Used Oil Storage & Handling
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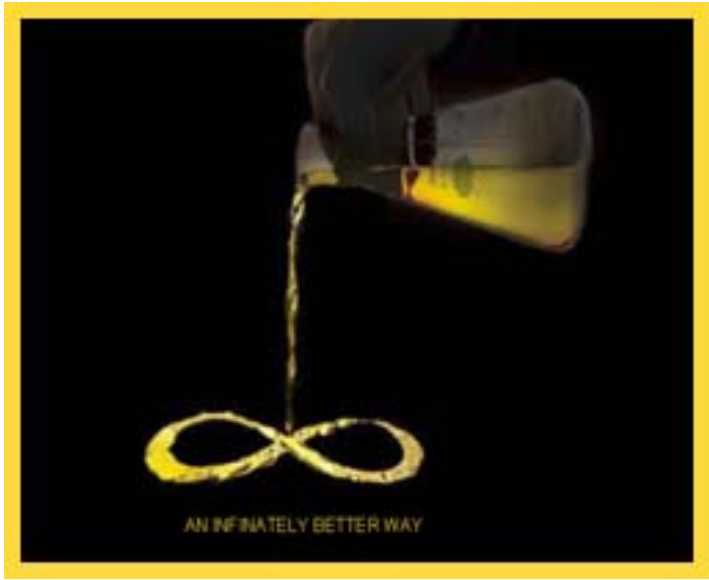
Overview

Used oil can be returned to the market in a variety of forms as part of a cycle that can be endlessly repeated. Recycling is a better solution for used oil and is recommended by the EPA and U.S. Department of Energy.

Management of Used Oil

- 1.4 BB gals of used oil generated in US yearly

- Estimated that 200 MM gals are improperly managed
  - Put down the drain
  - Dumped onto the ground
  - Sent out in the trash



Management of Used Oil

- Used Oil Management Standards (40 CFR 279)
- - Impose requirements related to:
- 1) Storage
- 2) Transportation
- 3) Processing
- 4) Re-Refining
- 5) Burning

Recycling Waste Oil and the EPA

The EPA requires proper management of used oil to:

- **Protect human health**
- **Protect the environment**
- **Protect against liability for environmental damages**
- **Re-use (rather than waste) a valuable resource**

The five proper recycling methods recognized by the EPA are:

- **Waste Oil Re-refining**
- **Direct burning (heaters at shops)**
- **Processing (e.g. creating RFO)**
- **Slipstreaming**
- **Supplementing diesel fuel**

Examples of Used Oil

Engine Oil Synthetic Oil Transmission Fluid

Compressor Oil Electrical Insulating Oil

Metalworking Fluids Hydraulic Fluids

NOT examples of Used Oil

- Tank Bottoms from virgin oil tanks
- Fuel Oil spill clean up
- Antifreeze
- Vegetable Oil
- Animal Oil

Used Oil Recycling

Label Properly

- Regulations require containers of used oil to be marked as “used oil”
- It is improper to not have them labeled “used oil”
- It is improper to have the containers labeled with the previous contents information
- Residue last contained could create a hazardous waste

Used Oil Recycling

safety-kleen
WITHOUT A DOUBT.

Container Integrity

- **Be sure containers are free of defects**
- **Be sure containers have the integrity to securely hold the used oil**
- **Ensure that the containers are securely sealed.**
- **It is not uncommon to see where containers have been left open and rainwater has purged used oil stored in drums onto the ground**

Used Oil Recycling

Ensure your used oil is compliant with SPCC regulations (you may have to register it)

Safe Storage

Since oil is an organic, you should store it away from inorganics such as :

- Acids

- Bases

- Oxidizers

Used Oil Service Providers

- Questions to ask your provider :

  - What is their EPA ID #
  - Where does the used oil go
  - What becomes of the used oil
  - Can you see their haulers permit
  - What insurances do they carry

Oil and Water

The impact of wate in your oil :

- **water reduces value of oil**
- **water costs money to treat**
- **these are reasons to segregate your used oil**

Definitions

CESQG – Generates less than 220 lbs of hazardous waste in a given month

SQG – Generates more than 220 lbs but less than 2,200 lbs of hazardous waste in given month

LQG – Generates greater than 2,200 lbs of hazardous waste in given month

Definitions

- **PCB – A chemical highly regulated by the EPA**
  - **Will cause increased paperwork if detected**
  - **Will cause increased costs to treat if levels exceed regulatory limits .. ex .. Greater than 50 ppm**
  - **Rebuttal Sample .. A sample sent to a laboratory for additional analysis**

Best Practices:
Managing Oily Water

Waters Impact

- **Water in the oil reduces the profitability of your oil**
  - **Wet oil reduces what is paid for the oil**
  - **Water in your oil may result in costs to treat**
  - **These factors are reasons to clearly segregate your used oil**

Educate your employees

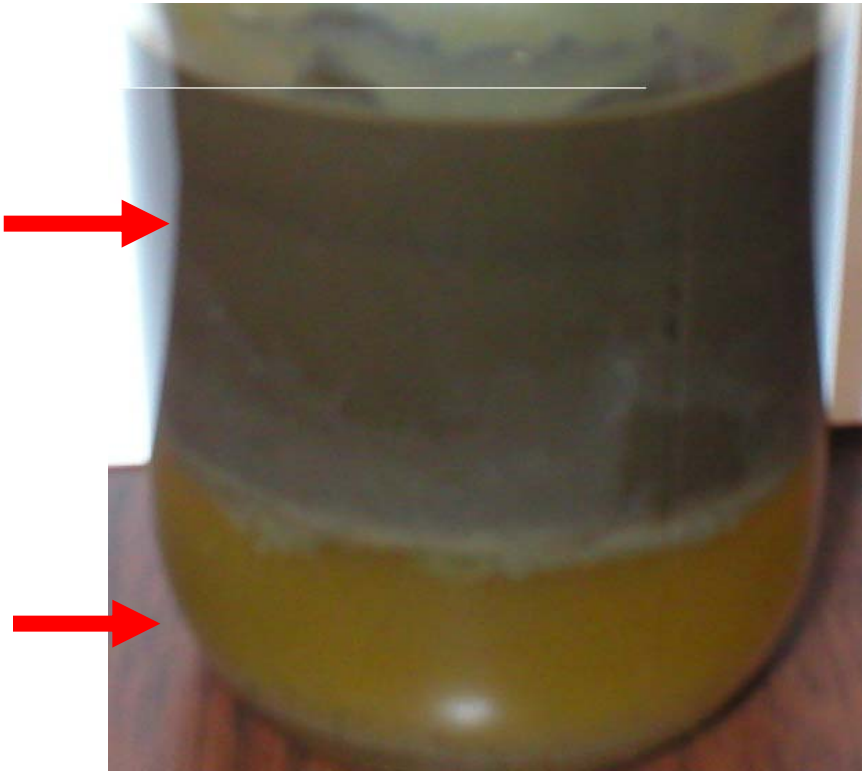
- Show the employee the benefits of handling oily water correctly
  - Leaving oily water in the tank will quickly lead to rusting of the tank's welded seams from the inside out
  - Rusted seams equals leaking tanks, an environmental hazard, costly remediation + repairs and loss of used oil revenue
- Show the employee correct water management:
  - Keep the tank opening covered and rainwater out
  - Collect leftover antifreeze from radiator services in a separate drum or tank
  - Do not put mop water in the tank…move it to your Oil/water separator or pit sump

Oil vs. Emulsion

Oil

Dark, uniform color and consistency

Oily Water Emulsion



- Separates into multiple layers
- "Milky" emulsion layer

QUESTIONS