



ENVIRONMENTAL GUIDANCE DOCUMENT

00-058

Rev. 9/2009

Used Oil & Used Oil Filters Management*



? What are the Basics? What Do You Really Need to Know About Used Oil Management Requirements?

This guidance document outlines the used oil requirements found in Title 128 – Nebraska Hazardous Waste Regulations (hereinafter referred to as Title 128 or T128). This guidance document supersedes the “Used Oil and Used Oil Filters Management Environmental Guidance Document” dated May, 2000. Used oil is not inherently hazardous, but if it contains certain additives, or if it has become contaminated with solvents, or other hazardous waste, it can fall under the hazardous waste rules. Improperly disposing of used oil can lead to contamination of drinking water, surface water, groundwater and soils.

The used oil regulations describe proper management of used oil. You can avoid the burden of treating used oil as a hazardous waste:

- If you do not contaminate it with other fluids, and
- If you handle and store it properly, and manage it as a used oil

Nebraska has adopted portions of 40 CFR Part 279 used oil management standards. The most recent T128 changes include:

1) The use of used oil as a dust suppressant is prohibited (T128, Ch. 7, 007.04C); 2) clarify the type of activities considered recycling and discerning between “free-flowing” used oil and materials contaminated with used oil (T128, Ch. 7, 009.01); and 3) Adding storage requirements for used oil generators; e.g., labeling or marking used oil tanks and containers with a volume of 25-gallons or greater with the words “Used Oil” (T128, Ch. 7, 009.04).

* This Material is intended for guidance purposes. It is not meant to substitute for the regulations found in Title 128 – Nebraska Hazardous Waste Regulations or other applicable Nebraska environmental regulations. *Produced by: Nebraska Department of Environmental Quality, P.O. Box 98922, Lincoln, NE 68509-8922; phone (402)471-4210. To view this, and other information related to our agency, visit our web site at www.deq.state.ne.us.*

USED OIL AND USED OIL FILTERS MANAGEMENT

This document describes what used oil is and details the management methods for used oil and related used oil waste for generators such as:

Households
Vehicle Repair Shops
Service Stations
Highway Maintenance Garages
Railroad Operations
Manufacturing and Industrial Plants
Utilities
Machine Shops
Farm and Ranch Operations

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DEFINITION OF USED OIL AND EXAMPLES

USED OIL DEFINITION. Title 128, Ch.1, 139 defines used oil as “any oil which has been refined from crude oil, or any synthetic oil, which has been used and as a result of use, is contaminated with physical or chemical impurities.” This definition covers the majority of oils used as lubricants, coolants, emulsions, or for similar uses that are likely to get contaminated through use. As the name implies, it must have been used, and because of such use, it is contaminated with physical impurities (like metal fines, sawdust or dirt) or chemical impurities (like fuel, certain molecular level metals, solvents, halogens or water).

In order to meet the definition of “used oil,” a substance must meet each of the three criteria listed below:

- ❑ **Origin** – The substance must be derived from crude or synthetic oil;
- ❑ **Use** – The material must have been used as a lubricant, coolant, non-contact heat-transfer fluid, hydraulic fluid, buoyant, or other similar purpose; and
- ❑ **Contamination** – The oil must be contaminated with physical impurities (e.g., water, metal shavings, sawdust, or dirt) and/or chemical impurities (e.g., lead, solvents, halogens, or other hazardous constituents because of use.

Note that “used oil” and “waste oil” are not interchangeable terms. Waste oil or oily waste does not always meet the definition of used oil. Refer to the examples of used oil, and examples that do not qualify as used oil listed below:

EXAMPLES OF USED OIL:

- ❑ Compressor oils
- ❑ Coolants
- ❑ Copper- and aluminum-wire drawing solution
- ❑ Electrical insulating oil
- ❑ Emulsions used as lubricants
- ❑ Engine oil
- ❑ Heating media
- ❑ Industrial hydraulic fluid
- ❑ Industrial process oils
- ❑ Metal-working fluids and cutting oils
- ❑ Mineral oil
- ❑ Refrigeration oil
- ❑ Synthetic oil
- ❑ Transmission fluid
- ❑ Used oil residues or sludges resulting from the storage, processing, or re-refining of used oils (when recycled by burning for energy recovery)

EXAMPLES OF MATERIALS THAT WHEN USED, DO NOT QUALIFY AS USED OIL:

- ❑ Animal fats and vegetable oils (even when used as a lubricant)
- ❑ Antifreeze
- ❑ Kerosene
- ❑ Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products
- ❑ Waste oil resulting from cleanout of fuel storage tank bottoms, spills of virgin fuel oil, or other oil wastes that have not been used
- ❑ Test and calibration fluids
- ❑ Petroleum-based products that are not used as lubricating agents or in other protective applications
- ❑ Fuels (gasoline, diesel, and fuel oils)
- ❑ Petroleum distillates used as solvents to solubilize or mobilize (e.g., mineral spirits, petroleum naphtha) and solvents manufactured from synthetic materials
- ❑ Brake fluid
- ❑ Two cycle fuel is not used oil

USED-OIL CONTAMINATED MATERIALS

Used oil contaminated materials are materials from which the used oil has been properly drained or removed to the extent possible so that there are no visible signs of free-flowing oil in or on the material. Such materials are not regulated as used oil. Instead, if oil-contaminated materials are non-hazardous, they are managed as solid waste in accordance with solid waste laws (Title 132 – Integrated Solid Waste Management Regulations). Used oil that is drained or removed from oil-contaminated waste is managed as used oil. If oil-contaminated materials are burned for energy recovery, they are regulated as used oil.

How Are Mixtures of Used Oil & Other Materials Regulated?

Materials containing or otherwise contaminated with used oil:

Except when burned for energy recovery, materials containing or otherwise contaminated with used oil are not subject to regulation as used oil provided the used oil has been properly drained or removed to the extent possible. No visible signs of free-flowing used oil should remain in or on the material. If the remaining materials are a solid waste, then they are subject to a hazardous waste determination and regulation as hazardous waste if they display a characteristic of hazardous waste or are mixed with a hazardous waste (Title 128, Ch. 7, 009.01).

GENERAL INFORMATION REGARDING USED OIL MANAGEMENT

After changing your oil, place it in a clean plastic container with a tight lid. Don't mix it with anything else (paint, gasoline, solvents, antifreeze, etc.). Take it to a service station, collection center, used oil recycler, or other location where used oil is collected. Contact city or solid waste officials for information on collection centers near you. A list of used oil and waste oil haulers is available from the Department by going to the NDEQ website, www.deq.state.ne.us and selecting either the 'Waste Service Providers Directory' or the 'Recycling Directory'.

Used oil is oil that has been contaminated by use. It is illegal to dispose of used oil as municipal waste or in a landfill. The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited (T128, Ch. 7, 007.04B). **The use of used oil as a dust suppressant is prohibited** (T128, Ch. 7, 007.04C). Acceptable alternatives for dust suppression include calcium chloride, lignosite, magnesium chloride, lignous sulfates or other compounds. It is best to coordinate with the NDEQ Water Division before use. Used oil containing greater than 50 ppm PCBs is regulated under the 'Toxic Substance Control Act' (TSCA). If your waste oil falls under TSCA, contact the EPA Region 7 office at (913) 551-7518.

Used oils mixed with hazardous waste are subject to hazardous waste regulations (Title 128, Ch7, 010.01C). Used oil that is recycled in some other manner than being burned for energy recovery is exempt from the hazardous waste regulations (Title 128, Ch7, 002.02).

SERVICE STATIONS AND OTHER GENERATORS

A generator is any business, which generates used oil. Besides vehicle repair shops and service stations, some of the more common examples of used oil generators are corporate and government motor pools and taxi, bus, and delivery companies. Individuals or households generating oil from oil changes are not subject to these regulations.

USED OIL STORAGE FOR USED OIL GENERATORS

- Containers and aboveground tanks used to store used oil must be in good condition (no severe rusting, apparent structural defects or deterioration) (T128, Ch. 7, 009.04A1).
- Containers and aboveground tanks must not leak (no visible leaks) (T128, Ch. 7, 009.04A2).
- Containers and aboveground tanks with a volume of 25 gallons or greater, must be labeled **or** be clearly marked with the words "Used Oil" (T128, Ch. 7, 009.04A3).
- Used oil containers and above ground tanks should be stored on a surface that does not allow used oil to seep through; e.g., cement or asphalt.
- Do not mix used oil with hazardous waste or hazardous substances.
- Contact the local Fire Department for applicable codes and ordinances.
- If there is a leak of used oil: stop the leak, contain it, clean it up and properly manage the cleanup materials. Any spills of 25 gallons or more must be reported. Spills of any amount to a waterway must be reported.

QUESTIONS AND ANSWERS

1. How should households manage their used oil?

It is important to keep used oil out of storm drains, garbage and trash receptacles, empty lots, waterways, and groundwater. Households need to be aware of the energy potential and the value of recycled oil, that it need not be wasted but can be reprocessed and used again. Households should collect and recycle their used oil. They should not add anything to the used oil (no antifreeze, solvents, or any other liquid). Households can:

- Give away their used oil to service stations or used oil collection centers for recycling. (This used oil should be picked up by reputable used oil collectors or dropped off at a collection center to be reprocessed and prepared for further use.)
- Burn their used oil or used oil from other households in space heaters designed to burn used oil.
- Give their used oil to other households, farmers or businesses for burning in approved space heaters. (Households and household generated used oil are exempt from analysis and recordkeeping requirements.)

2. How should farmers and ranchers manage their used oil?

Farmers and ranchers are subject to the same regulations as businesses. They can:

- Recycle their used oil through a reputable used oil collector who takes it to a used oil processor.
- Burn the used oil they generate or receive from households on-site in approved space heaters, they can also burn used oil from other businesses provided that the used oil meets the requirements of 'specification used oil' and the used oil marketer regulations are met (refer to the Used Oil Burned for Energy Recovery section of this guidance).
- Give used oil to a burner to burn on-site in a space heater only if the used oil is analyzed and determined to be 'specification used oil' (refer to the Used Oil Burned for Energy Recovery section of this guidance and follow the requirements for Marketers of Used Oil of this guidance).
- Give off-specification used oil to a burner to burn in an industrial furnace, industrial boiler, or utility boiler (refer to the Used Oil Burned for Energy Recovery section of this guidance, for the types of approved burning devices and follow the requirements for Marketers of Used Oil of this guidance).
- Give or sell on- or off-specification used oil to a used oil marketer.

USED OIL FILTERS

Used oil filters are exempt from hazardous waste regulation (Title 128 – Nebraska Hazardous Waste Regulations), (T128, Ch. 2, 009.12) with the exception of terne-plated oil filters. Terne-plated oil filters commonly fail the toxicity characteristic test for lead. For more information on disposal of terne-plated filters, contact the Waste Management Section at (402) 471-8308.

In order for exemption to apply, generators must drain oil filters using one of the following hot-draining methods:

- Puncture the filter's anti-drain back valve or the filter dome end and hot drain (T128, Ch. 2, 009.12A)
- Hot-drain and crush. (Hot-draining means the oil is drained near engine operating temperature and above room temperature.) (T128, Ch. 2, 009.12B)
- Dismantle and hot-drain (T128, Ch. 2, 009.12C)
- Any other equivalent hot-draining method which removes used oil (T128, Ch. 2, 009.12D)
- "Hot-drained" means that the oil filter is drained near engine operating temperature and above room temperature (T128, Ch. 2, 009.12E)

Once the used oil is removed, recycle the filter as scrap metal and recycle the recovered used oil. The department recommends recycling used oil filters. Check NDEQ's 'Waste Service Providers Directory' which includes used oil filter recyclers. If a recycler cannot be found for the used oil filters, crushed oil filters or properly drained oil filters may be disposed in a permitted municipal solid waste landfill.

TRANSPORTING USED OIL

Facilities that only transport used oil are not subject to regulation under Title 128; however, they must comply with all applicable Department of Transportation (DOT) regulations (402-471-0105). Transporters of used oil that has been mixed with a hazardous waste are subject to the hazardous waste transporter requirements (Title 128, Chapter 11).

The following applies to all used oil generators and those who accumulate used oil. You:

- Must maintain storage tanks and containers in good condition and label or clearly mark them with the words 'used oil'.
- Should process and store used oil in areas with oil-impervious flooring and secondary containment structures (such as berms or ditches).
- Should track incoming and out-going used oil. Used oil burners have additional requirements.
- Must notify local building or fire code regulatory agencies and follow local ordinances.

Oil spills or leaks must be cleaned up and any spills of 25 gallons or more must be reported. Spills of any amount to a waterway must be reported.

USED OIL BURNED FOR ENERGY RECOVERY

Burning of used oil, in approved space heaters designed to burn used oil, by businesses (e.g. farmers and service stations) is allowed without any analysis for specification, provided they burn the used oil they generate or used oil generated and collected from households.

Burning of used oil fuels in industrial furnaces and utility boilers is allowed under state rules and federal regulations. Burning of any used oil in these facilities must also comply with air pollution regulations (Title 129). Using specification oil as fuel is allowed if the oil has been analyzed and records are kept. Using off-specification oil as fuel is more restricted and is subject to greater regulation.

SPECIFICATION USED OIL

There are limits on the amount of certain hazardous substances that used oil can contain and be called 'specification' used oil. Laboratory analysis is required to determine whether or not your used oil meets the specifications outlined as follows.

Specification Used Oil is used oil that has been tested and analysis demonstrates that contaminants meet the following specifications:

Maximum Contaminant Levels for Specification Used Oil

Constituent/Property	Allowable Level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash Point	100 F minimum
Total Halogens	4000 ppm maximum

If used oil has been mixed with hazardous waste, that oil is considered a hazardous waste. The specification does not apply to mixtures of used oil and hazardous waste.

Burners of Specification Used Oil must:

- Apply for a NDEQ hazardous waste identification number if they are the first to claim the used oil meets the specification and the burner receives the used oil from a marketer. (A burner does not have to notify if the burner burns specification used oil that they generate or if they receive used oil from a marketer that previously notified NDEQ, burners that burn used oil they generate in a space heater also do not have to notify.)
- Burners must obtain analysis documenting that the used oil meets the specification and are required to keep records of the analysis for three years.

- Burners must obtain analysis documenting that the used oil meets the specification, if by processing, blending, or other treatment method they claim the used oil meets the specification, unless they are burning their own used oil in their own space heater.

Off-Specification Used Oil

Off-specification used oil is oil that has not been tested, or used oil that has been tested and exceeds any of the limits shown in the 'Contaminant Levels for Specification Used Oil' table.

Off-specification used oil burners must specifically comply with Title 128, Chapter 7, 009.

Burners of Off-Specification Used Oil Except for Used Oil They Generate Must:

- Apply for a NDEQ hazardous waste identification number and file a notification of used oil activities even if they already have an identification number for hazardous waste activities.
- Provide a one-time written and signed certification that the burner has notified NDEQ and that the burner will burn the used oil only in an industrial furnace, industrial boiler or utility boiler.
- Keep a copy of each invoice of used oil received from marketers for three years.
- Keep a copy of each certification notice sent to a marketer for three years from the date of last receiving off-specification used oil from the marketer.

Types of Approved Burning Devices for Off-Specification Used Oil:

- Industrial furnaces
- Industrial boilers
- Utility boilers
- Space heaters designed to burn used oil (See Below*)

*Burning of off-specification used oil in used oil-fired space heaters is allowed under state rules provided the following conditions are met:

- The heater burns only used oil the owner or operator generates, collects from household do-it-yourselfers, or used oil that is specification used oil.
- The heater is designed to have a maximum capacity of not more than 0.5 million BTUs per hour.
- The heater's combustion gases are vented to the outside air.
- Emissions from space heaters must have opacity of less than 20% (contact the NDEQ Air Division for more information).

MARKETERS OF USED OIL

(Generators Marketing Used Oil Directly to a Burner)

NOTE: Anyone selling or giving used oil directly to someone who burns used oil is also considered a used oil marketer and must comply with the marketer requirements in Title 128, Chapter 7.

Requirements for marketing specification and off-specification used oil:

Marketers of Specification Used Oil must:

- Apply for a NDEQ hazardous waste identification number (marketers must notify NDEQ of used oil activities even if they already have an identification number).
- Analyze the used oil to prove it meets the specifications as listed in the 'Contaminant Levels for Specification Used Oil' table.
- Keep a record of the analysis for three years.

- Keep an operating log for three years that records the following information:
 1. Name and address of the facility sending or receiving the shipment.
 2. The quantity of used oil delivered or received.
 3. The date of shipment or delivery.
 4. A cross reference to the analysis showing that the oil meets the specifications.

Marketers of Off-Specification Used Oil must:

- Apply for a NDEQ hazardous waste identification number (marketers must notify NDEQ of used oil activities even if they already have an identification number).
- Complete an invoice for each used oil shipment, and send to the receiving facility
- Keep copies of all invoiced and notification certifications either sent or received.
 1. The marketer must keep a copy of each invoice for three years from the date the invoice is received or prepared.
 2. The marketer must also keep a copy of each certification notice received or sent for three years from the date of the last used oil marketing transaction.
- Obtain a one-time written and signed notice from the burner or other marketer certifying that:
 1. The burner or marketer notified of used oil activities.
 2. The burner will burn the off-specification used oil in an industrial furnace, industrial boiler or utility boiler.

For more detailed information about used oil marketing requirements, refer to Title 128, Chapter 7.

NOTIFICATION REQUIREMENTS

INDIVIDUALS WHO NEED TO NOTIFY NDEQ:

- Marketers of off-specification used oil need to file a notification of used oil activities. Even if they already have an identification number for other purposes, they must also notify as a used oil fuel marketer. Their NDEQ/EPA identification number will remain the same.
- Generators who market used oil directly to a burner.
- The business, which first claims the oil, meets the specification. (Refer to the Maximum Contaminant Levels Table in this guidance).
- Burners of off-specification used oil.

INDIVIDUALS WHO DO NOT NEED TO NOTIFY NDEQ:

- Households.
- Burners who burn specification oil that they generate.
- Burners who receive oil from marketers who first claimed the oil meets the specification.
- Burners who burn used oil in space heaters provided they comply with Title 128 and Title 129 regulations (refer to the Types of Approved Burning Devices of this guidance).
- Generators who give used oil to an 'intermediary' (e.g. someone who then gives the used oil to a burner).

**FOR MORE INFORMATION PLEASE CONTACT
NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE MANAGEMENT SECTION
(402) 471-4210**

REFERENCES:

Nebraska Department of Environmental Quality:

Waste Service Providers Directory

Title 132 - Integrated Solid Waste Management Regulations

Title 128 – Nebraska Hazardous Waste Regulations

Title 129 - Nebraska Air Quality Regulations

Landfill Ban Information, Yard Waste, Waste Oil, and Lead Acid Batteries

Nebraska Environmental Protection Act & Related Laws

US EPA Region 7

TSCA/PCBs

913/551-7518

SPILL NOTIFICATION - NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

Business hours - (402) 471-2186

After hours/Weekends/Holidays - (402) 471-4545

USEFUL WEBSITES:

Titles 128, 129, & 132: *http://www.deq.state.ne.us/* click on “Laws and Regulations”