials	Company	E-mail address
Beck Ted	TB	PMC	tbeck@petromg.com
Brightback Frank	FB	SOUTHERN STATES	frank.brightback@sscoop.com
Brown Kenneth	KB	GSA	Kenneth.brown@gsa.gov
Eller Darrell			Darrell.Eller@pbfenergy.com
Fetters Richard			Richard.Fetters@pbfenergy.com
Gubitosi Tony	TG	GSA	tony.gubitosi@gsa.gov
Hayes Michael	MS	Delaware County Parkway	Michael.Hayes@pbfenergy.com
Kachel William	WK	W.M.V. Kachels	WPK(UK-e Vermont + NET
Kubinsky Ed	ES	Small & Kirby ()	ed.kubinsky@crompco.com
Leicht, R. T.	RL	STATE F. H.	R.T.Leicht@state.de.us
Lopez Tony	JL	GSA	Tony.Lopez@gsa.gov
Marshall Karen	KM	Southern States	
Negrete Richard			RNegrete@gpminvestments.com
Oneill Brian			Brian.Oneill@wawa.com
Rossi Joe			jrossi@envalliance.com

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UST Advisory Committee January 24, 2017

[Type here]

Name	Acronym	Organization	Email
Smith Randy	EBC	pca engineering	
Spears Zachary			
Stiller Kathy	TMS		KStiller@brightfieldsinc.com
Tiller Doyle	DF		doyle.tiller@state.de.us
Wilmot-Bruno Melissa	MWB	Antea Group	Melissa.Wilmot@anteagroup.com
Worth Josh	WJ	Wawa	joshua.m.worth@wawa.com
Logue, William	WFL	TankKnology	WLogue@tanknology.com
Mary Guffe			
MICHITIA SINGH		meeting	
Steve Stasky	SMD	SMD	SStasky@twg.net
Mark Dery	UST		mderey@ustservicescorp.com
Sandra Carl	UST	Sunoco	SANDRA.CARL@SUNOCO.COM
Todd Coons	UST	RLF	coons@rlf.com
CHRIS BROWN	DUREC	TMS	
David Gilber	DUREC	TMS	
David H. ...	DUREC	TMS	
Paula ...		TMS	

[Type here]

UST Advisory Committee January 24, 2017

[Type here]

Name (please print)	Phone Number	Company	E-mail address (please print)
Cheryl Hess	302-824-3673	Calpine	cheryl.hess@calpine.com
Ross Elliott		TMS	
Rubin Hughes	302-398-2061	Coastal Pump + Tank	CPT6598@AUL.COM
J. Wall	302-575-0300	Jen Fly	jim@meddaconcrete.com
Tim DeSchepper	302 378 1164	Middletown	tdescheppe@mddlitawnde.org
Charles Rhodes	302 584 1710	Batta Env. Assoc.	charles.rhodes@battaenv.com
Mark Whitefield	302 422 7110	City of Milford	mwhite@milford-de.gov
Shelley Grabel	302-259-6386	Del Tech	Sgrabel@dtcc.edu

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UST Advisory Committee January 24, 2017

[Type here]

Name (please print)	Phone Number	Company	E-mail address (please print)
I.B.B INC			
ANTAR NAZI	302-898-3249	I.B.B INC	ABUAI718@Yahoo.com
JOYAL ZAY	302-234-4400	Env Alliance	JZAY@envAlliance.com

USTAC Advisory Committee

Meeting Minutes
October 26, 2016

Opening

The first meeting of the USTAC Advisory Committee was called to order at 10am on October 26, 2016 in New Castle, DE by Alex Rittberg.

Present

Alex Rittberg, David Peterson, Pat Carzo, Mark Devey, Heidi Lentz, Rubin Hughes, Brett Michaels, R.T Leicht, Ted Beck, Hilary Valentine, Shelley Gabel, Ed Kubinsky, Ellen Valentino, Frank Breitbach, Mark Smith, Richard Negrete, Melissa Wilmot-Bruno, Patti Deptula, Gerald Pepper, Doyle Tiller, Shaikh Tayeb, Garcia Garnett, Ed Rhodes, Sandy Carl, Phil Georghiou, Josh Worth, Abigail Morrissey, Todd Coomes, Steve Stookey, Mark Baker, Al Schrum, William Towers, Tom Mckenna, Kathy Stiller, Marjorie Crofts, Chris Brown, Lori Spagnolo, Barbara Fawcett, Sara Golladay, Anne Martin, Mike Moyer, Pete Rollo, Jenn Vavala, Nina Dietrich

Minutes

1. Presentations were presented by Alex Rittberg, Lori Spagnolo, and Barb Fawcett can be found at <http://www.dnrec.delaware.gov/tanks/Pages/default.aspx>

2. The following questions were asked during the course of the meeting:

Q1 How is the DNREC UST Program funded?

A1: The UST Program is funded by a combination of grants and fees. The UST Program receives two grants from the EPA, the Leaking Underground Storage Tank Prevention Grant, and the Leaking Underground Storage Tank Corrective Action Grant. These grants total approximately 1 million dollars per year. The majority of the funding from the grants goes towards salaries. In addition to the grants, the UST Program receives tank registration and vapor recovery permitting fees to assist in funding the UST Program. Alex Rittberg committed to providing Ms. Ellen Valentino a detailed list of program revenue sources and expenses.

Q2: How many delivery prohibitions or red tagging events are there per year?

A2: In 2016, DNREC has issued delivery prohibition tags at four different facilities. In 2015, DNREC issued delivery prohibition tags at two facilities, and in 2014 only one.

Q3: Where are the weaknesses within the UST Program? Where do you think you need more funding?

A3: Alex Rittberg stated that we currently have to prioritize projects based on risk to human health and the environment and that there are several projects where the Department has determined that state lead cleanup work needs to be performed, but we currently do not have enough funding to get them started. Mr. Rittberg and Ms. Marjorie Crofts, also mentioned that given our current funding situation, we are only focusing on projects that have an immediate impact to health or may contaminate someone's drinking water well. There was also additional discussion on the need to lessen the turnaround time for reviews of UST installation plans.

Q4: Can DNREC be as stringent as the Federal UST Regulations rather than more stringent when it comes to inspecting containment sumps as part of the 30 day walk around inspections? The comment was also stated that lifting the larger sump covers on a monthly basis is a health and safety concern, meaning that someone could be struck by a vehicle during the inspection, and the requirement is too much of a burden for the UST owner.

A4: Alex Rittberg stated that DNREC and the USTAC could continue having discussions on this matter.

Q5: It was suggested that DNREC incorporate two different sets of requirements into the regulations, one for owners who have updated their UST systems with the latest technology, and another for owners of older systems that have not upgraded their facilities. The older systems would have more inspections and testing requirements.

A5: Alex Rittberg stated that DNREC and the USTAC could have continued discussions on this suggestion.

Q6: With regards to applying new technologies, someone asked what new technologies should the USTAC be researching? –

A6: Alex Rittberg stated that we will need to look at technologies that support release detection methods, secondary containment, and compatibility requirements.

3. Additional remarks by Alex Rittberg:

- EPA will be a part of the process throughout the revisions rather than waiting until after submitting the regs.
- DNREC will publish a draft containing some of the changes prior to the next meeting which will be held January 25, 2017.
- Timeline for Regulation Development:

List of Responses by the Participants at the State of Delaware's Underground Storage Tank
Advisory Committee Meeting on October 26, 2016 to the Question:

What would you like the USTAC to work on?

Common Themes

- Continue to Use technology to meet program needs.
- Improve timeliness of UST installations and Permitting
- Be consistent with federal requirements for system testing and 30 day owner inspection requirements.
- Have clear guidance explaining rules and testing requirements.

What would you like the USTAC to work on?

Program Administration

1. Focus on non-compliant USTs.
 - a. Highest Significant Operational Compliance Rates
 - b. Share stories of most frequent violations such as owners not maintaining enough fuel in the tank to conduct leak detection.
2. Look at developing an Ad-hoc committee that meets periodically like MD.
 - a. We can talk to Maryland staff, attend a meeting, or invite them to talk about it.
 - b. We meet as Region 3 states in May of each year.
3. Cleanups – Increase funding
 - a. Continue to budget through HSCA Process prioritizing based on the risk to human health and the environment.
 - b. We are not a state fund state, and expect responsible parties to maintain financial responsibility mechanisms such as insurance to pay for corrective actions when needed.

WEBSITE/Data Management

4. Can reporting by owner be done online and stored in database? To allow for statistical analyses of monitoring, detection hydro water level, water quality in wells.
 - a. Not at the moment but we are moving in that direction with several information technology initiatives relating to electronic content management and use of an Environmental Quality Information System or EQIS that manages soil and groundwater data from a lab electronically that is GIS based.
 - b. Forms currently are printable fillable PDFs.

List of Responses by the Participants at the State of Delaware's Underground Storage Tank
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What would you like the USTAC to work on?

- c. Our compliance team use tablets to store facility specific owner, equipment, and compliance data when performing inspections.
- 5. Date all regs – updates on website to ensure we are using current regs.
 - a. Regulations links on the web direct you to the authenticated version of the regulations supported by the Registrar of Regulations.
- 6. Website search field – able to search for specific questions (i.e., when is training required? what are reporting requirements?). Allows you to click on that section of the regulations.
 - a. We are in the process of webpage redevelopment. It can be user friendly.
 - b. We also have guidance manuals written in plain English with pictures that describe what owners need to do.
 - c. Change regs, change forms, change training materials, and guidance documents.

TRAINING/EDUCATION

- 7. Operator training and training materials.
 - a. Currently partnering with Deltech to develop online training and heating fuel course.
 - b. DNREC assists in the development of course materials.
- 8. Should DNREC develop a “tester” certification or registration?
 - a. We currently have a contractor certification for UST installation, retrofit, and removals. We certify companies and individuals. We also maintain a list of vapor recovery testing companies. We can look at updating our contractor certification to include knowledge of testing procedures.
- 9. Outreach for tank owners and realtors.
 - a. We have information on the web, and within the last two years with the change in liability have spoken to both commercial and residential realty groups about our program.
- 10. Educational needs and mandates.
 - a. Open to suggestions on what owner or contractors need for training.
- 11. Understanding of changes to notice for activities.
 - a. We can continue to explain rule changes as we propose them.

Process Improvements

- 12. Reduce permit review time.
- 13. Provide an exact checklist/Rep's for install permits.

List of Responses by the Participants at the State of Delaware's Underground Storage Tank
Advisory Committee Meeting on October 26, 2016 to the Question:

What would you like the USTAC to work on?

14. Reduce/Eliminate retrofit permits requirements.
15. Retrofit permit process.
16. Clear, written permit requirements for tank installations.
17. Tank installation permit process.
18. Reform permit process so it does not take 6 months for review and approval.
19. Timeliness for permits being returned/approved.
20. Decrease permitting time.
21. Streamline permitting process.
22. Review of current finances/funding – permit fee structures.

TECHNICAL

23. Less discretion in regs (need to be clearer).
24. Alignment of Fed Regs and DNREC Tank Regs (try not to make the DNREC Regs more onerous than Fed Regs).
25. Stormwater coordination with MS4 industrial stormwater program.
 - a. Ongoing coordination meetings. Objections to use of underground storage and infiltration of stormwater at gas station facilities.
26. How AST piping will be addressed and coordinating with AST regulations.
 - a. Generally have one set of regulations govern the situation. It all starts with whether it's an AST or UST.
27. Pre-2008 double walled product lines
 - a. Not sure what is the issue.
28. Any DEF (Diesel Exhaust Fluid) mention in the new regs?
 - a. Not currently considered a regulated substance. Urea added to exhaust system to reduce Nitrogen Oxide emissions. Could cause ammonia and nitrate issues in groundwater.
29. Overfill protection methods: flapper requires fuel delivery truck to have flapper tool?
 - a. Comment to involve delivery companies in discussions is a good one. Elbows are used to connect hoses to Stage I coupling or swivel adapter.
30. Reconsider CPM utilization with Stage II Decommissioning.
 - a. Air quality is the lead on this issue. The DNREC TMS supported the use of a trial period and anticipated the result that a Stage I EVR system will stay under negative pressure and control emissions.
31. Mandate STP & Dispenser Sump Installation.
 - a. Good comment.

List of Responses by the Participants at the State of Delaware's Underground Storage Tank Advisory Committee Meeting on October 26, 2016 to the Question:

What would you like the USTAC to work on?

32. Any thought on getting fuel carriers involved since they affect the delivery of fuels to a UST System. Carriers need to be responsible to avoid overfills.
 - a. We will reach out to them and see if they want to participate.
33. Provide assistance in determining how to respond to microbes in diesel – hopefully this will be resolved prior to EPA lowering sulfur content in gasoline.
 - a. The DNREC-TMS is staying informed about the issue. Keep the water and ethanol out of the diesel tank. The microbes form feed on the ethanol and can the fuel and form acetic acid causing.

RETROFITS

34. Address emergency repairs/retrofits.
 - a. We handle these via phone calls and expedite approvals when necessary.
35. Guidelines for retrofit testing.
 - a. We specify the tests that are needed in the retrofit confirmation/approval. The issue is likely having guidelines to be more consistent.

UST TESTING/30 DAY WALK AROUND INSPECTION REQUIREMENTS

36. Clarify all testing requirements – be consistent.
37. Clear testing and compliance guidelines.
38. Monthly inspections – requirements/details of inspection items (sumps).
39. Reconsider operator inspections when containment monitoring is present.
40. Frequency of sump testing.
41. Can sump testing protocol follow federal recommended practices (3 yr. – filling sumps completely vs. above penetration).
42. Change monthly visual sump inspections to Federal annual walk through inspection.
43. For those with electronic sensors in the sumps, would like to see Reg A rewritten to allow less frequency to inspect vs those without electronic sensors.
44. Should DNREC adopt standardized forms for documenting newer testing and inspection requirements such as PEI RP1200?
45. Would DNREC consider incorporating PEI RP1200 into the regs for completing all the new testing that is mandated?
46. Accepting new technology
 - sensors for STP containments follow the EPA for STP sump checks – annually.
 - monthly release detection reports accept 3rd party reporting documents.
47. Release detection of piping: interstitial monitoring required? Frequency done by owner?

List of Responses by the Participants at the State of Delaware's Underground Storage Tank
Advisory Committee Meeting on October 26, 2016 to the Question:

What would you like the USTAC to work on?

48. What detection methods to allow: interstitial monitoring.
49. Statistical Report – essentially a “fuel” budget, why not allowable primary detection method. Are other methods really better? Others may depend on sensors that stop working. But inventory would need to be high frequency like daily.
50. Focus on preventative groundwater pollution monitoring efforts.
51. Consider requiring double-walled spill buckets and maybe cut back on testing requirements (maybe every 2-3 years instead of annual).
52. What are the 30 day monthly inspections going to entail?
53. Frequency of walk around inspections: continuous sensors in place = less frequent vs. no continuous sensors in place = more frequent.

- Draft Regulations and Solicit Feedback from Stakeholders October 2016-July 2017.
- Aiming on publishing August 2017
- Conduct public hearing in October 2017
- Promulgate Changes to the UST Regulation January 2018
- Submit Draft State Program Approval Documents to EPA April 2018
- Submit Final State Program Approval Documents to EPA August 2018

4. Alex Rittberg then asked the USTAC to fill out the form that asked meeting participants what activities the USTAC should focus on. Due to time constraints the USTAC decided to have Mr. Rittberg collect the forms and compile a list of suggestions which will be sent out to the meeting participants with the meeting minutes.

Adjournment

The Meeting was adjourned at 12pm by Alex Rittberg. The next general meeting will be on January 25, 2017, in New Castle, DE.

Minutes submitted by: Jennifer Vavala

Approved by: Alex Rittberg



Purpose of USTAC

- The purpose of the Underground Storage Tank Advisory Committee is to provide feedback and assist the Department in developing changes to the Delaware Underground Storage Tank Regulations and improving Delaware's Underground Storage Tank Program.
- Members are expected to share their perspective and technical expertise to assist DNREC in these efforts.

January 24, 2017

Delaware USTAC



Agenda

- | | |
|---|-------------|
| 1. Introductions | 10:00-10:05 |
| 2. Review of Minutes from October 26, 2016 Meeting | 10:05-10:15 |
| 3. Discussion of Responses to the Question of "What would you like the USTAC to Work On?" | 10:15-10:45 |
| 4. Improving the UST Installation Process | 10:45-11:00 |
| 5. Break | |
| 6. Discussion of Draft Changes to the UST Regulations | 11:10-11:45 |
| 7. Updated Schedule For UST Reg Changes | 11:45-11:50 |
| 8. Opportunity for Public Comment | 11:50-12:00 |



Meeting Governance

Chair: Alex Rittberg and Co-Chair Lori Spagnolo (Primary Facilitators)
 Focuses on the process – the how of the session. Preserves the integrity and disciplined use of the process. Guides the process without directing it. Invites people to attend the meeting and designates them as committee members.

Committee Members Share responsibility for a successful group session with the primary facilitator.

Note Taker: Jenn Vavala Takes detailed notes of the meeting for distribution later.

Timekeeper: Nina Dietrich Monitors how long the group is taking to accomplish its tasks. Provides regular updates to keep group members moving forward.



Promulgation Schedule

- Tuesday January 24, 2017 Discuss Initial Draft of Changes with the USTAC
- Wednesday April 19th, 2017 Share 2nd draft of charges with USTAC and EPA
- Thursday May 4th, 2017 Conduct USTAC3 Meeting
- Thursday July 4, 2017 Make any necessary changes to 3rd draft and share with USTAC and EPA
- July 1, through September 15, 2017 EPA Review
- Thursday November 9, 2017 Share Draft 4 with USTAC and EPA
- Wednesday November 15, 2017 Conduct USTAC4 Meeting
- Tuesday and Thursday January 16 and 18, 2018 Conduct Public Workshops
- Thursday, March 15, 2018 Proposed Regulations to State Register



What would you like the USTAC to work on?

- Grouped items into Categories-53 Ideas and Suggestions
- Program Administration
- Website/Data Management
- Training/Education
- Technical
- Process Improvements-Installation Process
- Technical
- Retrofits
- UST Testing/30 Day Inspection Requirements
- Common Themes



Meeting Governance USTTAC Meeting Ground Rules

- Start and End on Time
- No side conversations
- Respect the agenda
- Keep an open mind
- Respect differences of opinion
- No personal attacks
- Be positive
- Speak one at a time and give everyone a chance to speak
- Be honest and have trust
- Ask questions
- Help facilitator, scribe and note taker capture ideas accurately.
- State a purpose when introducing each new topic.
- Decisions by consensus with motions and votes
- Bio breaks as needed
- Share responsibility for team's progress



What would you like the USTAC to work on?

- Program Administration
- 1. Focus on non-compliant USTs.
- 2. Look at developing an Ad-hoc committee that meets periodically like MD.
- 3. Cleanups – Increase funding



What would you like the USTAC to work on?

Website/Data Management

4. Can reporting by owner be done online and stored in database? To allow for statistical analyses of monitoring, detection hydro water level, water quality in wells.
5. Date all regs – updates on website to ensure we are using current regs.
6. Website search field – able to search for specific questions (i.e., when is training required? what are reporting requirements?). Allows you to click on that section of the regulations.



What would you like the USTAC to work on?

Process Improvements/Installation

12. Reduce permit review time.
13. Provide an exact checklist/Rep's for install permits.
14. Reduce/Eliminate retrofit permits requirements.
15. Retrofit permit process.
16. Clear, written permit requirements for tank installations.
17. Tank installation permit process.
18. Reform permit process so it does not take 6 months for review and approval.
19. Timeliness for permits being returned/approved.
20. Decrease permitting time.
21. Streamline permitting process.
22. Review of current finances/funding – permit fee structures.



What would you like the USTAC to work on?

Training/Education

7. Operator training and training materials.
8. Should DNREC develop a “tester” certification or registration?
9. Outreach for tank owners and realtors.
10. Educational needs and mandates.
11. Understanding of changes to notice for activities.



UST Installation/Retrofit Process Improvements

- Meeting was held December 16, 2016 with Mid Atlantic Petroleum Distributors Association, Baker Petroleum, WaWa, Royal Farms, Sunoco, SMO .
- Shared perspectives on how to shorten the time necessary to obtain Department approval of a UST installation plan and eliminate the need for multiple rounds of comments and re-submittal of documents.



UST Installation/Retrofit Process Improvements

- DNREC-TMS agreed to copy owners on deficiency letters sent to contractors or consultants that prepare the installation plans.
- DNREC-TMS agreed to share information concerning how other states conduct UST installation reviews.
- DNREC-TMS will require a mandatory meeting with the owner and their consultant or contractor when a review of any specific project takes more than three rounds of comments and submittals for the application to be considered complete.



What would you like the USTAC to work on?

Technical

23. Less discretion in regs (need to be clearer).
24. Alignment of Fed Regs and DNREC Tank Regs (try not to make the DNREC Regs more onerous than Fed Regs).
25. Stormwater coordination with MS4 industrial stormwater program.
26. How AST piping will be addressed and coordinating with AST regulations.
27. Pre-2008 double walled product lines.
28. Any DEF (Diesel Exhaust Fluid) mention in the new regs?



UST Installation/Retrofit Process Improvements

- Owners expressed a desire for DNREC-TMS to maintain a library of cut sheets describing specific equipment included in UST installation plans, so that the same information doesn't have to be re-submitted with each application.
- Owners expressed a need for the Department to allow some retrofits such as a spill bucket replacement to occur with only a requirement to notify the Department verses obtaining a written approval prior to work being allowed to proceed.
- DNREC-TMS has hired a second engineer for plan reviews.
- DNREC-TMS has posted an installation plan checklist on our website.
- DNREC-TMS goal to reduce the average time from submittal to initial review to 60 days.



What would you like the USTAC to work on?

Technical

29. Overfill protection methods: flapper requires fuel delivery truck to have flapper tool?
30. Reconsider CPM utilization with Stage II Decommissioning.
31. Mandate STP & Dispenser Sump Installation.
32. Any thought on getting fuel carriers involved since they affect the delivery of fuels to a UST System. Carriers need to be responsible to avoid overfills.
33. Provide assistance in determining how to respond to microbes in diesel – hopefully this will be resolved prior to EPA lowering sulfur content in gasoline.

What would you like the USTAC to work on?



Retrofit

- 34. Address emergency repairs/retrofits.
- 35. Guidelines for retrofit testing.

What would you like the USTAC to work on?



Testing and 30 Day Walk Around Inspection

- 41. Can sump testing protocol follow federal recommended practices (3 yr. – filling sumps completely vs. above penetration).
- 42. Change monthly visual sump inspections to Federal annual walk through inspection.
- 43. For those with electronic sensors in the sumps, would like to see Reg A rewritten to allow less frequency to inspect vs those without electronic sensors.
- 44. Should DNREC adopt standardized forms for documenting newer testing and inspection requirements such as PEI RP1200?

What would you like the USTAC to work on?



Testing and 30 Day Walk Around Inspection

- 36. Clarify all testing requirements – be consistent.
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- 40. Frequency of sump testing.

What would you like the USTAC to work on?



Testing and 30 Day Walk Around Inspection

- 45. Would DNREC consider incorporating PEI RP1200 into the regs for completing all the new testing that is mandated?
- 46. Accepting new technology
 - sensors for STP containments follow the EPA for STP sump checks – annually.
 - monthly release detection reports accept 3rd party reporting documents.
- 47. Release detection of piping: interstitial monitoring required? Frequency done by owner?
- 48. What detection methods to allow: interstitial monitoring.



What would you like the USTAC to work on?

Testing and 30 Day Walk Around Inspection

- 49. Statistical Report – essentially a “fuel” budget, why not: allowable primary detection method. Are other methods really better? Others may depend on sensors that stop working. But inventory would need to be high frequency like daily.
- 50. Focus on preventative groundwater pollution monitoring efforts.
- 51. Consider requiring double-walled spill buckets and maybe cut back on testing requirements (maybe every 2-3 years instead of annual).
- 52. What are the 30 day monthly inspections going to entail?
- 53. Frequency of walk around inspections: continuous sensors in place = less frequent vs. no continuous sensors in place = more frequent.



Removing Deferrals for Field-Constructed USTs and Airport Hydrant Fuel Distribution Systems



- **New Federal Requirements:**
 - Requires Release Reporting, Spill Prevention, Overfill Prevention, Release Protection, Cathodic Protection, Operator Training.
 - Exceptions to meeting secondary containment requirement for some FCT & AHS piping
 - Provides unique options for meeting release detection requirements

23



Discussion of Draft Changes to UST Regulations

Draft changes based on Federal Rule Changes

- Airport Hydrant Fuel Systems and Field Constructed Tanks
- Emergency Generator Tanks
- Operator Training
- 30 Day Walk Around Inspections
- Overfill Protection
- Secondary Containment
- Containment Sump Testing
- Other Definitions
- Reference Standards



Removed Partial Deferral-Pg. 2

1.2.2 → → → → The requirements contained in these Regulations with the exception of requirements in Part A, §1.3 and Part E of these Regulations do not apply to any of the following UST Systems: ¶

1.2.2.1 → → → → Any UST System containing radioactive material that is regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011) ¶

1.2.2.2 → → → → Any UST System that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission in accordance with 10 CFR Part 50, Appendix A ¶

~~1.2.2.3 → → → → Airport Hydrant Fuel Systems ¶~~

~~1.2.2.4 → → → → UST Systems with field-constructed tanks ¶~~

1.2.2.4f → → → → Wastewater treatment tank systems ¶



Changed Definitions Pgs. 3 & 5

"Airport Hydrant Fuel System" means a UST system which fuels aircraft and operates under high pressure with large diameter piping that typically terminates into one or more hydrants, also known as fill stands. The airport hydrant system begins where fuel enters one or more tanks from an external source such as a pipeline, barge, rail car, or other motor fuel carrier.

"Field-Constructed Tank" means a UST which is constructed by assembling on-site at a Facility.

Consistent with New Federal Definitions



Draft regulations are more stringent in that we are not allowing vapor or groundwater monitoring for piping release detection.



Added Technical Standards

Part H: Field Constructed Tanks Pg. 253

Part I: Airport Hydrant Fuel Systems Pg. 258

Requirement	Effective date
Upgrading UST systems; general operating requirements; and operator training	Three years after the most recent effective date of these regulations
Release detection	Three years after the most recent effective date of these regulations
Closure; financial responsibility and notification (except as provided in paragraph (b) of this section)	Six months after the most recent effective date of these regulations
Release reporting, response, and investigation	already in effect



Removing Deferral for Emergency Generator USTs

DNREC has had requirements release detection for emergency generator USTs since 2008.

New Federal Requirements:

- Removes the deferral and requires release detection for existing tanks and piping associated with Emergency Generator USTs. New installations must meet all standards.

What DNREC will need to change:

- New and existing emergency generator USTs release detection for piping will need to be modified.





Part B 1.3 Emergency Gen. Pg. 52

1.30.3 → → → Owners and Operators of UST Systems used solely for the storage of a Regulated Substance to power emergency generation equipment may utilize monthly walled tank tightness testing or continuous interstitial monitoring for double walled UST Systems as a method of Release Detection for the life of the UST provided the tank tightness testing is performed in accordance with the tank tightness test requirements in §2.9.7 of this Part, or may utilize a method in §1.9 of this Part.¶

Part B 2.31 Emergency Gen. Pg. 88

2.31.3 → → → Owners and Operators of UST Systems used solely for the storage of Regulated Substance to power emergency generation equipment may utilize monthly tank tightness testing for single walled UST Systems and continuous interstitial monitoring for double walled UST Systems as a method of Release Detection for the life of the UST provided the tank tightness testing is performed in accordance with the tank tightness test requirements in §2.9.7.2-2.9.7.6.4 of this Part, or may utilize any method in §2.9 of this Part.¶



Part A 2.0 Definitions Pg. 3

→ → → "Class A Operator" means thean individual who hashaving primary responsibility to operate and maintain maintaining thefor the overall operation and maintenance of an UST System in accordance with applicable requirements established by the implementing agency. The Class A operator typically manages resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements.¶

→ → → "Class B Operator" means thean individual who has day-to-day having responsibility for implementing applicable regulatory requirements established by the implementing agency. The Class B operator typically implements in-field aspects of and direct control over daily on-site operation and maintenance, and associated recordkeeping for the of an UST System.¶

→ → → "Class C Operator" means thean individual responsible for initially on-site employee having primary responsibility for addressing emergencies presented by a spill or release Release from an UST System. The Class C operator typically controls or monitors the dispensing or sale of regulated substances.¶

Consistent with New Federal Definitions.



Operator Training Requirements

DNREC Has Had UST Operator Training Requirements in Place Since 2010

New Federal Requirements:

- Owners must designate and ensure 3 classes (A, B, & C) of operators are trained
- Recordkeeping is required for as long as the operator is designated at the facility
- Retraining is required for Class A and B operators at facilities determined to be out of compliance



Part A 2.0 Definitions Pg. 12

→ → → "Training Program" means any program that provides information to and evaluates the knowledge of a Class A, Class B, or Class C operator through testing, practical demonstration, or another approach acceptable to the implementing agency regarding requirements for UST Systems that meet the requirements of Part A, §10. Requirements for Operator Training 140 CER Parts 2801 Technical Standards and Corrective Action Requirements for Owners and Operators of USTs, Subpart L, Operator Training, §2801.2.401.¶

Consistent with New Federal Definition.

Part A 10 Operator Training Pg. 27

10.1.6 At a minimum, the training program must evaluate Class A and Class B Operators to determine these individuals have the knowledge and skills to make informed decisions regarding compliance and determine whether appropriate individuals are fulfilling the operation, maintenance, and recordkeeping requirements for UST Systems in accordance with §10.1.10 of this Part.

Training Programs must have a test.

Part B 1.31 Routine Inspections Pg. 53

1.31.1 → → → Owners and Operators shall conduct an inspection at an interval no less frequently than once every thirty (30) days to monitor the condition of the UST System including but not limited to all dispensers, dispenser sumps, access ports, spill containment devices, sumps and Containment Sumps. The routine inspection shall at a minimum include the following:†

1.31.1.5 → → → → → The inspection of all hand held release detection equipment, such as, but not limited to, tank gauge sticks or groundwater bailers, for operability and serviceability.†

30 Day Walk Around Inspections

DNREC Has Had Routine Inspection Requirements in Place Since 2008

New Federal Requirements:

- Walk around inspection every 30 Days
- Check spill prevention equipment
- Check release detection equipment and records
- Annually
- Check containment sumps
- Check hand held release detection equipment

What DNREC will need to change:

- 28-31 Days will Change to every 30 Days
- DNREC is currently more stringent in inspecting containment sumps as part of 30 day walk around inspection.



Requirements for Overfill Protection

New Federal Requirements:

- Overfill protection equipment will be checked every 3 years.
- Inspect to make sure overfill operates as intended
- Ball Floats will not be allowed on retrofit or new installations.



What DNREC will need to change:

- DNREC will add a three year inspection requirement for owners/operators to demonstrate that overfill equipment functions properly.
- Prohibition on installing ball floats at new installation or when replacement is needed.

What DNREC would like to change: Phase out the use of ball floats on all systems.



Part B 1.22 Overfill Protection Pg. 53 & 78

1.22.3 → → → Owners and Operators shall install and maintain overfill prevention equipment that shall.¶

1.22.3.1 → → → → → Automatically shut off the flow into the UST when the UST is no more than ninety-five (95%) percent full. ¶

1.22.3.2 → → → → → Alert the transfer operator when the UST is no more than ninety (90%) percent full by restricting the flow into the UST or triggering a high-level alarm. ¶

1.22.3.3 → Vent-line flow restrictors (ball float valves) shall not be utilized for overfill prevention not later than three (3) years after promulgation of these Regulations. ¶



Secondary Containment Requirements

DNREC Has Had Secondary Containment Requirements in Place Since 2008

New Federal Requirements:

- Requires new and replaced tanks and piping to be double walled.
- Requires interstitial monitoring (and sumps if they are used for interstitial monitoring)
- Requires under-dispenser containment for new dispenser systems

What DNREC would like to change:

- Phase out non liquid tight containment found at the tank top and under dispensers.



Part B 1.22 Overfill Protection Pg. 53

1.22.6 → → → → Owners and Operators shall ensure that overfill prevention equipment must be inspected at least once annually. At a minimum, the inspection must ensure that overfill prevention equipment is set to activate at the correct level specified in §1.22.3 of this Part and will activate when regulated substance reaches that level. Inspections must be conducted in accordance with §1.9.4 of this Part. ¶



Part A 2.0 Definitions Pg. 5

→ "Dispenser" means equipment located aboveground that dispenses regulated substances from the UST System. ¶

→ "Dispenser System" means the dispenser and the equipment necessary to connect the dispenser to the underground storage tank system. ¶

→ "Liquid Tight" means under dispenser containment and UST top sumps that are impervious to the substance contained or to be contained so as to prevent seepage of Regulated Substance from the containment into the environment. ¶

Part A 2.0 Definitions Pg. 11, 12

→ → "Secondary Containment" or "Secondarily Contained" means a release prevention and release detection system for a tank or piping. This system has an inner and outer barrier with an interstitial space that is monitored for leaks. This term includes containment sumps when used for interstitial monitoring or piping installed to prevent any volume of Regulated Substance Released from the Tank and Piping system from reaching the soils or water outside the system for the anticipated period of time necessary to detect and recover the Released substance.¶

→ → "Under-Dispenser Containment" or "UDC" means containment underneath a dispenser system designed to prevent leaks from the dispenser and piping within or above the UDC from reaching soil or groundwater.¶

We still need to add a definition for Containment Sump.

Part B 1.25.1.1 Secondary Containment Pg. 47

→ 1.25.1.1 → → → All Dispenser, Tank top, transition and any other Containment Sumps of single wall design and not considered Liquid Tight be prohibited three (3) years after promulgation of these Regulations and shall be replaced prior to and no later than three (3) years after promulgation of these Regulations.¶

Eliminates Sumps that are not liquid tight.

Part B 1.4.3 Secondary Containment Pg. 30,31

1.4.3 → → → Secondary containment systems shall include the following: ¶
1.4.3.1 → → → Double-walled Tank; and¶
1.4.3.2 → → → and, where required, vent Piping; and¶
1.4.3.3 → → → Containment Sumps at the Tank top and under each dispenser (UDC) that meet the requirements of §1.25 of this Part; A dispenser system is considered new when both the dispenser and the equipment needed to connect the dispenser to the underground storage tank system are installed at an UST facility. The equipment necessary to connect the dispenser to the underground storage tank system includes check valves, shear valves, unburred risers or flexible connectors, or other transitional components that are underneath the dispenser and connect the dispenser to the underground piping. The UDC must be Liquid Tight on its sides, bottom, and at any penetration. UDC must allow:

3 ¶
for visual inspection and access to the components in the containment system or be periodically monitored for leaks from the Dispenser System, and¶

Containment Sump Testing

DNREC Has Had Containment Sump Testing Requirements in Place Since 2008

New Federal Requirement:

- Test sumps used for piping interstitial monitoring to ensure they are liquid tight every 3 years.
- Double-walled sumps with periodic interstitial monitoring between the containment sump walls are not required to meet the testing requirement
- Keep records for 3 years

What DNREC would like to change:

- If used for interstitial monitoring require containment sumps to be tested annually.
- All other containment sumps should be tested to see if they are liquid tight every three years.





Part B 1.25.1 Liquid Tight Sump Test Pg. 47

- 1.25 → → **Containment Sump**: Requirements for UST Systems Storing Regulated Substance excluding Consumptive Use Heating Fuel or Hazardous Substance
- 1.25.1 → → All Dispenser, Tank top, transition and any other Containment Sumps of single-wall design shall be Liquid-Product-Tight and shall be tested for Liquid-Product tightness once every thirty-six (36) months, or in accordance with the manufacturers' specifications, or when deemed necessary, by the Department to determine if a threat to human health, safety or the environment exists.

Additional language still needs to be added to require annual tightness testing if sumps contain sensors.

Part B 1.27.3 Sensor Testing Pg. 48

- 1.27.3 → → All sensors installed in a sump for the purpose of detecting a Release from the UST System shall be installed directly on no more than one inch (1") from the bottom at the lowest point of the sump, and/or in accordance with the manufacturer's specifications such that the sensor is capable of detecting any accumulation of Regulated Substance.



Other Changes Related to Federal Reg Change Definition of Liquid Tight Added, Product Tight Deleted Pg. 8 & 11

→ **"Liquid Tight"** means: under dispenser containment and UST top sumps that are impervious to the substance contained, or to be contained, so as to prevent seepage of Regulated Substance from the containment into the environment.

→ **"Product Tight"** means: under dispenser containment and UST top sumps that are impervious to the substance contained, or to be contained, so as to prevent seepage of Regulated Substance from the containment into the environment.



Other Changes Related to Federal Reg Change Definition of Repair and Replace Pg. 10

- **"Repair"** means: to restore to proper operating condition a tank, pipe, pipe, spill prevention equipment, corrosion protection equipment, release detection equipment or other UST System component that has caused a release of product from the UST System or has failed to function properly, or replace an UST System component that is not functioning per manufacturer's specifications or Department requirements.
- **"Replaced"** means:
 - (a) For a tank — to remove a tank and install another tank.
 - (b) For fiberglass reinforced piping — to remove 50 percent or more of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies independently to each piping run.
 - (c) For flexible plastic piping — if any of the piping is damaged, all of the piping must be removed.

DNRC-TMS still working on definition of Replaced to ensure current practice is consistent with EPA definition.



Part A Reference Organizations and Standards (Pages 14-17)

Reference Standards were added based on changes to the federal regulations to comply with technical requirements or because they were newly cited by DNREC.

- Examples:
- 3.3.5.5 RP 1200, *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities*
 - 3.3.5.4 RP 1000 *Marina Fueling Facility Systems (2014 Edition)*

Still need to list specific editions of the documents.



Initial Draft Of Changes to UST Regulations

- Changes not driven by Federal Rule Changes
- Additional Rules for USTs located at Marinas
- Consistency with ITRC Regarding NAPL Definitions
- Sustainable Remediation Techniques
- Use of Institutional Controls



Part A 2.0 Marina UST System, Marina Fueling Facility Pg. 7

→ "Marina Underground Storage Tank System" means any UST System and its associated Ancillary Equipment and containment system, if any, maintained and operated at a Marina Fueling Facility.

→ "Marina Fueling Facility" means any land-based fueling facility that dispenses fuel over, adjacent to, or in close proximity to the water for the purpose of fueling watercraft.



Additional Requirements for USTs at Marinas

- Definitions of Marina UST, Marina Fueling Facility
- Referenced PEIRP 1000
- Require upgrade to marine grade equipment at new installation and retrofit.



Part B 1.33 Additional Requirement for USTs at Marina Fueling Facilities Pg. 54

1.33. → Additional Requirements for UST Systems at Marina Fueling Facilities .¶

1.33.1. → Marina UST Systems shall comply with all applicable requirements of these Regulations. ¶

1.33.2. → Marina UST Systems installed or Retrofitted after the most recent date¶ following promulgation of these Regulations shall comply with the following requirements: ¶

1.33.2.1. → Marina UST Systems shall be installed and Retrofitted in accordance with the most recent edition of PEIRP1000 or other method approved in writing by the Department no less than thirty (30) days prior to installation. ¶

1.33.2.2. → The dispenser(s) shall be located where it is least likely to be impacted by watercraft. ¶

1.33.2.3. → All Ancillary Equipment, Piping, conduit, dispenser, pumps, hoses, valves, nozzles, and all other parts of the Marina UST System that are in direct contact with or are above the water shall be constructed of Marine grade material. ¶



Sustainable Remediation Techniques



- Referenced ASTM and ITRC Guidance
- Encouraged but not required
- Incorporated into Remedial Action Workplans



Institutional Controls

- Acknowledge that institutional controls can be incorporated into a remedial action workplan to manage the risk from exposure to hazardous substances.
 - Deed Notices
 - GMZ's
 - Environmental Covenants
- When required ensure the institutional control has been put in place before issuing a No Further Action Letter



Part E 5.2.11 Sustainable Remediation Pg. 181

181¶
 5.2.11 → → → The RAWP may include green sustainable remediation practices, processes, and technologies, in accordance with ASTM (ASTM International) E2893-16 Standard Guide for Greener Cleanup... ITRC (Interstate Technology & Regulatory Council), Green and Sustainable Remediation: State of the Science and Practice - GSR-1 and ITRC (Interstate Technology & Regulatory Council), Green and Sustainable Remediation: A Practical Framework - GSR-2.¶



Part E 5.2.12 Institutional Controls Pg. 181

5.2.12 → → → The RAWP may include the use of Institutional Controls to reduce the potential for exposure to hazardous substances. Institutional Controls may include land use restrictions, activity restrictions, groundwater use restrictions, operations and maintenance requirements, or other Institutional Controls.¶

Part E 6.1.1.4 Institutional Controls Pg. 182

6.1.1 → → After all Corrective Actions are complete and cleanup goals have been achieved, the Responsible Parties shall submit a written request to the Department for no further action (NFA). The request for no further action shall include but is not limited to the following documentation: ¶

6.1.1.1 → → → A demonstration that the site does not threaten human health, safety and the environment based on current land use of the site and surrounding area; and ¶

6.1.1.2 → → → LNAPL does not exist or has been addressed in accordance with §3.3 of this Part; and ¶

6.1.1.3 → → → Contaminant levels have been reduced to levels at or below the cleanup goals approved by the Department; and, ¶

6.1.1.4 → → → Institutional Controls as required by the Department, including but not limited to the replacement of an Environmental Covenant (EC) on a facility, as provided for in 7 Del. C., §§7907-7920, the Uniform Environmental Covenants Act (UECA) have been established. ¶

Part A Changes to Definitions

- "Mobile LNAPL" means LNAPL that is hydraulically connected in the pore space, exceeds residual saturation, and had the potential to migrate both vertically and laterally. "Formerly Free NAPL"

"Migrating LNAPL" means mobile LNAPL that is moving laterally and vertically in the environment under prevailing hydraulic conditions. (The result of the LNAPL movement is a net mass flux from one point to another. Not all Mobile LNAPL is migrating, but all Migrating LNAPL must be Mobile LNAPL. "Formerly Mobile NAPL"

**Consistent with ITRC Definitions.
Potential to move verses actual moving.**

Part A Changes to Definitions

- "Conceptual Site Model (CSM)" means a comprehensive graphical model and written summary describing what is known or hypothesized about environmental contamination at a site and the relationship among key site information that are pertinent to decision-making. A CSM is a model or representation that evolves over the life cycle of site investigation and cleanup efforts and provides a platform for evaluating the data gaps and related uncertainty associated with site history and operations; geology, hydrogeology and hydrology; contaminant sources, release mechanisms and fate and transport; potential receptors and exposure pathways.

Consistent with ITRC Definition.

Promulgation Schedule

Wednesday April 19th, 2017	Share 2nd draft of changes with USTAC and EPA
Thursday May 4th, 2017	Conduct USTAC3 Meeting
Thursday July 1, 2017	Make any necessary changes to 3rd draft and share with USTAC and EPA
July 1, through September 15, 2017	EPA Review
Thursday November 9, 2017	Share Draft 4 with USTAC and EPA
Wednesday November 15, 2017	Conduct USTAC4 Meeting
Tuesday and Thursday January 16 and 18, 2018	Conduct Public Workshops
Thursday, March 15, 2018	Proposed Regulations to State Register



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Opportunities for public participation and public comments.

Next Meeting Date Thursday May 4th, 2017
10AM-12PM



Written Comments on the Draft Regulations Can be sent to

DNREC_USTRegulations@state.de.us