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Used Oil in Connecticut

Compliance Conundrums



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Different Regulatory and Statutory Categories

- Used Oil
- Waste Oil
- Unused, Off-Specification Petroleum Products



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Used Oil

- Federal Rule promulgated September 1992 at 40 CFR Part 279.
- Replaced 40 CFR Part 266 Subpart E
- Adopted by CT in 2001 at RCSA 22a-449(c)-119



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Part 279 provided the first set of regulations that covered the whole used oil universe.

Regulates generators, aggregation points, transporters, re-refiners/processors, burners and marketers



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Part 279 also does a better job defining used oil and used oil related materials than the previous requirements.

The regulatory language also provides for when oil is not used oil.



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Mixtures with Hazardous Waste

- Listed Waste
- Characteristic Waste
- Waste from Conditionally Exempt SQGs



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Mixtures with Characteristic Hazardous Waste

If the mixture exhibits a characteristic of hazardous waste, than it is managed as a hazardous waste.

Example 1: Used oil has benzene, hazardous waste has lead, and the mixture exhibits the toxicity characteristic for lead. The mixture is hazardous waste.



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Example 2: Used oil has benzene, hazardous waste has lead, and the mixture exhibits the toxicity characteristic for benzene. The mixture is hazardous waste.

Example 3: Used oil has benzene, hazardous waste has lead, and the mixture exhibits no characteristic of hazardous waste. The mixture is used oil.



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Mixture of “Ignitable-only” hazardous waste and used oil

The mixture is hazardous waste only if it still exhibits the ignitability characteristic.



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Mixtures of Hazardous Waste from CESQGs and Used Oil

USEPA says it's used oil

CTDEP says it's hazardous waste



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Short Answer:

Don't mix used oil with hazardous waste!



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Materials containing or contaminated with used oil.

If the used oil has been drained and there is no sign of free flowing oil – the “material” is not used oil.



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Materials containing or contaminated with used oil.

There was much rejoicing until you realize that the material is now probably a normal solid waste and you have to do your hazardous waste determination.



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Materials containing or contaminated with used oil.

Materials going for energy recovery are considered used oil; and

Oil recovered from materials is used oil



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Special note: Used oil in CT that goes for energy recovery must have 5,000 BTU/lb when burned.

Some “materials” may not meet this requirement and would be classified as solid waste.



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Used Oil Determination

You need to perform a used oil determination, which is similar to a hazardous waste determination.

The key parameters are PCBs and Total Halogens



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Polychlorinated Biphenyls

Regulated under TSCA, even if the concentration is less than 50 ppm.

Used oil containing between 2 and 50 ppm cannot be used as fuel during start up and shutdown.



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Total Halogens

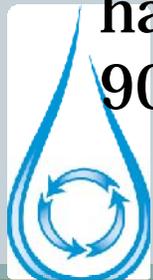
The concentration of fluorine, chlorine, bromine and iodine in the used oil.

Pop quiz: Name the fifth halogen.

No, not Hydrogen.

Astatine

You need to use the proper analytical method for total halogens. These include SW-846 methods 9075, 9076, 9077, 5050 w/9056A or 9253, or ASTM808.



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Total Halogens

You don't analyze for halogenated hydrocarbons (yet)
or total organic halides.

Action levels at 1,000 and 4,000 ppm



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Rebuttable Presumption

If the total halogens are greater than 1,000 ppm, it is presumed that the oil is mixed with hazardous waste.

You have the chance to rebut this presumption by demonstrating that the used oil does not contain any regulated, halogenated hydrocarbons. (Remember the “yet” on the previous slide?)

You can apply “knowledge of process” here or you can analyze the oil for the compounds listed in the regulations.



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Rebuttable Presumption

If you show that there is less than 100 ppm of each compound, you have successfully and objectively rebutted the presumption.

If not, the used oil is a hazardous waste and you should apply an F001 or F002 waste number to it.



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Specification vs. Off-Specification Used Oil

All used oil is off-specification unless you *analytically* prove that it meets the specification in the regulations.

Generators are not required to do this unless they choose to also be used oil marketers.



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Used Oil Specification

Arsenic	< 5 ppm
Cadmium	< 2 ppm
Chromium	< 10 ppm
Lead	< 100 ppm
PCBs	< 2 ppm
Flashpoint	> 100 deg F
Total Halogens	< 4,000 ppm



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Generator Requirements

Subject to SPCC requirements

Tanks and containers must be labeled “USED OIL”

Cannot ship directly to burners unless they comply with marketer requirements

Must retain records for three years (CTDEP requirement)

Secondary Containment (CTDEP requirement)



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Waste Oil

Covered under CGS 22a-454

Includes oils that have not been used

Requires a permit for those engaged in the business of collecting, storing, treating or disposing of waste oil, petroleum, chemical liquids, or hazardous wastes.

Hazardous wastes are separated into RCRA hazardous wastes and Non-RCRA hazardous wastes.



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Waste Oil Definition CGS 22a-448

"Waste oil" means oil having a flash point at or above one hundred forty degrees Fahrenheit (sixty degrees Centigrade) which is no longer suitable for the services for which it was manufactured due to the presence of impurities or a loss of original properties, including but not limited to crude oil, fuel oil, lubricating oil, kerosene, diesel fuels, cutting oil, emulsions, hydraulic oils, polychlorinated biphenyls and other halogenated oils that have been discarded as waste or are recovered from oil separators, oil spills, tank bottoms or other sources



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CT Regulated Wastes

CR01 PCBs

CR02 Waste Oil

CR03 Waste Water-Soluble Oil

CR04 Waste Chemical Liquids

CR05 Waste Chemical Solids



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Off-Specification Commercial Chemical Products Exempted from the Definition of Solid Waste at 40 CFR 261.2(c)(2)(ii)

In particular, fuel oils that go for reclamation and are used as fuel are not solid wastes, therefore, they are not hazardous wastes



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Questions?



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