



# Fuel for Thought

**Recommendations to reduce the incidence and severity of accidental releases (spills and leaks) of home heating oil.**

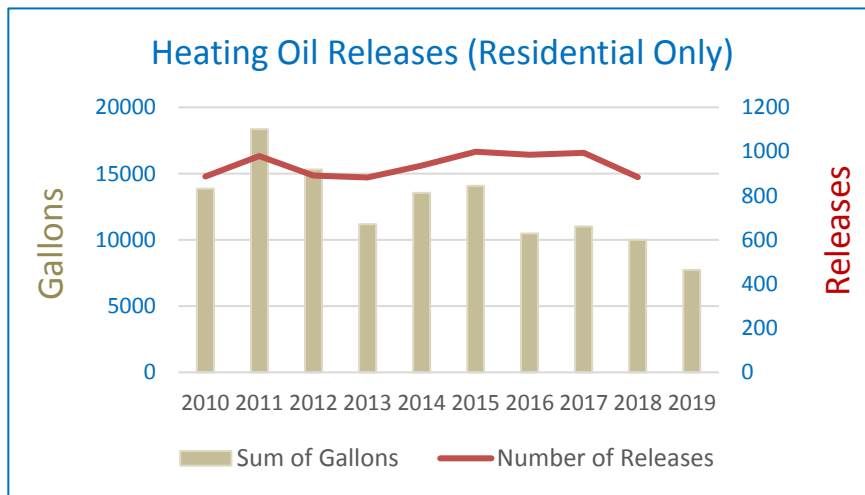
**A Special Report of the Council on Environmental Quality**

**December 16, 2019**

The Council supports and promotes the use of clean energy for all heating and cooling needs, transportation, etc. However, the reality is Connecticut residents use a variety of fuels and electricity to heat their residences and/or for domestic hot water. Home heating oil is readily available in a competitive market, is available to almost all customers, has a relatively high energy content<sup>1</sup>, is currently less expensive than heating with electricity, and is convenient. Being a fossil fuel, like natural gas and propane, the combustion of heating oil contributes to air pollution, global warming, and climate change.

Home heating oil is also referred to as “fuel oil”, or “No. 2 fuel oil” or “heating oil” (which is the term that will be used in this report). A release of heating oil has the potential to harm wildlife, and pollute soil, surface waters, and/or groundwater. Contamination of groundwater can result in poor drinking water quality, loss of a water supply, high cleanup costs, high costs for alternative water supplies, and potential health problems. The cleanup costs can be formidable for the property owner on whose property a release of heating oil occurs. This report describes the extent of the problem and offers suggestions to address it.

**In Connecticut, of 11,400 releases of heating oil, over 8,900 (78%) were reported at private residences (Jan. 2010 – Sept. 2019).<sup>2</sup>**



**TERMS:**

The term “private” is used to distinguish individual homes, and rentals with fewer than five units, from larger commercial residential apartment buildings.

A “spill” is described as a “release”.

No. 2 fuel oil is the most common grade of heating oil used at “private” residences.

On average, there have been approximately 940 reported releases of heating oil per year

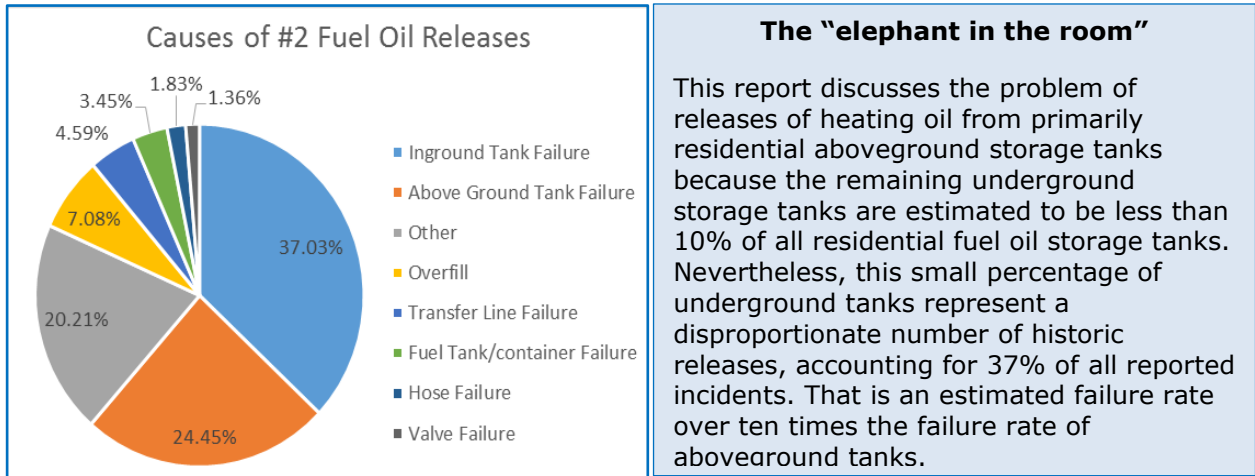
at residences with a total annual average of approximately 13,100 reported gallons released over the last nine complete years (2010-2018). Records from Connecticut’s Department of Energy and Environmental Protection (DEEP) indicate that an average of approximately 460 reported releases each year, or roughly fifty percent (50%), have an unknown volume. Consequently, the actual amount of heating oil released over the last nine complete years (2010-2018) is significantly more than the quantifiable total of approximately 118,000 gallons.

<sup>1</sup> The energy content for home heating oil is approximately 139,600 BTU per gallon. This compares with 91,330 for a gallon of liquid propane (LP) and 135,000 for a gallon of kerosene.

<sup>2</sup> CT DEEP, Worksheet: No.2 Fuel Oil Data Summary 10-15 Update. (Data for 2019 includes January 2019 to September 2019).

**From 2010 to 2019, approximately sixty-five percent (65%) of heating oil releases at private, non-commercial properties were caused by failure of the containment vessel.**

Failures occurred in both aboveground and underground tanks (left chart). The most common cause of failure of the containment vessel is corrosion—the deterioration of the tank due to reaction with its environment.

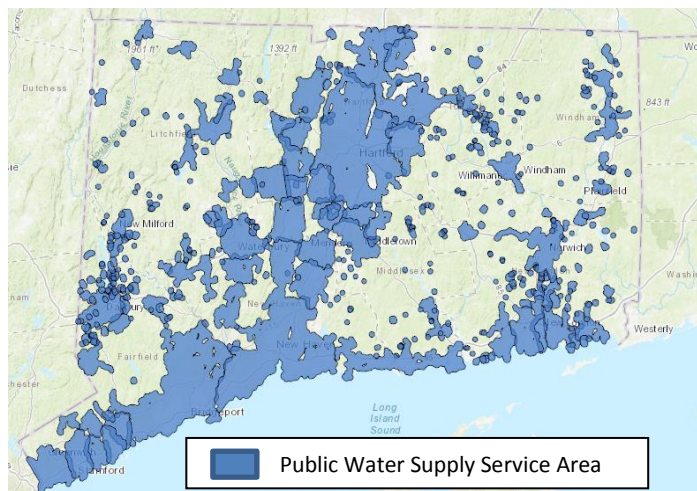


Eighty-two percent (82%) of all “known” reported releases of heating oil had a volume of twenty-five gallons or less; eleven percent (11%) were between twenty-six and one hundred gallons; and seven percent (7%) were greater than one hundred gallons.<sup>3</sup>

**Environmental and Health Risks of Releases**

**One million residents depend on private or public wells for clean drinking water.**

Groundwater in Connecticut can be effected by chemical contamination from recent or historic releases involving pesticides, industrial chemicals, petroleum products including heating oil, landfills and other sources.



While any release of heating oil to the environment is bad, its impact on a drinking water supply is a grave concern to the effected residents and public health agencies. Groundwater contamination may present a health risk to the roughly 820,000 residents who use private wells as a source of water for drinking, bathing, or cooking.

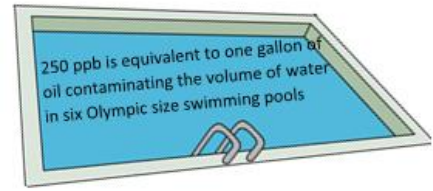
Additionally, there are four hundred and thirty-five “community water systems” that rely on groundwater sources for their water supply. These systems serve approximately 270,000 residents.

The area in green in Connecticut (left image) represents areas that are not served by public water systems. It is estimated that there are approximately 322,600 private residential wells in Connecticut that serve about twenty-three percent (23%) of the State’s population.<sup>4</sup>

<sup>3</sup> CT DEEP, Worksheet: No.2 Fuel Oil Data Summary 10-15 Update. (Jan. 2010-Sept. 2019).

<sup>4</sup> CT Department of Public Health, Private Wells; <https://portal.ct.gov/dph/Environmental-Health/Private-Well-Water-Program/Private-Wells>.

The Connecticut Department of Public Health (CT DPH) establishes drinking water “action levels” that are protective of public health and provides guidance to local health departments and citizens when evaluating the potability of water from private wells. The “action level” for total petroleum hydrocarbons (TPH) is 250 µg/L (micrograms per liter, which is equivalent to 250 parts per billion).<sup>5</sup>

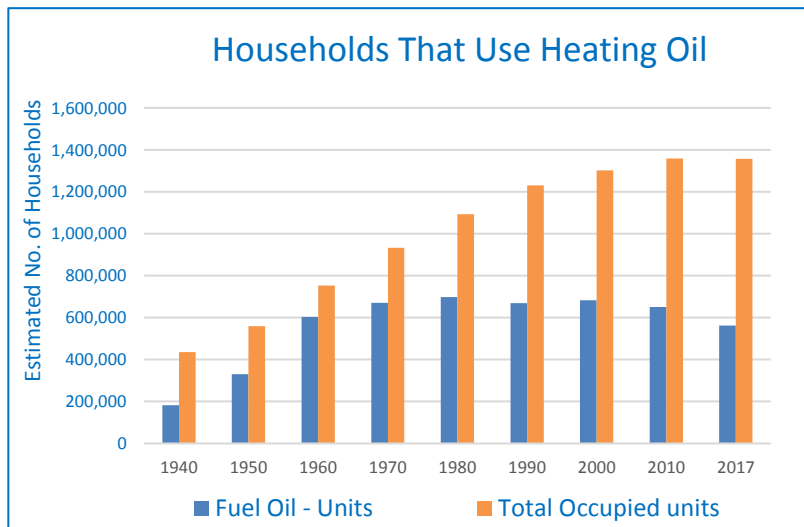


Exposure to water contaminated with heating oil poses a risk to human health. People can be exposed to contaminants in water by drinking or cooking with it, bathing or showering in it, or breathing contaminants that can evaporate from the water. The potential for health effects depends on the length of time of the exposure, the amount and toxicity of the chemical, and an individual's sensitivity to the chemical. In addition, vapors/odors from heating oil can be very unpleasant. Symptoms from exposure to high levels of heating oil vapors could include headaches; nausea; dizziness; and irritation of the eyes, nose, and throat after breathing heating oil vapors. Skin contact may also cause a mild irritation.<sup>6</sup>

## How Big Is the Potential Problem?

### Residential Home Heating Oil Use

It is estimated that in 2017, approximately forty-one percent (41%) of Connecticut’s 1.3 million households used heating oil or other petroleum products as the primary energy source for heating; that’s over 560,000 households.<sup>7</sup>



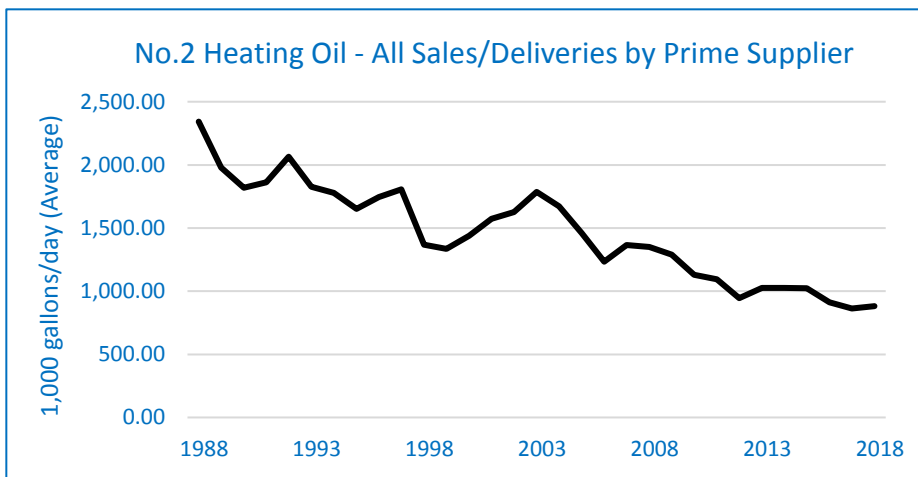
Connecticut Heating Sources (2017)	
Occupied Housing Units	1,356,762
Heating Source	% of Housing Units
Fuel Oil	41.40%
Utility Gas	35.20%
Electricity	16.20%
Bottled, Tank, or LP	4.10%
Wood	1.80%
Other	0.80%
No Fuel	0.30%
Coal	0.10%

The percentage of Connecticut’s households that use heating oil is at the lowest level since 1940; however, there are almost three times the number of households in Connecticut today than there were in 1940.

<sup>5</sup> CT DEEP, Guidance for Residential Home Heating Oil Tank Leaks; Connecticut DPH, CT-Action-Level-List-Mar-2019-Update.pdf, revised March 6, 2019.

<sup>6</sup> Connecticut Department of Public Health, “Heating Oil Contamination and Your Home”.

<sup>7</sup> U.S. Census, American FactFinder Table B25040: House Heating Fuel, 2017 American Community Survey 1-Year Estimates.



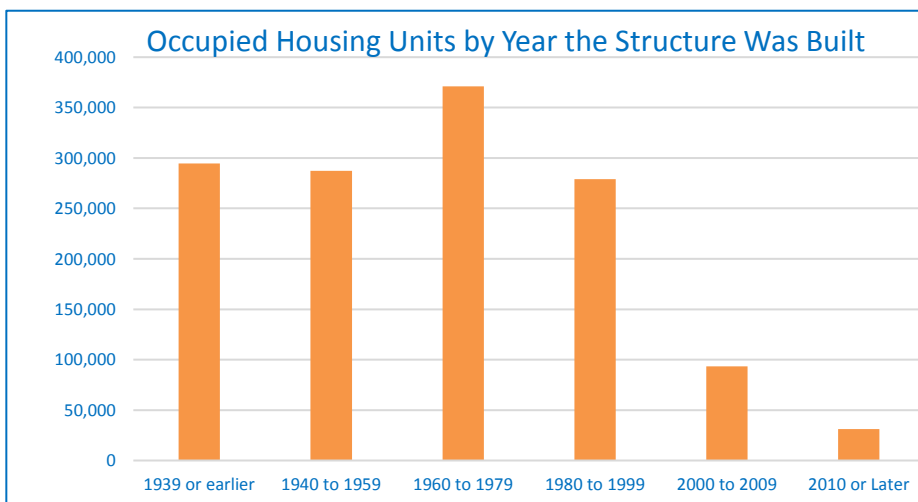
While the average daily sales/deliveries of heating oil has declined by almost sixty percent (60%) between 1988 and 2018, there were still over 320 million gallons of No. 2 heating oil sold in Connecticut in 2018.<sup>8</sup>

The heating oil used in Connecticut may also be blended with biodiesel, which is a renewable fuel made from biomass -

usually vegetable oils and animal fats. Consequently, the total amount of heating oil sold for residential heating would exceed 320 million gallons in 2018.

### Connecticut's Aging Housing Stock Contributes to the Problem

As discussed above, there are approximately 560,000 households that are estimated to use heating oil to heat their homes and/or domestic hot water. While every household has the potential to have an accidental release of heating oil, heating systems that are older than twenty-five years may be at greater risk of a release.



Ninety-one percent (91%) of the housing units in Connecticut are owner-occupied and were built prior to 1999<sup>9</sup>, which means most of the home heating oil tanks installed when the house was built are near or past their life expectancy of fifteen to twenty-five years depending on site conditions.<sup>10</sup>

As depicted in the map below, DEEP's data also indicates that many of the municipalities in densely populated southwest Connecticut have had the greatest number of residential heating oil releases in the state over the last ten years. Those towns also rank among the municipalities with the highest number of tanks.

<sup>8</sup> U.S. Energy Information Administration: <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=C210011091&f=M>.

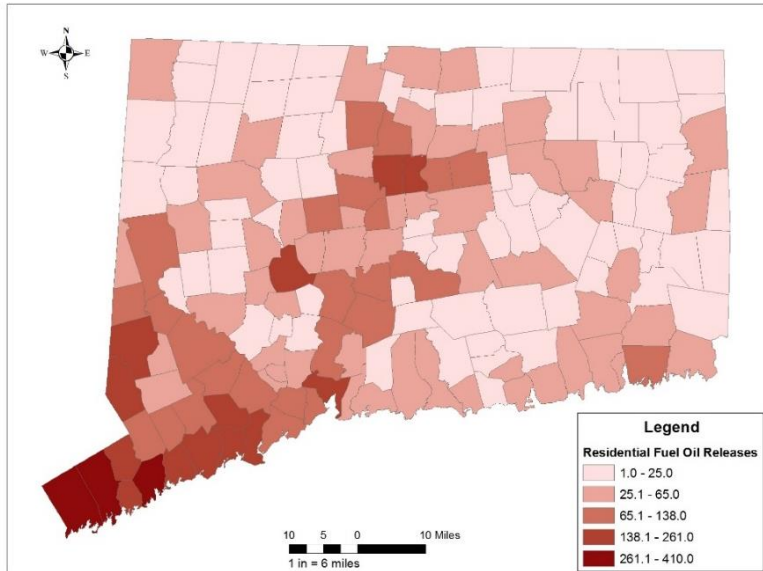
<sup>9</sup> U.S. Census, US Factfinder - Physical Housing Characteristics for Occupied Housing Units 2017 American Community Survey 1-Year Estimates.

<sup>10</sup> CT DEEP, Residential Home Heating Oil Tank Maintenance.

## Residential Heating Oil Releases by Town (Jan. 2010- Sept. 2019)<sup>11</sup>

### CT's Towns with the Most Heating Oil Releases

Municipality	No. of Reported Releases
Stamford	410
Greenwich	377
Norwalk	311
Fairfield	261
Bridgeport	245
Westport	229
West Hartford	212
Stratford	193
New Haven	192
Trumbull	191



### Percent of Households with Heating Oil in Connecticut

County	% of Total	County	% of Total
Fairfield	23.42%	Litchfield	7.18%
New Haven	22.24%	Middlesex	6.60%
Hartford	20.31%	Tolland	5.40%
New London	10.33%	Windham	4.53%

Windham County has the highest percentage of homes with oil heat (58%); however, the county has the least number of occupied housing units of all the counties in the state.

% of Total = number of households that use heating oil in each county/number of households that use heating oil in CT

## Responsibility for Releases and Potential Costs of Cleaning Up

State law requires that any release "which poses a potential threat to human health or the environment," shall be immediately reported to DEEP, specifically, the Emergency Response and Spill Prevention Division at **860 424-3338** (or **866 337-7745**). DEEP maintains a website and an emergency response center for residents and businesses to report spills or other environmental emergencies 24 hours per day.

If heating oil is in surface water or a drinking water well, it should also be reported to the Remediation Division at DEEP at **860-424-3705**. In addition, a Significant Environmental Hazard report is also required by law if: 1) a drinking water well is within 500 feet of the leak and groundwater contains any petroleum component over the Groundwater Protection Criteria (for Extractable Total Petroleum Hydrocarbons (ETPH) of 250 parts per billion [ppb or µg/l]), or 2) there is any petroleum component detected in a drinking water well at any level.<sup>12</sup>

If DEEP responds to a release or discovers that a spill has occurred, the agency will attempt to identify the parties that caused the spill and the property owner(s). State law mandates that the person, firm or corporation which directly or indirectly causes pollution and contamination is liable for all costs and expenses incurred in "*investigating, containing, removing, monitoring or mitigating such pollution and contamination*"<sup>13</sup> Furthermore, the state will, whenever possible, recover all of its clean up expenses.

<sup>11</sup> CT DEEP, Worksheet: No.2 Fuel Oil Data Summary 10-15-19 Update.

<sup>12</sup> Connecticut General Statutes (CGS) Sec. 22a-450; Report of discharge, spill, loss, seepage or filtration. Regulations. CT DEEP Website: Guidance for Residential Home Heating Oil Tank Leaks.

<sup>13</sup> CGS Sec. 22a-451.; Liability for pollution, contamination or emergency.

According to DEEP, out of all the reported heating oil releases on residential properties, DEEP responded to approximately twenty-six percent (26%) or approximately 2,300 releases over the last approximately ten years. Reasons for DEEP not responding can include:

- known to be a small quantity or resident contains / cleans up the release on their own;
- resident hires a clean-up contractor but still reports the release;
- others are responding (example - fire department) with absorbents to help the resident clean up the release;
- release is within a contained area without a release to the environment; (example - small release inside basement) and is being properly cleaned up; and
- prioritization – DEEP may not have resources to respond to a small release if responding to a more significant release elsewhere.

**Remediating heating oil releases is estimated to cost Connecticut homeowners approximately \$3.3 million or more each year.**

The average cost to DEEP for responding to and remediating a release of heating oil at a person’s residence (possibly in coordination with a remediation contractor) is estimated to be approximately \$7,400 per incident response. In most cases, the property owner is the party held responsible for DEEP’s incident response. DEEP’s records indicate that the median incident response cost for a release is approximately \$3,500 while the maximum incident response cost that is currently (October 2019) in a “collection” status at DEEP is more than \$57,000.<sup>14</sup>

**Insurance could assist the responsible party with some of the costs associated with a spill.**

Liability for bodily injury and property damage arising out of pollution or contamination is often an “exclusion” in property insurance coverage.<sup>15</sup> To protect Connecticut’s consumers, the Connecticut Department of Insurance has held a long standing regulatory position that, for homeowner’s insurance, “fuel oil” shall not be defined as a “pollutant”.<sup>16</sup> The Insurance Department requires that homeowner’s policies include \$50,000 in liability coverage and \$10,000 for the clean-up of a fuel oil release. Exceptions might exist for “grandfathered” policies or policies written in the “residual market”. The courts would ultimately be charged with interpreting the policy language to determine if coverage exists for remediation under an issued insurance contract. Property owners wishing assurance that their policy covers releases of heating oil are advised to consult with their insurance agent. If their insurance policy doesn’t offer the coverage they wish, they can request a new policy from the same company that would include coverage or they can shop for another company that offers it.

Every registered heating oil dealer is [required](#) to provide evidence of general liability [insurance coverage](#) and insurance to cover any potential environmental damage due to heating oil spills. The coverage requirement is one million dollars (\$1,000,000.00) or more, and the “certificate holder” must be State of Connecticut, Department of Consumer Protection.<sup>17</sup>

**Cost of Replacement**

A new 265-275 gallon double-wall tank with a thirty year warranty is between \$1,000 and \$1,500. Removal contractors generally charge an additional \$1,000 to \$2,500 depending on the size of the tank and its condition, and how easily it can be reached. Usually not included in this price is the cost of sampling and testing, and associated cleanup work if a leak is found.\*

\* MassDEP, Removing Your Underground Heating Oil Tank 1 A Homeowner’s Guide, Spring 2008

<sup>14</sup> CT DEEP, Worksheet: No.2 Fuel Cost Analysis 11-6-2019 FINAL; Based on DEEP’s cost recovery database, which includes data for DEEP’s pending “recoverable” expenses associated with their coordinated response to heating oil spills at “private” residential properties. It is estimated that only \$190,000 in expenses associated with DEEP’s response to residential heating oil releases has been “unrecoverable”.

<sup>15</sup> RCSA, Sec. 38a-334-5. Minimum provisions for bodily injury liability and property damage liability

<sup>16</sup> Personal communications with the Property Casualty Division, CT Insurance Department received 12/2/19 – 12/4/19.

<sup>17</sup> State of Connecticut, Department of Consumer Protection - Instructions for Home Heating Fuel Dealers Registration.

## Residential Heating Oil Tanks are Not Subject to Mandatory Registration, Reporting, or Inspection by DEEP

### Aboveground Heating Oil Storage Tanks (AST):

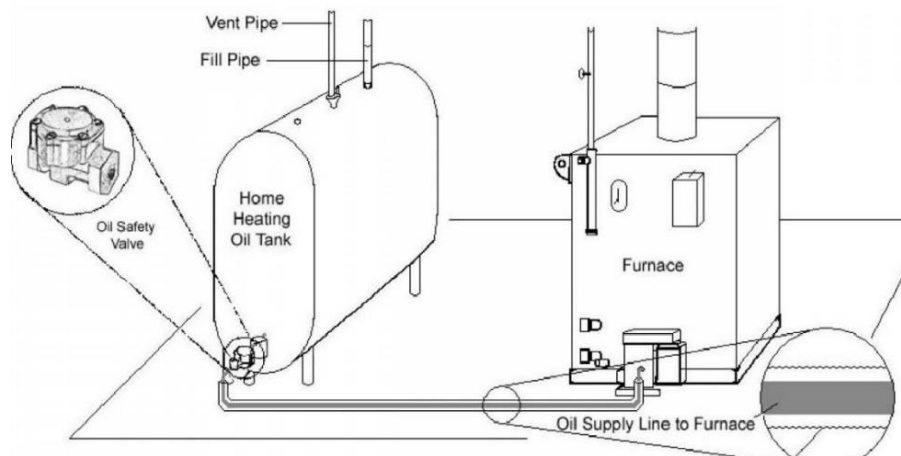
- DEEP does not regulate AST or maintain an associated database. There is no requirement for DEEP to undertake routine inspection or registration of any residential AST or certain underground fuel oil tanks (see below). Heating oil dealers, though not legally required to conduct inspections, have the personnel with the easiest access and, with training, the capability of performing AST inspections.

### Underground Heating Oil Storage Tanks (UST):

- While DEEP does regulate commercial USTs, DEEP does not regulate USTs used for residential heating oil at residences with four, or fewer, units.
- If a UST is used to heat five or more residential units and is not attached to an emergency generator, it is regulated under the [RCSA 22a-449\(d\)-1](#). If the UST also fuels an emergency generator, it is regulated differently.
- DEEP does not require property owners to remove residential heating oil UST unless they are leaking.
- Tanks used for the storage of heating oil for consumptive use on the premises are excluded from federal UST regulations.

**The 2018 Connecticut State Building Code (SBC)** specifies that “oil-burning equipment, piping and storage” are subject to the SBC and shall comply with [NFPA 31](#), “Standard for the Installation of Oil-Burning Equipment” as incorporated in the 2018 Connecticut State Fire Safety Code and the 2018 Connecticut State Fire Prevention Code. The 2018 SBC has provisions that allow the local building official or their assistant to inspect and regulate unsafe devices and equipment.

### Heating Oil Storage Tank and Furnace Components<sup>18</sup>



The Residential Property Condition Disclosure Report requires the seller of residential property to provide a disclosure to the prospective purchaser prior to the prospective purchaser’s execution of any binder, contract to purchase, option or lease containing a purchase option to disclose the “System Utilities”, including but not limited to any heating system problems and if the property owner is aware of any problems with the fuel tank.<sup>19</sup>

**DEEP provides information about home heating oil tanks on its [website](#).**

<sup>18</sup> MassDEP, Homeowner Oil Heating System Upgrade and Insurance Law Factsheet, February 2011.

<sup>19</sup> Connecticut General Statutes, Sec. 20-327b, The Uniform Property Condition Disclosure Act; RCSA Section 20-327b-1.

## Reducing Releases

### Heating Oil Dealers are the First Line of Defense

There are 586 home heating dealers registered with the State for the 2019-2020 heating season for both heating oil and/or propane. They play a vital role in the provision of fuel for heating in Connecticut. Heating oil is typically trucked or piped from Connecticut's deep water ports to smaller storage facilities throughout the state. Dealers then deliver the heating oil from these storage facilities to customers.<sup>20</sup>

Fuel oil dealers' observations at the delivery point could be the most important factor in preventing an accidental release of heating oil. Routine inspection of liquid fuel storage systems prior to dispensing heating oil at a customer's property is an important measure for reducing the accidental release of heating oil. Some heating oil dealers in the state do inspect and voluntarily affix "red tags" on oil heating systems that pose a threat to public health and/or the environment, but not all do. The Connecticut Energy Marketers Association (CEMA) offers training and consultation to the industry on "best practices" to minimize the number and severity of heating oil releases.<sup>21</sup>



Best practices may include, but are not limited to, the following:

- Ensure delivery drivers are trained and have hazmat endorsement;
- Ensure all delivery trucks are equipped with spill containment equipment and DEEP's spill response contact information;
- Ensure drivers are aware of how to use containment equipment and have it with them at the point of fill;
- Verify delivery is consistent with the volume of previous deliveries;
- Visually inspect all tanks, connections, venting, and safety measures are in place and working; and
- Document inspection results.

Double-wall tanks and spill containment basins can reduce the risk of a release to the environment, and can be inexpensive compared to the cost of cleaning up a catastrophic spill.

#### "Red Tags"

"Red tag" is a term commonly used to refer to a placard that indicates a system should not be used or a supply tank that should not be filled.

1. Local building inspectors have statutory [authority](#) to seal off any unsafe device or equipment regulated by the State Building Code.
2. DEEP may "red tag" an underground fuel storage system that is not in compliance with statutory requirements.
3. Heating oil technicians may also use "red tags" to identify equipment that is unsafe until a problem is fixed.
4. The [Community Action Agencies](#) (CAA) network plays an important role by deferring "fuel delivery in cases where heating systems, including leaking fuel tanks, have been "red tagged" by a vendor certified to evaluate heating systems." \*

<sup>20</sup> U.S. Department of Energy, Energy Information Administration, Connecticut – Profile Analysis; July 18, 2019.

<sup>21</sup> Personal correspondence with Chris Herb, President of CEMA.

\* From: Low Income Home Energy Assistance Program Block Grant Allocation Plan October 1, 2019 – September 30, 2020.



## Strategies in Other States

Other New England states have requirements for residential aboveground tanks that store heating oil to minimize environmental risk and protect homeowners from unexpected expenses. Key provisions include requirements for inspections and/or upgrades:

**Vermont:** [Regulation](#) of aboveground storage tanks by the Agency of Natural Resources began in 2011 as a way to try and reduce the number of accidental releases from mostly home fuel oil tanks. New regulations, effective August 15, 2017, required all storage tank systems to be inspected as detailed below.

A tank system shall be inspected at the following times, where applicable:

- (1) Immediately after tank system installation;
- (2) Immediately after initial delivery of fuel to the tank system;
- (3) Prior to the initial delivery of fuel to the tank system when the tank owner switches fuel carriers;
- (4) If not otherwise required under subdivisions (1), (2), or (3) above, the tank system shall be inspected once every three years; and
- (5) Upon removal of a tank system.

Inspections of AST are conducted by an inspector that is certified. AST that are inspected and determined to be non-compliant with the minimum safety standards are affixed with a red tag and reported within two working days of the date of the inspection to a state database for tracking AST compliance.

In the first year from the effective date of the new regulations for AST, 174 tanks were "red-flagged" for some deficiency. In the second year of the program, the number of "red-tagged" tanks increased by over one-hundred percent to 422. The main reasons for an AST being "red-flagged" included unstable foundation; non-working vent alarm (whistle); improper fill pipe and vent pipe diameter; and evidence of leaks, drips, pitting, rust, dents, cracks or corrosion.

**Massachusetts** has a law (*Chapter 148, Section 38J: "Residential property utilizing heating oil tanks; safety requirements; inspection; certification)* to address home heating systems that use fuel oil that has three major provisions: [effective September 30, 2011]\*

- (1) Requires homeowners to enclose any fuel supply line with a continuous non-metallic sleeve; install an oil safety valve at the tank end of any fuel supply line; or employ any other approved release prevention method;
- (2) Requires inspection of upgrades of fuel supply lines and the installation of oil safety valves by a licensed oil burner technician;
- (3) Requires insurance companies that write homeowner policies make available liquid fuel endorsements to homeowners with heating oil systems.

\*The number of heating oil releases reported to the Massachusetts Department of Environmental Protection (MassDEP) in the 2018 calendar year decreased to 104 from 182 in 2011, the year in which the inspection and upgrade requirements took effect. MassDEP does not require reporting of spills less than ten gallons.

**Maine:** [Requires](#) all new and replacement home heating oil tanks within the wellhead protection zone of community drinking water wells to be double-walled or have secondary containment. Maine also established the Aboveground Home Heating Oil Storage Tank Replacement Program to help tank owners pay for the replacement of unsafe tanks. The Maine Department of Environmental Protection has made arrangements for grants through the State's eleven Community Action Agencies to provide funds to remove ASTs at single family, owner occupied, and residential households.

Income eligibility guidelines for the AST program are the same as those for the Low Income Home Energy Assistance Program (LIHEAP).

## Making Improvements Affordable for Everyone

There are a number of finance programs in the state to assist property owners upgrade their heating system; some include the replacement of the fuel storage tank to reduce the risk of an accidental spill. The Connecticut Green Bank oversees a loan program, funded by local lenders, which will cover the cost of a tank replacement as part of a system upgrade. Programs administered by Capital for Change (C4C), such as Energy Conservation Loans and the Landlord Loan, could include financing for the replacement of fuel oil storage tanks. CEMA also offers rebates for heating system upgrades that can include \$300 for a new double-wall aboveground tank or \$150 for a new single-wall aboveground tank.

The Connecticut Energy Assistance Program offers financial assistance to households with incomes up to sixty percent (60%) of the state median income. This federally-funded program has allocated \$1.5 million of the \$82.4 million budget in 2020 “for the repair or replacement of heating systems for single family, owner-occupied/life-tenant occupied dwellings that are determined to be unsafe, inoperable, and aged/inefficient with obsolete parts”,<sup>22</sup> which could include the fuel storage tank.

The fuel storage tank is a crucial component that should be considered in any upgrade or repair to the heating system. Additional information about loans and finance programs, with links to their websites, is provided in **Appendix A** of this report.

## Conclusion

There have been an average of over 900 reported releases of heating oil annually in Connecticut in the last ten years at residential properties. The potential exists for this trend to continue as existing tanks and fuel supply system components continue to age. Analysis of the reported spills in the state shows a correlation with the number of tanks; where there are more heating oil tanks, there have been more releases. This suggests that where there is a heating oil tank and supply line, either or both will eventually fail if not inspected and maintained. For homeowners who choose to stay with oil, inspection of the heating oil tank and supply line and replacement, if warranted, is essential. Access to grants and low interest loans, possibly with on-bill financing through the state’s utilities, could provide the financial resources needed to upgrade or replace a fuel oil storage tank.

Increased education and awareness of the dangers of heating oil releases, coupled with requirements for inspection and low cost preventive measures, could substantially reduce the incidence and amount of heating oil accidentally released from residential fuel storage tanks. In addition to more frequent and thorough inspections of the heating system, an online database of “red tagged” tanks would help to ensure that fuel oil dealers do not delivery fuel into unsafe heating oil storage tanks. If a release of heating oil does occur, it should be made clear and well understood to property owners whether or not financial resources would be available for remediation through liability coverage associated with their insurance contract.

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<sup>22</sup> Low Income Home Energy Assistance Program Block Grant Allocation Plan October 1, 2019 – September 30, 2020.

## Recommendations

**1. Connecticut should mandate the same safety features required by Massachusetts and Vermont on heating oil storage systems.**

These include, but are not limited to, vent alarm (whistle), upgrading the fuel supply line between the tank and heating equipment to have a corrosion resistant coating or installed through a corrosion resistant conduit, and installation of an oil safety valve at the tank end of any fuel supply line.

**2. Connecticut should require periodic inspection of heating oil tanks and supply lines.**

Despite the language in the National Fire Protection Association (NFPA 31)<sup>23</sup> that “each tank shall be periodically inspected by a qualified technician for evidence of leakage and shall be maintained liquidtight”, there is no mechanism in place to guarantee compliance with this requirement.

The heating oil tank inspection should be consistent with NFPA 31 and the recommendations of the National Oil Heat Research Council and should include the tank and the supply line between the tank and the heating equipment, which is a point of failure for nearly one in twenty releases. It would be a good practice for every dealer delivering to a new client to inspect the oil storage and supply line prior to filling, as is done in Vermont.

**3. Connecticut needs a central database to which dealers and government officials can report faulty equipment.** A central database could prevent filling of an unsafe fuel storage tank by a dealer who is unaware of its status and could also provide a record inspections.

**4. The State should allocate more financial resources through the Connecticut Energy Assistance Program and expand the eligible measures for other energy financing programs to help homeowners and landlords upgrade unsafe or inefficient heating systems including fuel storage tanks.**

**5. DEEP should add to its webpage on [home heating oil](#) the following additional information:**

- **Guidance to homeowners about insurance coverage for accidental releases of home heating oil.**
- **A statement that heating oil dealers’ liability insurance may cover releases that are their fault.**
- **Reference to state programs that are available to assist homeowners who wish to upgrade or replace heating oil tanks or heating systems, as summarized in Appendix A.**

**DEEP should also coordinate with the Department of Public Health, Department of Insurance, the Department of Consumer Protection and heating oil dealers to make the information above broadly available to the public.**

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<sup>23</sup> NFPA 31, Standard for the Installation of Oil-Burning Equipment, 7.11.3.

## About the Council on Environmental Quality

The duties of the Council on Environmental Quality (CEQ) are described in Sections [22a-11 through 22a-13](#) of the Connecticut General Statutes.

The Council is a nine-member board that works independently of the Department of Energy and Environmental Protection (except for administrative functions). The Chairman and four other members are appointed by the Governor, two members by the President Pro Tempore of the Senate and two by the Speaker of the House. The Council's primary responsibilities include:

- Submittal to the Governor of an annual report on the status of Connecticut's environment, including progress toward goals of the statewide environmental plan, with recommendations for remedying deficiencies of state programs.
- Review of state agencies' construction projects.
- Investigation of citizens' complaints and allegations of violations of environmental laws.

In addition, under the Connecticut Environmental Policy Act (CEPA) and its attendant regulations, the Council reviews Environmental Impact Evaluations that state agencies develop for major projects. The Council publishes the *Environmental Monitor*, the official publication for Scoping Notices, Post-Scoping Notices, Records or Decision, and Environmental Impact Evaluations for state projects under CEPA. The *Environmental Monitor* also is the official publication for notice of intent by state agencies to sell or transfer state lands.

Council Members		
Susan D. Merrow, Chair	Lee E. Dunbar	Kip Kolesinskas
David Kalafa	Keith Ainsworth	Matthew Reiser
Alicea Charamut	Alison Hilding	Charles Vidich

Additional information about the Council members is available on the CEQ's [website](#).

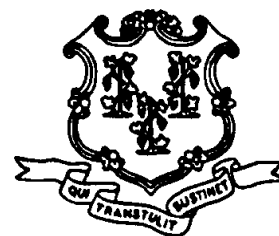
### Contact the CEQ

**Website:** [www.ct.gov/ceq](http://www.ct.gov/ceq) (for this and all Council publications)

**Mail:** 79 Elm Street, Hartford, CT 06106

**Phone:** 860-424-4000 (messages can be left 24 hours a day)

**E-mail the Council's Executive Director:** [Peter.Hearn@ct.gov](mailto:Peter.Hearn@ct.gov)



## Appendix A: Summary of Programs for Financing Heating Systems and Oil Tank Replacement (✓)

Program	Funding/Eligibility	Details
<p><b>Connecticut Energy Assistance Program</b></p> <p>Administered by: Department of Social Service (DSS) in partnership with the Community Action Agency (CAA) network</p> <p>This program is funded by the US Department of Health and Human Services) FY 2020 Plan - \$82,361,156</p>	<p>Income eligible homeowners and renters. Benefits are available to households with incomes up to sixty percent (60%) of the state median income.</p> <p><a href="https://portal.ct.gov/dss/Economic-Security/Winter-Heating-Assistance/Energy-Assistance---Winter-Heating">https://portal.ct.gov/dss/Economic-Security/Winter-Heating-Assistance/Energy-Assistance---Winter-Heating</a></p>	<ul style="list-style-type: none"> <li>• Could include financing for the replacement of fuel oil storage tank. ✓</li> <li>• DSS has allocated \$1.5 million in LIHEAP funds for the repair or replacement of heating systems for single family, owner-occupied/life-tenant occupied dwellings that are determined to be unsafe.</li> </ul>
<p><b>Energy Conservation Loans</b></p> <p>Administered by: Capital for Change (C4C)</p> <p>This program is funded by the Connecticut Department of Housing (DOH)</p>	<p>Replacement of non-operational heating systems for low- and moderate-income single-family (1-4 units) home owners. Program is subject to funding availability.</p> <p>Applicant must not be eligible for alternate heating loan products (Smart-E loan and EnergizeCT Heating Loan).</p> <p><a href="https://www.capitalforchange.org/homeowners/energy-efficiency-programs/ecl-plan">https://www.capitalforchange.org/homeowners/energy-efficiency-programs/ecl-plan</a></p>	<ul style="list-style-type: none"> <li>• Could include financing for the replacement of fuel oil storage tank. ✓</li> <li>• Limited to <b>emergency situations only</b>.</li> <li>• This loan may be used to finance energy efficient home improvements up to \$25,000 at below-market interest rates.</li> <li>• 0% interest rate loans are available for higher-efficiency boilers and furnaces.</li> <li>• Finance term up to 10 years.</li> </ul>
<p><b>Landlord Loan</b></p> <p>Administered by: Capital for Change (C4C)</p>	<p>Applicants must own a single or 2-4 family home (includes condos, mobile homes, and vacation homes) in the State.</p> <p>Non-listed work directly related and necessary to the installation of the listed qualifying measures may be financed along with the qualifying measure at the applicable interest rate.</p> <p><a href="https://www.capitalforchange.org/homeowners/energy-efficiency-programs/landlord-plan">https://www.capitalforchange.org/homeowners/energy-efficiency-programs/landlord-plan</a></p>	<ul style="list-style-type: none"> <li>• Could include financing for the replacement of fuel oil storage tank. ✓</li> <li>• Loans may be for \$3,000 to \$40,000.</li> <li>• 4.49% - 6.99% interest rate depending on term.</li> <li>• Financing term 5-12 years.</li> <li>• Subject to rent increase restriction for first year of loan.</li> <li>• Non-listed but related equipment is capped at 20% of the total loan amount).</li> </ul>

<p><b>Smart-E Loan</b></p> <p>Project review administered by: Connecticut Green Bank</p> <p>Loans administered and funded by local lenders</p>	<p>CT Green Bank in partnership with select local lenders and contractors.</p> <p>Property must be owner-occupied, 1 to 4 units, and located in Connecticut.</p> <p><a href="https://ctgreenbank.com/programs/smart-e-loans/">https://ctgreenbank.com/programs/smart-e-loans/</a></p> <p><a href="https://www.capitalforchange.org/homeowners/energy-efficiency-programs/smart-e-plan">https://www.capitalforchange.org/homeowners/energy-efficiency-programs/smart-e-plan</a></p>	<ul style="list-style-type: none"> <li>● Oil burning equipment upgrades and fuel storage systems are eligible provided the fuel storage tank does not exceed 25% of the total project cost. ✓</li> <li>● Financing is available up to \$40,000.</li> <li>● No money down.</li> <li>● 4.49% to 6.99% interest rate depending on term.</li> <li>● Financing term 5-12 years.</li> </ul>
<p><b>“Upgrade And Save”</b></p> <p>CEMA Rebate Program</p> <p>Rebates must be processed through a registered Connecticut dealer</p>	<p>The Connecticut Energy Efficiency and Safety Rebate offers Connecticut homeowners up to \$1,300* when they install new, higher-efficiency oil-fired furnaces or boilers, including up to \$300 for a new aboveground oil storage tank.</p> <p><a href="http://www.upgradeandsavect.com/">http://www.upgradeandsavect.com/</a></p>	<ul style="list-style-type: none"> <li>● \$300 for a new double-wall above ground tank or \$150 for a new single-wall above ground tank. ✓</li> </ul>
<p><b>Residential Furnace and Boiler Replacement Program</b></p> <p>(AKA Energize CT Heat Loan Program)</p> <p>Administered by: Capital for Change (C4C)</p> <p>Funded by: CT Utilities</p>	<p>All residential electric customers of Connecticut’s Eversource or United Illuminating utility companies.</p> <p>Customers must be the homeowner and have a minimum of six consecutive months of timely utility payments or no more than two late payments in the past twelve months.</p> <p><a href="https://ctheatloan.com/">https://ctheatloan.com/</a></p>	<ul style="list-style-type: none"> <li>● Does not include financing for the replacement of fuel oil storage tank.</li> <li>● Financing is available up to \$15,000.</li> <li>● A minimum down payment of 10% is required by statute.</li> <li>● The minimum down payment varies by type and efficiency of equipment selected.</li> <li>● 0.99% interest rate.</li> <li>● Financing term between 3 to 10 years.</li> </ul>
<p><b>Weatherization Assistance Program</b></p> <p>Administered by: DEEP in partnership with the CAA network</p> <p>This program is funded by the US Department of Energy (DOE)</p>	<p>The Weatherization Assistance Program (WAP) uses the same eligibility criteria as the Connecticut Energy Assistance Program.</p> <p>Applications for WAP are taken at the same time as the Connecticut Energy Assistance Program as part of a joint application process.</p> <p><a href="https://www.ct.gov/deep/weatherization">https://www.ct.gov/deep/weatherization</a></p>	<ul style="list-style-type: none"> <li>● Oil Tanks are considered a maintenance measure by the DOE and no longer can be replaced under the Weatherization Programs as their upkeep is, in the opinion of the DOE, the responsibility of the homeowner. Other non-WAP funding must be used to replace these tanks as they are not considered by DOE to be an allowable health and safety measure under WAP. (CT WAP Weatherization Guidance No. 29, 12/11/18)</li> </ul>