



Department of Environmental Quality

Heating Oil Tank Closures In Oregon: Status And Process



March 20th, 2018



Agenda

- **Accessing DEQ Records and Databases**
- **Basic Decommissioning and Cleanup Procedures**
- **Contractor Licensing Requirements and Expectations**
- **Program changes and plans for 2018**
- **Your Questions**





How many are there in Oregon?

Over **100,000** homes with active or former underground heating oil tanks

Estimated from 1960 census data

So far: **39,830** leaks reported (**34,177** cleanups)

5,653 open cleanup sites

10,278 clean closures

Total: **50,108** identified (1987 thru 2017)



Downtown Salem

black DOT =
HOT Site



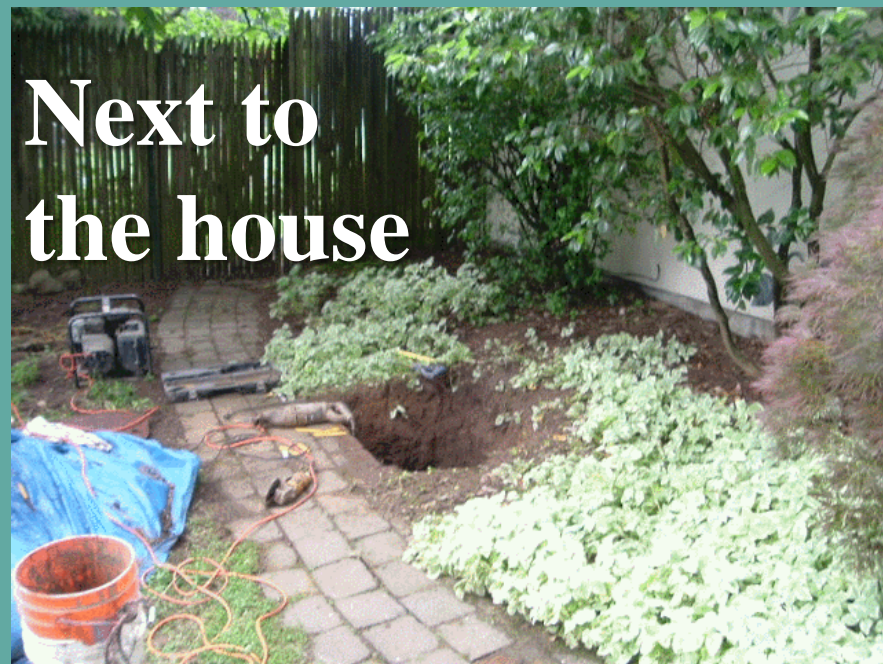


How do I find heating oil tank information and location?



Driveway

Under basement



Next to the house

Right-of-way



When Tank Use Ends

Oregon law (ORS 466.878) requires you to pump out all heating oil from your abandoned (that is, unused*) underground heating oil tank when:

- You stop using oil as your heating source; or
- You have replaced the tank with a new one; or
- When you sell your home or business.

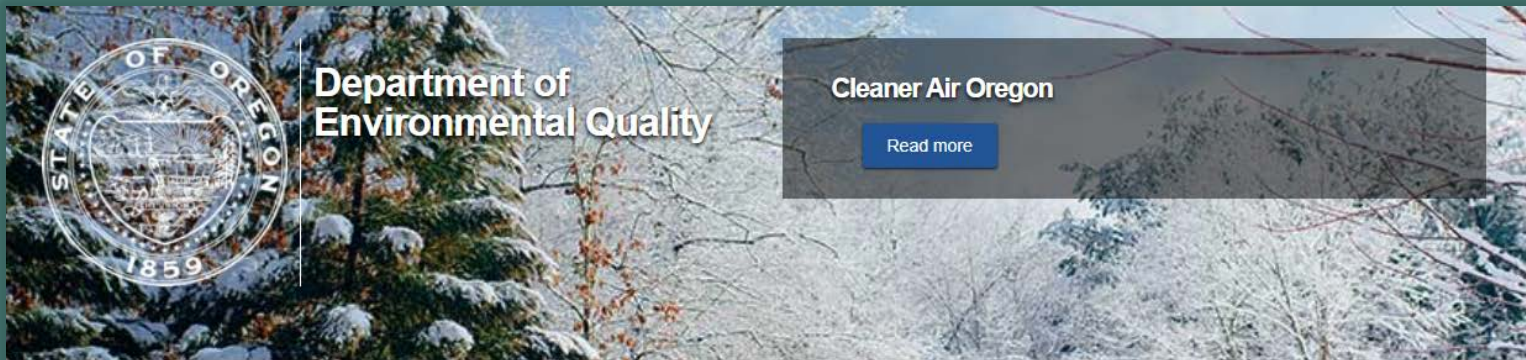
This information does NOT apply to heating oil tanks that are still in active use with an oil furnace.



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Database Demonstration

Go to DEQ's homepage: <http://www.oregon.gov/DEQ>



DEQ's mission is to be a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.



Air and Water

- Industrial Stormwater Permits
- Air Quality Today (AQI)
- Air Quality Permitting and Licensing Information
- Water Quality Permit Applications and Forms
- Recycling Markets



Hazards and Cleanup

- Asbestos Information
- File a Pollution Complaint
- Hazardous Waste
- Environmental Cleanup Site Information Database
- Leaking Underground Storage Tanks



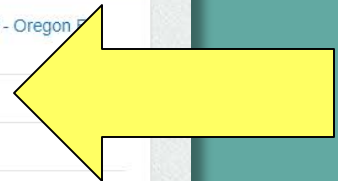
Vehicle Inspection

- Portland Area Station Information
- Medford Area Station Information
- Testing Methods
- Vehicle Inspection Boundary Lookup
- Prepare for the Test



Residential

- Recycle Electronics - Oregon Cycles
- Heating Oil Tanks
- Wood Stoves
- Outdoor Burning in Oregon
- Onsite Wastewater Management (Septic Systems)



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Heating Oil Tanks

- Tanks Home
- Online Petroleum Release Reporting
- Above Ground Storage Tanks
- ☐ Heating Oil Tanks
 - ▶ Heating Oil Tanks
 - Forms
 - Homeowners And Realtors
 - Buying Or Selling A Home With A Heating Oil Tank
 - Frequently Asked Questions
 - About Decommissioning, Cleanup Costs And Service Providers

General program information

The HOT Program handles issues related to:

- Tanks storing fuel oil (typically Number 1 and 2 diesel oil) to heat buildings for human habitation.
- Requirements for the voluntary decommissioning of HOTS.
- Reporting releases from HOTS and the cleanup of soil and groundwater contamination.
- Rules for contractors working on HOTS and the cleanup of soil contamination.

Heating Oil Tank Databases

[Search HOT Clean-up Sites](#) - a leak was discovered

[Search HOT Clean Decommissioning Sites](#) - no leak discovered

This spreadsheet lists properties with former heating oil tanks that have a registered

Contact us

Heating Oil Tanks Help
Phone: 503-229-6177
Toll-Free: 800-742-7373

HOT Decommissioning Cleanup Laws

Oregon Revised

- Sections 465.200 - 465.205
- 465.900
- ORS Chapter 465



Heating Oil Tank Clean Decommissioning List (01/12/18)



HOT ID	Street Number	Street Quadrant	Street Name	Street Type	City	Zip	y	Decommission Type
35376	0		Red Clover	Rd	Black Butte Ranch	97759	UTES	Removed
6301	1		Port	Way	Astoria	97103	OP	Removed
6626	2	NW	Edgewood		Corvallis	97330	ON	Removed
20433	3	SW	Tanglewood	Dr	Lake Oswego	97035	AMAS	In-Place
16644	4	NE	Russet	St	Portland	97211	NOM	In-Place
3360	5		South Co	Rd	Malheur	97534	ON	Removed

Leaking Underground Storage Tank Cleanup Site Database

For information on how to use this page please refer to the [Database Instructions](#). A copy of the entire database can be downloaded from the [UST Cleanup Site Database](#).

Lookup Information from DEQ's LUST Cleanup Site Database

LUST Number County

Year Region

Site Name

Address

City Zip

Code:

- DEQ Cleanup File Open
- Unregulated Heating Oil Tank (HOT)
- Unregulated Tank (Non HOT)
- Regulated Tank (UST Facility)

UST Facility Number

Lookup

Clear



Decommissioning/Cleanup Activities





Types of Cleanup

1. Soil Matrix 2. Generic Remedy 3. Risk-Based

A large yellow arrow points from left to right across the lower half of the slide. Inside the arrow, the text 'Increased Risk and Expense' is written in a red, sans-serif font.

Increased Risk and Expense



If There Is a Leak

DEQ 340-177-0055:

- Responsible person must take **IMMEDIATE** action to prevent any further release of heating oil into the environment
- Remove as much of the product as possible from the **HOT** to prevent further release to the environment. (Pump out the tank)
- Within 72 hours of a confirmed release the Department must be notified.

ORS 105.464:

- Disclosure statement to potential buyers regarding heating oil tank and contamination on property.



DEQ Approval Process

- Service provider submits closure report and certification. Contractor fee and DEQ processing fee. Usually DEQ fee built into Contractor fee.
- Site Closure Reports are required to be submitted within 60 days of completing work, though this often takes much longer.
- Once closure report and filing fee are received by the DEQ Business Office, the review goal is 2-4 weeks for a report with NO ISSUES. – Property Transactions receive priority review.
- DEQ may reject report if it doesn't meet rules, which can result in significant delays.



2017 in review

- 714 Clean Decommissions
- 1390 New Releases Reported
- 1633 Cleanups Completed

**HOT Staff receive approximately 600
calls/emails per month!**





Old Closure Documents

- **Closure letters are not a guarantee.**
- **Old certificates of decommissioning that don't include a report are not sufficient**
- **Cleanup standards changed in 2009.**
- **May want to sample closed sites to verify results, which could uncover new risks**
- **Possible reopening of closed sites if conditions don't match reports.**



Health Issues Associated with HOT Contaminants



- Same as Diesel Fuel
- Benzene - Carcinogen
- Naphthalene -Carcinogen
- Ethylbenzene - Carcinogen

Environmental Impact of HOT Contaminants

- Indoor Air
- Soil
- Groundwater
- Surface Water





Cleanup Standards

- EPA Reclassification to Carcinogens – October 2008
- Risk Based Concentrations (RBCs) for these contaminants of concern have decreased dramatically.

Soil (mg/kg)	July 2007 RBC	October 2009 RBC	Percent Difference
<i>Volatilization to Indoor Air</i>			
Ethylbenzene	No Previous RBC	0.82 ppm	Not Applicable
Naphthalene	290 ppm	6.4 ppm	~ 98 %
<i>Leaching to Groundwater</i>			
Ethylbenzene	160 ppb	0.16 ppb	~ 99 %
Naphthalene	3.8 ppb	0.087 ppb	~ 98 %



Potential Problems with In-Place Decommissioning





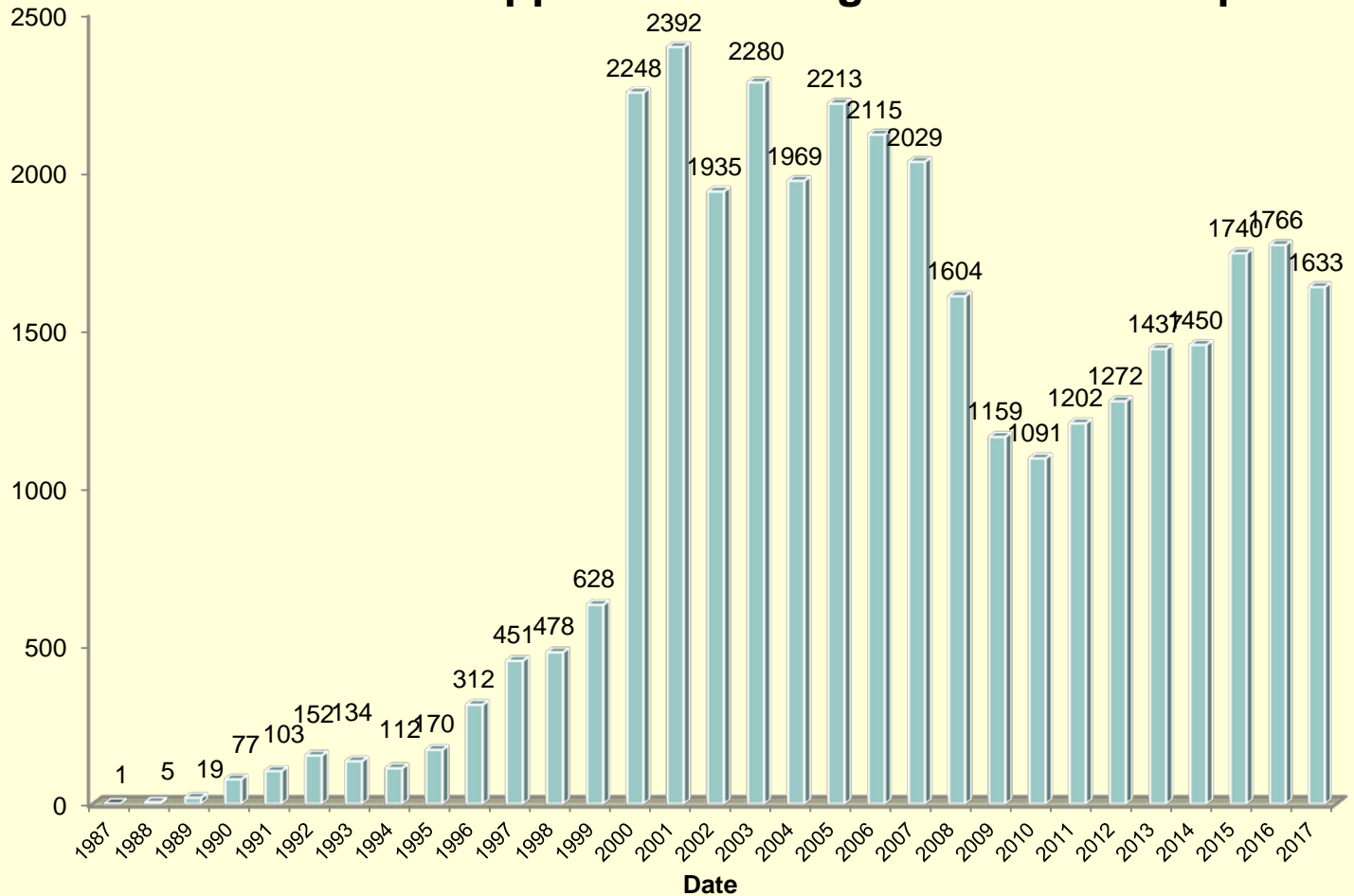
Invalid/Inadequate HOT Certifications

- Decommission Inc
- National Technical Systems (NTS)
- REA Tech, All Valley & Genesis
- SML
- UST Environmental
- Willamette Environmental





Number of Approved Heating Oil Tank Cleanups



1987

2000

2017



Program Changes and Plans

- Returning to 4 program staff
- Restoring Outreach Work
- Restoring Audit Work
- Budget planning for 2019-2021
- Rule update in 2019?



Project Costs 2017



Cost	Clean Decommission	Cleanups
<\$1000	103	18
\$1001 - \$2000	242	124
\$2001 - \$5000	68	553
\$5001 - \$10,000	12	270
\$10,001 - \$30,000	1	61
>\$30,000	0	7
Max	\$19,000	\$204,000 *

* Max cost by type:
 Risk Based: \$204,000
 Soil Matrix: \$57,693
 Gen Rem: \$17,180



Common concerns

- Scope of work proposed is outrageous (blank check, padded)
- Timeliness of contractor project reports
- Need to provide quicker DEQ approvals on property transactions
- Suspect contractors report false detections to get more work
- Soil testing not at proscribed locations; DEQ has no way to know
- Soil testing at proscribed locations (2) misses contamination
- Contamination and tanks left in place are unmanaged; cause construction problems in future



Department of Environmental Quality

Northwest Region Office 503-229-5696

Email us at: hotinfo@deq.state.or.us

HOT Program contacts :

- Mike Kortenhof, HOT Program Manager
- Ash Desmond, Cleanup Project Manager
- Ingrid Gaffney, Duty Officer
- Corin Salnave, Duty Officer and Office Support

Write or visit us at:

Oregon DEQ - Northwest Region - Heating Oil Tank Program
700 NE Multnomah St, Ste 600, Portland, Oregon 97232

People with hearing impairments may call DEQ's TTY at 1-800-735-2900.



DEQ Website Links

- **Leaking Underground Storage Tank (LUST) and Heating Oil Tank (HOT) information:**

<http://www.deq.state.or.us/lq/tanks/lust/LustPublicLookup.asp>

- **Clean Decommissioning Sites List:**

<http://www.oregon.gov/deq/FilterDocs/HOTCleanDec.xlsx>

- **Heating Oil Tank website:**

<http://www.oregon.gov/deq/tanks/Pages/hot.aspx>

