SOLID & HAZARDOUS WASTE DIVISION
STORAGE TANK PROGRAM
GUIDANCE DOCUMENT #10

SUBJECT: **STORAGE TANK PROGRAM (STP) RESPONSIBILITIES DURING UNDERGROUND STORAGE TANK (UST) OR ABOVEGROUND STORAGE TANK (AST) REMOVALS**

SCOPE: This document provides guidance for storage tank personnel on site during tank removals.

INTRODUCTION: Currently, tanks must be decommissioned in accordance with both Water Quality Rules and Regulations Chapter 17 (Chapter 17) and Solid Waste Rules and Regulations, Chapter 8 (SWRR Chapter 8). Permanently closing a tank will be regulated by the STP in accordance with Chapter 17 (Part G). The term, "decommissioned," in SWRR Chapter 8 is equivalent to the term, "permanent closure," in Chapter 17. Any tank requiring decommissioning must be cleaned in accordance with Chapter 17, Part G, Section 31(b), Permanent Closure. Further, decommissioning **must** be done by an individual or company that has obtained a permit from the Solid Waste Program (SWP) for mobile decommissioning (on-site decommissioning or in-place closure), fixed-facility decommissioning in accordance with SWRR Chapter 8 or applicable regulations for an out of state facility, or a one-time authorization issued by the SWP. A permit from the SWP is not required to remove product from petroleum storage tanks, "inert" tanks for safety purposes, or transport tanks to a decommissioning facility.

The SWP permits fixed and mobile facilities that perform tank decommissioning. A petroleum storage tank is a regulated solid waste and must be decommissioned by a SWP-permitted tank decommissioner if:

- The owner intends to use the tank for some other purpose (e.g., regulated storage tank to be reused as a stock watering tank),
- The owner transfers ownership of the tank to another party for <u>any</u> use, or
- The owner desires to dispose of the tank.

An owner is not required to decommission a tank if the tank will be reused for the <u>same purpose</u> (i.e., to store the same substance). All tanks to be reused must be emptied prior to moving. All tanks to be reused to store a substance different from the original substance must be decommissioned. If an UST is reused for underground storage, the original tank manufacturer must recertify the reused tank as new. USTs cannot be reused for regulated aboveground storage. Only double-walled USTs may be reused for underground regulated substance storage. All tanks to be reused must be transported and installed in accordance with applicable local, state, and federal regulations.

After a metal tank is properly decommissioned, it is considered scrap metal (or may be reused for some other purpose) and is no longer a solid waste. Reuse of a tank for other purposes (water storage, animal feed storage, culverts, etc.) is not recommended by the DEQ and is at the owner's risk. Fiberglass-reinforced plastic (FRP) tanks are considered

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wastes and must be disposed of at a landfill. Tanks cannot be used for backfill in the excavation created during tank removal.

GUIDELINES:

1. When the STP district office is notified that a tank will be removed, STP personnel will inquire as to who will remove the tank and how the tank will be decommissioned. The tank owner will be sent the "Regulatory Requirements and Decommissioning Information Sheet" (attached) and the list of SWP-permitted tank decommissioning facilities. The current decommissioning facilities list will be obtained by STP personnel from the SWP website. In accordance with SWRR Chapter 8, if the tank is to be decommissioned in Wyoming, the STP requires that a SWP-permitted tank decommissioning facility be used. The STP district office will notify, via email, the appropriate SWP district manager that the tank(s) will be removed and where the STP has been told the tank will be taken.

2. The STP personnel on site during tank removal will provide (if present) the tank operator, tank owner, the on-site decommissioner (if used), and the tank removal contractor a copy of the "Regulatory Requirements and Decommissioning Options Information Sheet."

3. A tank can be permanently closed on site, off site, or in place. Permanent closure must be completed in accordance with Chapter 17, Part G, Section 31(b). Section 31(b) requires that the tank be emptied and cleaned by removing all liquids and sludge. SWP permits will require that tank cleaning and closure is done in accordance with API standards listed in Chapter 17.

3.a. On-Site Closure. The tank can be cleaned (decommissioned) on site by a SWP-permitted mobile decommissioning facility. STP personnel on site will observe on-site decommissioning, document the decommissioning, and take photographs. However, STP personnel are not responsible for enforcing SWP Rules and Regulations as they pertain to the decommissioning facility operator. The SWP will be notified if STP personnel observe potential permit violations or improper waste management. STP personnel are not responsible for knowing all possible permit violations for a facility operator. The SWP is responsible for follow up and responding to any potential on-site or fixed decommissioning facility permit violation. The STP inspector will determine when a tank decommissioned on site no longer contains "liquids and accumulated sludges" in accordance with Chapter 17, Section 31(b), and obtain information as to the final disposition of the tank.

3.b. Off-Site Closure. The tank can be cleaned (decommissioned) off site by a SWP-permitted fixed facility or an out-of-state facility. The decommissioning certificate or other documentation received from an out-of-state facility will be evidence to the STP that the tank was cleaned. The STP has no responsibility for off-site facilities.

3.c. In-Place Closure. The tank can be closed in place in accordance with API 1604. Cleaning (decommissioning) must be accomplished by an individual or company

that has obtained a mobile decommissioning permit from the SWP. See 3.a. above as it relates to mobile decommissioning facilities.

4. **Soil Samples.**

4.a. At a known contaminated site, soil samples may be collected by the STP personnel on site during tank removal. Soil sample collection and location are at the discretion of the STP person on site.

4.b. If no contamination is evident or obvious, two samples will be collected from the tank excavation; one from under each end of each tank. Only one sample will be needed for tanks 2000 gallon or less. **STP personnel shall not enter an open excavation**. Additional soil samples may be collected at the discretion of on-site personnel. These samples may include locations at the dispenser islands and along delivery pipe runs. Sample locations and frequency will be determined based on accessibility and other site factors.

4.c. The soil samples shall be sent to an A2LA laboratory. Analyses shall include total petroleum hydrocarbons as gasoline-range organics and as diesel-range organics (TPH-GRO and TPH-DRO); benzene, toluene, ethylbenzene, and xylenes (BTEX); total lead; naphthalene; and total cadmium and total chromium (these last two metals should only be analyzed at used oil sites). The list of constituents that will be analyzed at a contaminated site is at the discretion of the STP personnel on site. See STP Guidance Document #7 for analytical test methods.

5. **Groundwater Samples.** STP personnel on site will use standard sampling protocol for collecting groundwater samples. The groundwater sample will be analyzed for BTEX (report constituents separately). If enough groundwater can be collected to analyze for TPH-GRO and TPH-DRO, those analyses will also be completed. Finally, if enough groundwater can be collected, analyses for naphthalene, total lead, and total cadmium and total chromium (these last two metals should only be analyzed at used oil sites) shall be completed. The groundwater sample(s) will be sent to an A2LA laboratory for analyses. See STP Guidance Document #7 for analytical test methods. Samples shall be filtered at the laboratory for metals analyses.

6. **Sample Labeling and Analytical Methods.** See STP Guidance Document #7 for analytical test methods. Request Chain-of-Custody (COC) forms and sample jars/vials from the laboratory when supplies are running low. Wear appropriate gloves when collecting samples. Vials for groundwater samples will be properly preserved at the laboratory. Be careful when handling these vials and do not rinse any vials or jars before sampling. Indicate carbon range on the COC (TPH-GRO = C5 – C10, TPH-DRO = C10 – C32). Sample jar labels and the COC must be filled out correctly. Use appropriate methods for labeling and shipping samples. Ship samples in a cooler in ice (ice should be in zip lock bags) immediately after collection. If not shipping the samples, contact the laboratory for appropriate preservation techniques.

7. On-site STP personnel may authorize a Work Order to initiate removal and disposal of contaminated soil found during tank removal. Excavation and disposal of

contaminated soil should be done during tank removal if the STP believes the site can be closed after excavation. The authorized Work Order amounts may not be exceeded. The excavation and disposal procedure and forms found in STP Guidance Document #9 shall be used in this event. The STP will not, however, automatically excavate and dispose of soils at all tank removal activities.

7.a. If excavation has been used in an attempt to close the site, a minimum of four soil samples shall be collected; one from each corner of the excavation. At the discretion of on-site STP personnel, additional samples may be taken from the bottom near the center of the excavation. These samples will be used to confirm closing the site.

7.b. If it is obvious that the site cannot be closed after excavation, soil samples should be taken at the visually most contaminated locations to obtain a representation of contamination remaining for future remediation and scoring the site.

8. The STP personnel on site during tank removal will complete the attached Tank Removal Information Form. After evaluation of analytical results from sampling, the STP will issue either a site closure letter or a contaminated site letter to the owner. A contaminated site will be scored and prioritized using the Priority Ranking Worksheet (attached). These forms will be returned to the STP Compliance Section as soon as possible after the tank removal and receipt of analytical data. The STP Compliance Supervisor will be copied on the results letter (clean site or contaminated site) that is sent to the site owner. The results letter will be completed immediately upon receipt of analytical data. This ensures the data are entered into the STP database and reporting to WDEQ and EPA is current and accurate.

9. A contaminated site will be added to an upcoming remediation project based on location and priority number.

10. By permit, Wyoming fixed and on-site decommissioning facilities are required to provide the tank owner with a decommissioning certificate. In accordance with Chapter 17, the tank owner is responsible for documenting that the tank was properly cleaned. The STP will request the tank owner submit the decommissioning certificate to the STP Compliance Section if the tank was decommissioned in Wyoming. If the tank is taken out-of-state for decommissioning, the STP will request the tank owner provide proof of proper cleaning from the out-of-state facility. Receipt of the certificate or other documentation will be included in the STP database.

11. Previously closed or abandoned storage tank system owners must comply with Chapter 17, Section 32, and either remove the storage tank system or permanently close it in place. Owners that permanently close a tank in place must comply with Chapter 17, Section 31(b). In accordance with Chapter 17, Section 31(b), the tank must be emptied and cleaned by removing all liquids and accumulated sludges. The tank must either be removed or filled with an inert solid material. A minimum site assessment must also be performed.

12. The SWP retains responsibility for permitting and inspecting fixed and mobile decommissioning facilities. Fixed facilities can decommission tanks on site if the facility

complies with requirements for mobile facilities and receives a permit authorization amendment from the SWP.

13. Storage tank sludge becomes a waste when it is generated. As soon as the sludge clears the excavation, whether it is inside the tank, in a vac-truck, or some other vessel, the waste stream has been generated and is not regulated under Chapter 17. This waste stream will be handled in accordance with Solid & Hazardous Waste rules.

14. Not all tanks are regulated under Chapter 17. The STP only has authority over tanks regulated under Chapter 17. Tanks not regulated under Chapter 17 will be handled in accordance with Solid & Hazardous Waste rules.

15. Aboveground Petroleum Storage Tanks. Aboveground petroleum storage tanks taken out of service that contained any substance regulated under Subtitle I of the Resource Conservation and Recovery Act, as amended September 23, 1988, including, but not limited to, storage tanks that have held gasoline, diesel fuels, and used or unused motor oils are a regulated solid waste. Tank owners will be given the "Regulatory Requirements and Decommissioning Information Sheet," and the list of SWP-permitted tank decommissioning facilities. The STP district office will notify, via email, the appropriate SWP district manager that an aboveground petroleum storage tank will be removed and where the STP has been advised the tank will be taken, if this information is available.

ATTACHMENTS TO
STP GUIDANCE DOCUMENT #10

- Site Information Form
- Priority Ranking Worksheet
- Regulatory Requirements and Decommissioning Information Sheet

WYOMING STORAGE TANK PROGRAM
TANK REMOVAL INFORMATION

Facility Information

Facility ID: 0-00_____ Facility name: _____

Facility Address:_____

Date tank(s) actually removed:_____/_____/_____ Contaminated site? _____

Tank(s) abandoned in place: _____ (Use tank numbers from the database)

Tank No.	Product	Condition	Leaked? (Y/N)	Source of Release?

Site assessment performed? _____ By: STP_____ Consultant_____

Consultant (Name, Contact): _____

Tank Removal Contractor

Name: _____

Address: _____

Phone: _____

Decommissioning Contractor

Name: _____

Address: _____

Phone: _____

Attachments:

_____Attach this sheet to the site assessment and the approved work plan if a site assessment was performed.

_____Attach tank decommissioning certificate to this form.

_____Attach priority ranking sheet if the site is a contaminated site.

_____Attach chain of custody and sample results for all samples taken.

Send a copy of this form to Cheyenne as soon as the tank abandonment is complete.

Keep the original in the district office until all required attachments are available; then send the entire package to Cheyenne.

Site Diagram on back of form.

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STP CONTAMINATED SITE PRIORITY RANKING WORKSHEET

Facility ID # _____ Scored By _____ Date _____

Facility Name & Location _____ Score _____

Free Product on Surface or Groundwater:	**Point Value:**	**Score:**
Presence unknown, but possible ……	100	_____
Presence unknown, but probable ……	225	_____
Present in any amount ……	350	_____

Concentration in Groundwater:	**Point Value:**	**Score:**
Greater than ten times the MCL for drinking water or the Wyoming DWEL ……	300	_____
Less than ten times or equal to the MCL for drinking water or the Wyoming DWEL ……	100	_____
Double the above two values, as applicable, if present in drinking water wells ……		_____

Potential to Contaminate Groundwater:	**Point Value:**	**Score:**
Unknown, but probable ……	175	_____
Unknown, but possible ……	75	_____

Soil Type:	**Point Value:**	**Score:**
High permeability (course gravel, silty sands, etc.) ……	150	_____
Moderate permeability (loamy sands, silty clays, etc.) ……	75	_____
Low permeability (clays) ……	25	_____

Soil Contamination:	**Point Value:**	**Score:**
Heavily contaminated soils. Fails paint filter test or produces a free product layer when mixed with water and allowed to settle for 10 minutes ……	150	_____
Moderately contaminated soils. Observed greasy feel, strong petroleum odor, black discoloration, or TPH >100 mg/kg ……	80	_____
Slightly contaminated soils. Any visible contamination, weak petroleum odor, or TPH >30 mg/kg ……	40	_____

TOTAL SITE SCORE: _____

Revised March 2015

Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor

John Corra, Director

November 7, 2011

Regulatory requirements and options for decommissioning petroleum storage tanks

This document provides regulatory requirements and options for decommissioning petroleum storage tanks (PSTs), which are regulated as a special solid waste in Wyoming. The objective of decommissioning is to remove *all* liquids and accumulated sludges. Decommissioning is required to *permanently close* a PST in compliance with Chapter 17 of the Wyoming Water Quality Division (WWQD) Rules and Regulations. ***Failure to permanently close a PST may adversely affect the ability to sell the property.***

Owners and/or operators of PSTs are also advised that the use of a PST to store a non-regulated substance is considered a change-in-service. Tanks undergoing a change-in-service must meet the requirements of WWQD Chapter 17, Section 31(c).

The *first* option for decommissioning a PST is to transport it to a facility that is permitted by the WDEQ Solid & Hazardous Waste Division (SHWD) to decommission PSTs. A list of these facilities can be found on the SHWD website. The operators of these facilities will provide written confirmation to both you and the SHWD to document that the PST has been properly decommissioned. In the event that a PST is sent to an out-of-state facility to be decommissioned, the PST owner should determine if the facility is in compliance with applicable local, state and federal requirements and if the facility can provide the documentation necessary to obtain permanent closure status from the SHWD.

The *second* option for decommissioning a PST is to have it decommissioned by a mobile facility operator who is permitted by the SHWD to decommission PSTs. These facilities are also identified on the SHWD website. The operators of these facilities may be able to properly decommission a PST on site if the mobile facility complies with the following location standards:

- The facility must be at least 100 feet from any occupied house, school or hospital unless the owner or board of trustees provides written consent.
- The facility must be at least 100 feet from any public park or recreation area unless the owner provides written consent.
- The facility must be approved by the governing fire marshal.

The operators of these mobile facilities will also provide written confirmation to both the PST owner and the SHWD to document that the PST has been properly decommissioned.

Herschler Building · 122 West 25th Street · Cheyenne, WY 82002 · http://deq.state.wy.us

ADMIN/OUTREACH	ABANDONED MINES	AIR QUALITY	INDUSTRIAL SITING	LAND QUALITY	SOLID & HAZ. WASTE	WATER QUALITY
(307) 777-7758	(307) 777-6145	(307) 777-7391	(307) 777-7369	(307) 777-7756	(307) 777-7752	(307) 777-7781
FAX 777-7682	FAX 777-6462	FAX 777-5616	FAX 777-6937	FAX 777-5864	FAX 777-5973	FAX 777-5973

The *third* option for decommissioning a PST is to apply to the SHWD for a one-time authorization to do it by the PST owner (or someone the owner hires). The WDEQ strongly discourages this option due to the fact that this is an *extremely* dangerous activity. *Written* requests for a one-time authorization to decommission a PST should be forwarded to the SHWD and must contain the following information:

- The date(s) on which decommissioning activities will occur.
- A facility location map and documentation that the facility complies with the location standards identified above for mobile facility operators.
- Documentation that all personnel who will be involved with the decommissioning process have completed at least 40 hours of initial safety training and 8 hours of annual refresher training that complies with the Hazwoper requirements of OSHA 29 CFR 1910.120. Copies of training certificates must be provided.
- A description of how residual product, scale and sludges will be stored, characterized and disposed.
- A written commitment that cleaning and closure procedures will be conducted in accordance with one of the following codes of practice, as allowed by WWQD Chapter 17, Section 31(b):
  Removal and Disposal of Used Underground Petroleum Storage Tanks (American Petroleum Institute Recommended Practice 1604, $45), or
  Interior Lining of Underground Storage Tanks (American Petroleum Institute Recommended Practice 1631, $35), or
  Safe Entry and Cleaning of Petroleum Storage Tanks (American Petroleum Institute Publication 2015, $74)

Copies of these American Petroleum Institute documents may be purchased directly from the API through their web page (www.api.org/cat/) or by calling (702) 682-8375. Copies are also available at the State Library. Applicants are also advised to contact the Wyoming Department of Employment, Worker's Safety & Compensation Division at (307) 777-7786 to determine if the proposed activity is subject to confined space entry regulations. If a request for a one-time authorization to decommission a PST is approved, the SHWD will provide written authorization and a blank certification form that should be used to provide documentation to the SHWD that the PST has been properly decommissioned.

Once a metal PST is properly decommissioned it is considered to be scrap metal and is no longer regulated as a solid waste. Properly decommissioned fiberglass tanks may be disposed of at a landfill. Owners of properly decommissioned PSTs should be advised that the reuse of any PST for the storage of any flammable or combustible liquid is required to comply with Article 79 of the Uniform Fire Code. Reuse of properly decommissioned PSTs for other purposes (water storage, animal feed storage, culvert, etc.) *is not* recommended by the WDEQ and is at the owner's risk.