November 29, 2012

Mark Bradley
1260 SE 46th Ave.
Portland, OR 97215



City of Portland - Clerk's Office
Attn: Susan Parsons
1221 SW 4th Ave., Rm 140
Portland, OR 97204

Re: Request to address City Council

Dear Susan;

Thank you for your time on the phone this morning. My request to address the City Council was confirmed for DEC 12, 2012 at 9:30 a.m. according to our morning conversation.

I am a concerned citizen of Portland, and I work for a local underground storage tank company. The Oregon DEQ says the life expectancy of a single wall heating oil tank is 15-20 years. The routine installation of oil heat systems ended in the mid-1960s, meaning that most of the tanks in Portland's neighborhood are at or beyond three times their lifespan. A leaking oil tank can result in exposures to petroleum and petroleum constituents (Benzene, Naphthalene) which are known to be harmful to human health and the environment. Every year over one thousand leaking residential oil tanks are discovered in Oregon. Most of those tanks are in the city of Portland.

Due to the power of the petroleum lobby, these tanks remain unregulated on the Federal and State levels. I believe that these tanks pose a significant threat to the environmental health of our neighborhoods and inhabitants, and the City of Portland should take the lead in addressing this threat in order to protect the health of our environment, our neighborhoods and our citizens, young and old.

I would appreciate the opportunity to address the council and share the knowledge I have gained in my profession while working in the City of Portland for over 10 years.

Feel free to call me at my office, 503-244-7002 with any questions or changes to the DEC 12 date regarding my request to address the city council.

Thank you,

Mark Bradley

# Answers to Your Heating Oil Tank Questions

dana THOMPSON TANKS & SOIL

*"The most trusted name in residential heating oil tank services"*

**Phone (503) 244-7002**
**www.danatanks.com**
**email: info@danatanks.com**

OR CCB#146791 OR DEQ#19349


## INTRODUCTION

As residential customers continue to store oil in aging underground tanks, we have noticed a dramatic increase in the severity and magnitude of residential heating oil releases. It is also curious to note that we continue to find old tanks which have not leaked. **We urge owners of aging heating oil tanks to address their fuel oil storage and delivery needs sooner, rather than later, for economic and health reasons.**

The risk of vapor exposure has led the Oregon DEQ Heating Oil Tank (H.O.T.) Program to take an increasingly energetic approach to its core mission of protecting human health and the environment. This pamphlet includes information on these changes and addresses the need for more aggressive action on residential heating oil tanks.

Dana Thompson Tanks & Soil has always pursued the cleanup path which provides the best value. The most obvious change in our approach is to recommend removal of the tank and at least some of the impacted soil on each cleanup project where conditions will allow such work to take place, and the relegation of Risk Based Cleanup to a secondary position. This more protective action is consistent with the HOT Program's increased vigilance.

## LEGAL REQUIREMENTS

Active residential heating oil tanks are not regulated by Federal or State law, however Oregon Administrative Rules state:

1. When a tank is abandoned, or before a property is sold, oil tanks must be pumped of remaining oil.
2. It is unlawful to remove the vent pipe until the tank has been properly decommissioned.
3. Any suspected or confirmed leak must be reported to Oregon DEQ within 72 hrs.
4. You must be the homeowner or a licensed DEQ HOT Service Provider to perform work on a HOT.

## LOCATING UNDERGROUND STORAGE TANKS

Urban homes built before the mid-1960s may have been heated by oil in the past. DTT&S will perform a tank search on centrally located properties at **NO CHARGE.** We believe you should never pay a tank contractor for a tank search! If you want assurance that no tank is present on a property, we recommend Geopotential, a geophysical exploration company. Call their utility locate specialist, Eddie Kahl, 503.740.0530.

## HEATING OIL TANK PROGRAM: DECOMMISSION AND CLEANUP CERTIFICATION

The HOT program oversees contractor certification of leaking tank cleanups and includes a Voluntary Registration program for decommissioned tanks where soil samples show no leak has occurred. Certification under the HOT program creates a permanent record on the state level, which was not available for tanks decommissioned prior to 2000.

## TANK DECOMMISSIONING

A properly decommissioned tank has been thoroughly cleaned and completely filled with approved solid, inert material: sand, gravel, crushed rock, perlite, or control density fill material (CDF).

## THINGS TO REMEMBER

- **The life expectancy of underground oil tanks is 15-20 years.**
- **Clean ISA samples do not guarantee the tank is not leaking.**
- **80-85% of our ISA samples identify a leak.**
- **All underground tanks will leak eventually. If a tank hasn't leaked, it will.**
- **Samples showing ≥50ppm must be reported to the Oregon DEQ within 72 hours.**

## INITIAL SITE ASSESSMENT (ISA) SAMPLES

An ISA consists of two samples collected within 6" of each end of the tank, from between 1' and 2' below tank bottom; or from beneath each end of the tank within 1' of the tank bottom. Samples are to be placed in clean jars, chilled to less than 42 degrees F and transported under chain of custody to a qualified laboratory. Soil sample analyses must be performed within 14 days of collection, using method NWTPH-Dx.

**NOTE: Soil samples are not required by law, but are required for certification under Oregon DEQ's Voluntary Heating Oil Tank Registration Program. To use clean ISA sample results for voluntary registration and certification, decommissioning must take place within 90 days of collection.**

## CLEANUP OPTIONS

NOTE: Cleanup certification requires the heating oil tank be properly decommissioned, thus removing the source of contamination.

### EXCAVATION

The Oregon DEQ has become far more protective of human health. This has changed the cost:value calculus. We strongly recommend removal of the tank and some contaminated soil whenever possible. The advantages to tank removal and excavation include:

**Provide a More Accurate Representation:** Samples collected from outside the tank may not reveal the true magnitude of the release.
**Remove a Source of Petroleum:** Generally, the leaking tank is considered the source; but diesel saturated soil can be a source of leaching as well.
**Remove or Reduce Risk Assessment Requirements:** When we remove impacted soil we are more likely to avoid vapor and groundwater risk assessment costs.
**Protect Groundwater:** When groundwater is present it is best to remove the most heavily impacted soil.
**Protect the Health of Occupants:** If samples are not representative and the risks are not identified and explored, the health of the occupants is not protected.
**Protect the Health of Neighbors:** The same can be said for occupants of a neighboring property
**Eliminate Contingent Liability:** If site conditions are not fully revealed, the true conditions may create problems at a later date. If additional work is required, the responsible party may be held liable.

### OREGON DEQ CLEANUP CLASSIFICATIONS

**1. Soil Matrix Cleanup (SMC)** is based on the DEQ's scoring method which applies a point value to site specific conditions. Most homes in NW Oregon are Level II SMC sites. When diesel concentrations at a Level II site are less than 500 ppm TPH the project meets cleanup requirements.

**2. Risk Based Decision Making (RBDM)**
In 2000, the OR DEQ began allowing RBDM cleanup on residential sites. RBDM cleanup allows impacted soil above SMC levels to remain in place if diesel and constituent values are at levels deemed to be safe.

All HOT cleanups must address revised vapor thresholds for naphthalene and ethylbenzene, thus preventing large numbers of tank cleanup projects from being completed without excavation of soil. On projects where naphthalene impacted soil cannot be removed, cleanup rules require sub-slab vapor and/or soil gas sampling and vapor intrusion modeling. This work should involve a third party consultant to provide the highest level of credibility and eliminate contingent liability. This approach provides a much greater value with little or no additional cost. Refer to our essay, "2009, The New Paradigm" at www.danatanks.com.

**3. Generic Remedy (GR)**
The GR is a simplified risk based cleanup with two alternatives. Alternative 1, where diesel is present at less than 2,500 ppm, has not been affected by the new vapor screening levels. Alternative 2, (less than 10,000 ppm diesel), requires analysis for BTEX constituents and naphthalene. The new screening levels have reduced the use of the GR Alternative 2 because in many cases the presence of naphthalene in soil with diesel concentrations below 10,000 ppm leads to the excavation and removal of the tank and soil.

### GROUNDWATER

The discovery of groundwater in contact with petroleum impacted soil must be reported to the OR DEQ.

Western Oregon has many areas where near surface groundwater may be encountered. In urban or suburban residential areas, soil contamination will drive cleanup activities, and a costly groundwater risk assessment may also be required. In rural areas, where domestic water wells are present, more stringent soil cleanup requirements will apply. As much impacted soil as possible must be removed, and if any petroleum impacted soil remains, groundwater risk assessment still may be necessary.

**When water is encountered during initial site assessment soil sampling, it is not necessarily due to a groundwater issue.** Often after a tank is installed, soil beneath and around a tank may settle or shift to create a void between the tank and soil where water can collect. Also, due to a tank's proximity to a home's roof and yard drainage systems, soil around a tank can be saturated to a point where any hole created will collect water. It is not uncommon to discover perched or trapped water when initial soil samples are collected, or to have water enter a tank after it has been thoroughly cleaned. This is not necessarily a sign that a groundwater issue exists.

### ENVIRONMENTAL CONTRACTS

Environmental cleanup contracts must allow for changes in the scope of work, as one never knows what conditions might be revealed in the course of a project. Any contractor who sets a "not to exceed" price must be willing either to accept responsibility for a client's problem, or falsify data to achieve the desired outcome. It is most important to take care in the selection of a contractor. Find a contractor with a reputation for honesty, integrity and professionalism. Remember, the lowest price is not the final price, and is not necessarily the best value.

### UNDERSTANDING LABORATORY REPORTS

Soil sample lab data is presented in columns for Field ID, Lab ID, diesel results, heavy oil results and surrogate recovery. The Field ID will often offer information about the location and depth of a sample. Diesel and heavy oil results are expressed in mg/kg or parts per million (ppm). The surrogate recovery column contains lab quality control information only. A BTEX analysis identifies concentrations of benzene, toluene, ethybenzene and xylenes. A PAH analysis identifies concentrations of a number of polynucleic aromatic hydrocarbons including naphthalene, which is often presented separately. The chart on the back cover shows the action thresholds for diesel and constituents.

| If laboratory results show | Then |
|---|---|
| ND (non-detect) diesel & heavy oil | No leak is detected and no action required |
| <50 ppm total diesel & heavy oil | Tank is leaking but report of leak not required |
| > 50 ppm total diesel & heavy oil | The release must be reported to Oregon DEQ |
| > 50 ppm but < 500 ppm | May already qualify for Level II Soil Matrix Cleanup |
| > 500 ppm | Some form of cleanup is required |
| < 20,000 ppm | May qualify for Risk Based cleanup without excavation |
| > 20,000 ppm | Will likely require excavation |
| > 0.0093 ppm benzene<br>> 0.16 ppm ethylbenzene<br>> 0.087 ppm naphthalene | "Leaching to Groundwater" exposure pathway must be explored |
| > 0.08 ppm benzene<br>> 0.82 ppm ethylbenzene<br>> 5.4 ppm naphthalene | The "Vapor Intrusion to Indoor/Outdoor Air" exposure pathway must be explored |

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Request of Mark Bradley to address Council regarding underground oil storage tanks (Communication)

DEC 12 2012

PLACED ON FILE

Filed DEC 07 2012

**LaVonne Griffin-Valade**
**Auditor of the City of Portland**

By _____

| COMMISSIONERS VOTED AS FOLLOWS: | | |
|---|---|---|
| | YEAS | NAYS |
| 1. Fritz | | |
| 2. Fish | | |
| 3. Saltzman | | |
| 4. Leonard | | |
| Adams | | |