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Waste Oil Heater
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FREE HEAT THROUGH WASTE OIL RECYCLING



The Town of Glastonbury



ONE MAN'S TRASH IS ANOTHER MAN'S TREASURE

As alternative fuels began to gain momentum, so did the development of heating equipment that could be used to burn fuels other than the conventional oil and gas systems. Waste oils from vehicles and machinery such as used motor oils, brake fluid, gear lubricants, automatic transmission fluid, and diesel fuel, all have a high heat value and can be used in certain applications as a source of heating fuel.



Waste Oil Heater at the Vehicle Maintenance Facility. The Unit is stored on an elevated platform and connected and fed by oil tanks stored below.

In the past, Glastonbury paid a fee to dispose of these waste oils, however the Town has since created a system whereby it can recycle these chemicals into heat for powering town equipment. As part of the development of Riverfront Park, the Town purchased the former "Hallmark Tire" building and, before demolishing the structure, Glastonbury staff assessed the contents for use in other Town operations. One of the items salvaged for reuse was a waste oil heater, which staff removed from the site and installed in the vehicle maintenance wash-bay in the Spring of 2014. The wash-bay, located at the Town's Vehicle Maintenance Facility on New London Turnpike, was previously heated primarily through a propane gas system. By using the newly installed waste oil heater, the wash-bay can be primarily heated with waste oil fuel, and merely supplemented by propane heat.

WASTE OIL BECOMES HEAT

Waste oils are considered hazardous waste, and therefore must be disposed of in accordance with Environmental Protection Agency (EPA) regulations. To ensure disposal requirements were properly addressed, Glastonbury previously used a third-party contractor to collect and dispose of its waste oils and incurred a nominal fee.



Ed Kowalski changing oil on Town Police Cruiser.

"Waste oil from one dump truck alone can amount to 25-30 quarts of fuel and, when considering the entire fleet, this fuel will significantly reduce waste while eliminating recycling fees." - Chuck Mahan, Physical Services Operations Manager



John Van Alphen empties waste oil into fuel troth.



Holding tanks used to store waste oils connected to fuel troth.

Helpful Terms:

Waste Oil:

Any petroleum based fluid or synthetic oil that has become unsuited or unwanted for its original purpose through use or handling

Waste Oil Heater:

Any piece of equipment that utilizes waste oil as a fuel source to warm the contents of a forced-air heating system

Wash-Bay

Location where the Town vehicles are cleaned by Highway staff members

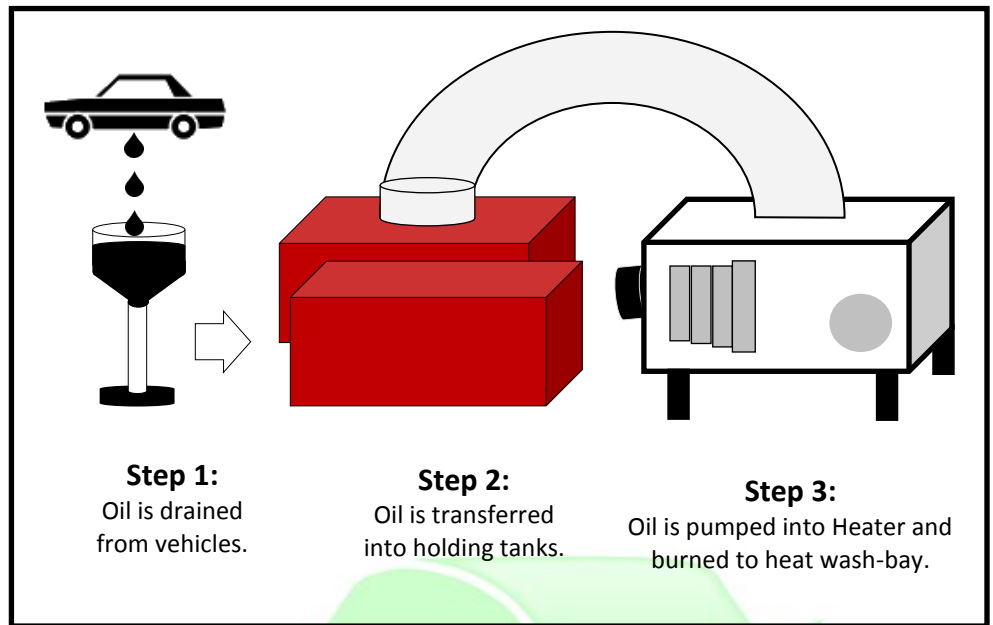
Sources:

<https://www.cleanburn.com/oil-recycling/about-waste-oil/>

With the waste oil heater now in use at the wash-bay, the waste oils are instead burned as a source of heat, eliminating the disposal fees and providing a free source of heating fuel for Town operations.

How it Works

Used waste oil from the Town fleet is now stored in holding tanks connected to an automatic syphoning & pumping system that feeds directly to the Waste Oil Heater. (See diagram below.) The fuel does not require special temperatures to perform and, unlike gasoline, it does not have a shelf life. This makes the fuel source more economical and more convenient in terms of ongoing maintenance. Like any other furnace, the unit does require annual maintenance and cleaning to optimize performance, (e.g. waste products must be filtered to remove metal chips, filings, lead from bearings, sludge, water, and other impurities), however the efficiency and cost savings greatly outweigh the maintenance requirements.



Alternative Energy / The Green Energy Solution

Clean Burn is a strong advocate of environmental protection and energy conservation. Multi-oil heating systems and storage tanks meet all EPA requirements for waste oil recycling – eliminate extra handling and transportation of waste oils and, consequently, help avoid the possibility of waste oils entering our water supplies.

In a world faced with severe environmental challenges, these systems just make sense. First, recycling your waste oil through on-site heat recovery reduces the risks of spills and contamination. Second, the use of waste oils as a fuel source sharply reduces pressure on natural gas and fuel oil supplies. Finally, Clean Burn waste oil combustion meets or exceeds every Environmental Protection Agency (EPA) requirement for helping preserve clean air. The EPA and corresponding agencies worldwide recognize Clean Burn equipment as a preferred method of recycling used motor oils. * Source- www.cleanburn.com

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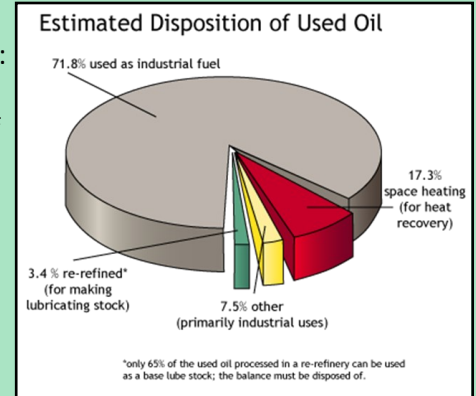
* Please consider the
environment before printing
this bulletin.*

WASTE OIL DISPOSITION*

What happens to your vehicle's waste motor oil after it's collected? Good question. Consider the chart to the below. The disturbing statistics indicate that, of the 1.3 billion gallons of waste oil generated in the U.S. yearly, over 200 million gallons are **not** collected, but dumped illegally, (or accidentally), into sewers, streams, drains, landfills, and backyards.

The impact of this negligence is staggering:

- 200 million gallons is the equivalent of nearly 20 Exxon Valdez spills each year.
- One gallon of waste oil can contaminate up to one million gallons of fresh drinking water.
- One quart of waste oil can create a two-acre slick on surface water.
- 40% of the pollution in U.S. waterways is from waste motor oil.



* Source: American Petroleum Institute (API) National Oil Recyclers Association (NORA)

RELATED LINKS

[Clean Burn - Information about waste oil heater systems.](#)
[AgSolutions, LLC- Facts and figures about waste oil systems](#)
www.cleanburn.com
[American Petroleum Institute \(API\)](#)
[National Oil Recyclers Association \(NORA\)](#)

GLASTONBURY'S GREEN INITIATIVES PROGRAM

Glastonbury's Green Initiatives Program operates under the direction of the Town Manager. The committee is chaired by the Purchasing Agent and the Superintendent of Sanitation and committee members represent departments across Town staff. Members contribute ideas for a "greener" community, assemble product information, and disseminate information about "green initiatives" to Town staff and community-wide. With the Town Manager's approval, the committee also helps implement green initiatives as opportunities arise. "Green Bulletins" such as this one contain information about the results of these efforts and other noteworthy accomplishments. We hope you find this piece informative to the Town's commitment to creating a "greener community". Please contact us for further information or to submit a suggestion to the Green Committee for consideration.