

# **RCRA, Superfund & EPCRA Hotline Training Module**

**Introduction to:**

**Used Oil**  
**(40 CFR Part 266, Subpart E, and Part 279)**

**Updated October 1999**

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# USED OIL

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## 1. INTRODUCTION

This training module reviews the various regulatory requirements associated with used oil management. Congress passed the Used Oil Recycling Act (UORA) in 1980, requiring EPA to address the hazards posed by used oil, and develop a regulatory scheme to ensure proper management and disposal practices. The provisions of the UORA were incorporated into §3014 by the Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act (RCRA); however, used oil emerged as a separate issue apart from hazardous waste. In developing regulations for used oil, EPA has endeavored to balance the RCRA mandate to protect human health and the environment with the RCRA mandate to conserve resources through used oil recycling.

On November 29, 1985, EPA developed a used oil program that primarily regulated used oil recycled by being burned for energy recovery. These regulations were codified in Part 266, Subpart E. To fulfill the statutory requirement of RCRA §3014, EPA finalized on September 10, 1992, standards establishing requirements for generators, transporters, transfer facilities, collection centers, processors and re-refiners, burners, and marketers in 40 CFR Part 279. The rule also included provisions for cleanup in the case of a spill or release of used oil. The old program in Part 266, although superseded on the federal level by Part 279, remains in effect in many authorized states. As a result, some states are operating under the present program and others are operating under the former program. For this reason it is critical to be well-versed in both used oil programs.

The goal of this training module is to provide an overview of the used oil management program and to explain the different regulatory scenarios that can apply to used oil. The module begins by briefly tracing the developmental history of the regulations concerning used oil. A summary of the present used oil management program, as well as a brief summary of the former program, provides a basic comparison and introduction to both programs. After you complete the training session, you should be able to:

- Distinguish between the used oil management standards of Part 279 and the former used oil regulations under Part 266, Subpart E
- Identify the different types of used oil handlers and their requirements under the used oil management standards, and summarize the requirements for the used oil handlers regulated under the former program
- Explain the difference between on- and off-specification used oil
- Distinguish between the recycling presumption and the rebuttable presumption

- Describe how the present regulations will become effective in both authorized and unauthorized states
- Explain under what circumstances used oil filters may be disposed of as nonhazardous
- Describe the four pathways of potential regulation of used oil under the former program and compare differences with the present used oil management standards.

## 2. REGULATORY SUMMARY

This summary of the regulatory provisions affecting the management of used oil for the former and present used oil programs provides some basic references and definitions which will be encountered throughout the module. The present program, promulgated in the September 10, 1992, Federal Register (57 FR 41566), is codified in Parts 261 and 279. Under this program, used oil is defined as any oil that has been refined from crude oil (or synthetic oil), that has been used, and as a result of such use is contaminated by physical or chemical impurities. Types of oils included in this definition are spent automotive lubricating oils, hydraulic fluids, compressor oils from refrigeration units, and metal working oils. The former used oil program defined used oil similarly, except that synthetic oils were not explicitly included in the definition.

Though the former program was significantly narrower in scope than the present program, several concepts were retained through the transition of the programs and will be discussed in more detail later in the module. Although the former program is no longer in the CFR, the preamble to the final rule promulgated in the November 29, 1985, Federal Register (50 FR 49164), provides useful background and regulations that are still in effect in many states. The following discussion in Section 2.1 addresses the history and background of the used oil regulations.

### 2.1 HISTORY AND BACKGROUND

RCRA §3014 required EPA to decide whether or not to list used oil as regulated hazardous waste under RCRA and to establish standards applicable to used oil recycling. On November 29, 1985, EPA issued a proposed rule to list all used oil as hazardous waste, including petroleum-derived and synthetic oils (50 FR 49164). On the same day, management standards were proposed for recycled used oil and final regulations were issued prohibiting burning off-specification used oil in nonindustrial boilers and furnaces. By November 19, 1986, EPA decided not to list used oil, primarily because of the possibility that characterizing used oil as a hazardous waste might discourage or hinder recycling practices (51 FR 41900).

A 1988 court decision required EPA to reconsider listing used oil based on the technical criteria for listing waste specified in the statute, rather than the effects listing might have on the competing goal of recycling. Consequently, a supplemental proposed rule published in the Federal Register on September 23, 1991, offered three options for regulating used oil recycling (56 FR 48000). The first option was to identify all used oils as listed hazardous waste under RCRA. Alternatively, EPA could have designated only certain used oils (primarily the nonindustrial ones) as hazardous. The third option was

to promulgate basic management standards for used oil, and only categorize used oil as RCRA hazardous waste when disposed.

Prior to making a final selection of one of the three approaches to recycled used oil regulation, the final rule of May 20, 1992, stated that used oil destined for disposal would not be listed as a hazardous waste (57 FR 21524). EPA said that most used oil has the potential to be recycled, either through re-refining or burning for energy recovery, and that when destined for disposal, the existing network of regulations provides adequate protection from plausible mismanagement scenarios. Additionally, an exclusion was added under §261.4(b)(13) stating that certain used oil filters that have been properly drained may be disposed of as nonhazardous (see Section 3.1 of this module for discussion). The Agency deferred the listing decision on used oil destined for recycling at this time and any decision on management standards for used oil.

On September 10, 1992, EPA promulgated both a final listing decision for recycled used oil and management standards for used oil pursuant to RCRA §3014 (57 FR 42566). The Agency decided not to list recycled used oils because the management standards issued in this rulemaking would adequately protect human health and the environment. These standards affect generators, transporters, burners, marketers, processors, and re-refiners of used oil. The management standards were codified as Part 279. In this rule, the Agency stated that there is a presumption that all used oil will be recycled until the used oil is disposed of or sent for disposal (57 FR 41578). Used oil that is disposed of will need to be characterized like any other solid waste and need to be managed as hazardous if it exhibits a characteristic of hazardous waste or if it is mixed with a listed hazardous waste.

## **2.2 CURRENT PROGRAM**

The present program hinges on the presumption that most used oil will be recycled instead of disposed. This means that virtually all used oil will be subject to the same management standards under Part 279. The former program did not make this presumption and therefore imposed variable requirements for used oil management. The current used oil regulations also expanded the requirements that used oil handlers must fulfill.

### **RECYCLING PRESUMPTION**

In the September 23, 1991, supplemental notice of proposed rulemaking, the Agency first introduced the idea of the recycling presumption (56 FR 48000). According to industry data collected by the Agency, a majority of used oil that enters the recycling system ends up being recycled either by being burned for energy recovery or by being

re-refined. These data led to the recycling presumption, which is a regulatory provision that presumes used oil will be recycled.

In cases where used oil handlers cannot recycle their used oil, the Agency proposed different criteria for rebutting the recycling presumption. In the September 10, 1992, final rule, however, EPA decided that establishing specific criteria was not feasible or necessary. Because the Agency assumes all used oil will be recycled, it is only when used oil is sent for disposal that it is no longer subject to the Part 279 standards. The recycling presumption simplifies the used oil management system by ensuring that handlers need only comply with one set of standards.

## **USED OIL V. OILY WASTE**

Used oil is defined as any oil that was refined from crude oil or any synthetic oil, and that is used and as a result of such use is contaminated by physical or chemical impurities. Used oil and waste oil are not interchangeable terms. Waste oil or oily waste does not always meet the definition of used oil. Bottom waste from an oil storage tank or virgin oil spill residue may be contaminated with impurities but still not meet the definition in §279.1 because these materials have never been used.

## **MIXTURES**

One confusing aspect of the present used oil management standards involves mixtures of used oil and other materials. This section discusses mixtures of used oil with hazardous and solid waste, as well as products, and how these mixtures are regulated. The rebuttable presumption, outlined below, begins to address mixtures of used oil and hazardous wastes.

### **Rebuttable Presumption**

Mixtures of hazardous waste and used oil ordinarily would be classified as hazardous waste. From an enforcement point of view, however, the Agency cannot always determine if used oil has been mixed with a hazardous waste, so EPA decided to use an objective test. Since hazardous spent halogenated solvents were often found to be mixed with used oil, EPA established the "rebuttable presumption" addressing halogen levels. The concept of the rebuttable presumption was established in the former regulations, and its basic premise is retained in the present program.

Used oil that contains more than 1,000 parts per million (ppm) of total halogens is presumed to have been mixed with a regulated halogenated hazardous waste (i.e., spent halogenated solvents), and is therefore subject to applicable hazardous waste regulations. A person may rebut this presumption by demonstrating, through analysis or other documentation, that the used oil has not been mixed with halogenated hazardous waste. One way of doing this is to show that the used oil does not contain



significant concentrations of halogenated hazardous constituents (50 FR 49176; November 29, 1985). If the presumption is successfully rebutted, meaning the oil is not considered to have been mixed with a regulated hazardous waste, then it will be subject to the used oil management standards instead of the hazardous waste regulations.

The Agency believes, however, that some oils can become contaminated with more than 1,000 ppm halogens just through the normal use of the oil, without actually mixing the used oil with a hazardous waste. In the present program, the Agency amended the former regulations to exempt two specific types of used oil from the rebuttable presumption. Both metalworking oils containing chlorinated paraffins and used refrigeration compressor oils containing chlorinated fluorocarbons (CFCs) are exempt from the rebuttable presumption. In other words, if a person generates one of these types of used oil, that person does not have to prove that the oil has not been mixed with a hazardous waste, even though it may contain more than 1,000 ppm total halogens. The rebuttable presumption is codified in §261.3(a)(2)(v), under the definition of hazardous waste, and in Part 279, Subpart B, under applicability, as well as under the requirements for generators, transporters, processors, and burners.

### **Mixtures of Used Oil and Hazardous Waste**

The present regulations, like the former, require that mixtures of used oil and listed hazardous waste continue to be regulated as hazardous waste and managed according to all applicable hazardous waste standards. This straightforward principle for mixtures of used oil and listed waste does not apply to mixtures of used oil and characteristic hazardous waste. The present regulations lay out two scenarios for mixtures of used oil and characteristic waste. The first scenario involves used oil that is mixed with a waste that is hazardous solely because it exhibits the characteristic of ignitability. If the resultant mixture is no longer ignitable, then the mixture can be managed as used oil, despite the inherent characteristics that the used oil may bring to the mixture (§279.10(b)(2)(iii)). The second scenario involves used oil mixed with a waste that is hazardous because it exhibits one or more characteristic of hazardous waste (other than just ignitability). The resultant mixture must no longer exhibit any characteristics if it is going to be managed as used oil (§279.10(b)(2)(i) and (ii)).

The difference in the two scenarios is critical because used oil will often inherently exhibit a characteristic from its normal use. For example, used oil that displays the toxicity characteristic for lead (D008) is mixed with an ignitable hazardous waste (D001). Section 279.10(b)(2)(iii) allows this mixture to remain under the umbrella of used oil regulation even if it fails the Toxicity Characteristic Leaching Procedure (TCLP) for lead (D008), as long as the mixture is no longer ignitable. On the other hand, if the D008 used oil had been mixed with a reactive waste (D003), then the resultant mixture would need to be void of both characteristics in order to be managed as used oil. Otherwise, the mixture would need to be managed as hazardous waste.

## **Mixtures of Used Oil with Solid Waste**

Unlike mixtures with hazardous waste, any mixture of used oil with solid waste or any material contaminated with or containing used oil is regulated under the Part 279 standards as used oil. Once the used oil has been properly drained or removed from the mixture to the extent possible such that no visible signs of free-flowing oil remain in or on the solid waste, the solid waste is no longer subject to regulation as used oil, but rather is classified as a solid waste. Any used oil separated from this type of mixture remains subject to all applicable Part 279 standards. The exception to this is that a solid waste from which free-flowing used oil has been removed is still subject to regulation as used oil if it is burned for energy recovery.

## **Mixtures of Used Oil with Products**

The blending of used oil generated in diesel-powered vehicles with diesel fuel is excluded from the processing and re-refining standards when the mixture is used in the generator's own vehicles as a fuel. The mixture itself is also specifically excluded when used in this manner. The practice is recommended by diesel engine manufacturers and the Agency has found that the resultant fuel is low in toxic contaminants. In addition, as stated earlier, diesel and marine engines are not covered by the standards for used oil burners.

## **Other Mixtures**

Used oil that is considered to be a hazardous waste solely because it exhibits one or more characteristic of hazardous waste (§§261.21-261.24), because it has been mixed with hazardous waste subject to the special provisions of §261.5 for conditionally exempt small quantity generators (CESQGs), or because it has been mixed with household hazardous waste is subject to regulation as a used oil, not as a hazardous waste.

## **MATERIALS DERIVED FROM USED OIL**

Section 279.10(e) dictates when a material is no longer subject to regulation as used oil. Specifically, materials that are reclaimed from used oil and are used beneficially without being burned for energy recovery are not considered used oil and are not subject to the Part 279 standards. These materials are also not considered solid waste and would, therefore, not be subject to regulation under any part of RCRA. Materials produced from used oil that are burned for energy recovery are regulated as used oil and are subject to Part 279. Materials derived from used oil that are disposed of or used in a manner constituting disposal are not considered used oil, but instead are considered solid wastes and subject to all applicable solid and hazardous waste standards.

## CONDITIONAL EXEMPTIONS

As with any rule or set of regulations, there are always some exceptions. Along these lines, some types of used oil are conditionally exempt from the Part 279 standards when managed in accordance with §279.10.

### Distillation and Tank Bottoms from Exempt Mixtures

Distillation bottoms from re-refining used oil are excluded from Part 279 regulation and hazardous waste regulation when the bottoms are used as ingredients in asphalt paving and roofing materials. Because data indicate that these distillation bottoms do not exhibit the toxicity characteristic and the practice is common in the industry, the Agency has decided not to regulate them when used in this manner.

### Crude Oil Pipelines

Used oil that is inserted into a crude oil pipeline is not subject to Part 279 standards once the used oil enters the pipeline or when it is placed in a stock tank connected to the pipeline. The Agency believes that once introduced into a pipeline, used oil does not pose a greater threat of a release than either crude oil or natural gas liquids. Therefore, owners and operators of natural gas and crude oil processing plants can introduce used oil into their pipelines or stock tanks that are connected to the pipeline without meeting Part 279 standards. Prior to placement in the pipeline, however, the oil is subject to all applicable used oil management standards. A mixture of used oil and crude oil or natural gas liquids where the amount of used oil is less than one percent the total volume of the mixture is not subject to regulation during storage and transportation prior to insertion into the pipeline.

### Petroleum Refineries

In the May 4, 1994, Federal Register (59 FR 10550), the pipeline exemption was expanded to include certain activities at petroleum refining facilities. For instance, a mixture of crude oil or natural gas and less than one percent used oil is not subject to Part 279 if the mixture is inserted into the refining process prior to crude distillation or catalytic cracking (these are the first steps in petroleum refining where crude oil is separated and impurities are removed). This provision is similar to the exemption for crude oil or natural gas pipelines. At a petroleum refinery, as crude oil is piped in, used oil may be inserted into a petroleum refinery process unit before distillation or catalytic cracking without being subject to Part 279, as long as the used oil constitutes less than one percent of the crude oil feed at any given time. Used oil that is inserted into the refining process after distillation or catalytic cracking would only be exempt if the used oil meets the specifications in §279.11. In both of the situations noted above, prior to insertion the used oil is subject to any applicable Part 279 requirements. Another situation where used oil may be exempt from Part 279 at a petroleum refining facility is

when used oil is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations. On the other hand, if the used oil is intentionally introduced to a hydrogen recovery system, it will not be exempt. Incidental occurrences may include drips, leaks, and spills from compressors, valves, and pumps.

## Wastewater

Wastewaters contaminated with de minimis quantities of used oil are also excluded from the present requirements because these wastewaters are regulated by the Clean Water Act. De minimis quantities of used oil are small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations, or when small amounts of oil are lost to the wastewater treatment system during washing or draining. Any used oil that is recovered from wastewater, however, falls under full regulation as used oil.

## PCBs

Used oils that are contaminated with PCBs in concentration of 50 ppm or greater are subject to regulation under the Toxic Substances Control Act (TSCA) (§279.10). EPA believes that the current requirements in TSCA for PCB-contaminated wastes adequately control the management and disposal of used oils containing PCBs. Therefore, used oil that contains 50 ppm or more of PCBs is not subject to the requirements of Part 279.

## SPECIFICATION

For purposes of regulating used oil burned for energy recovery, the Agency made a distinction between specification and off-specification used oil. Specifications are a set of criteria intended to be protective of human health and the environment in all circumstances. A used oil that meets the specification levels is comparable to a product fuel oil in terms of regulation. Used oil that is tested and is not within these set parameters is termed off-specification. Once used oil has been shown not to exceed specification levels, it is not subject to the restrictions on burning in Part 279, Subpart G. Off-specification used oil can only be burned for energy recovery in industrial and utility boilers, industrial furnaces, used oil-fired space heaters, and hazardous waste incinerators regulated under Part 264/265, Subpart O. The first person to document that the used oil being burned for energy recovery meets the specification criteria is considered the marketer of the used oil and is responsible for meeting the recordkeeping requirements of §§279.72, 279.73, and 279.74(b).

## Criteria

Section 279.11 outlines the specification levels and prescribes the amount of regulation that applies to specification and off-specification used oil under Part 279 when the used oil is to be burned for energy recovery. Both types of used oil may be burned for energy recovery, but off-specification used oil is subject to certain prohibitions. Used oil is considered to be off-specification if it has a flash point below 100 degrees Fahrenheit, or contains more than the allowable levels of any of certain constituents.

The following table lists the allowable levels of constituents in used oil. Used oil exceeding any of these levels is considered off-specification.

<u>Constituent</u>	<u>Allowable Level</u>
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	4,000 ppm maximum

## Blending

Blending used oil to meet specification is permitted, since EPA believes blended oil poses no greater hazard than dirty virgin fuel oil. Used oil with over 1,000 ppm total halogens, however, may not be blended to lower the halogen level below 1,000 ppm in order to apply the rebuttable presumption and call it nonhazardous; the rebuttable presumption must be applied to the used oil before it is blended with other materials. A used oil handler blending used oil for purposes of meeting specification would be subject to the processor and re-refiner regulations in Part 279, Subpart F.

## GENERAL PROHIBITIONS

Section 279.12 codifies specific prohibitions on the management of used oil. Used oil cannot be stored in a surface impoundment or waste pile, unless the unit is subject to regulation under Parts 264 and 265. Also, the use of used oil for road oiling or as a dust suppressant is prohibited, unless a state petitions EPA to allow this activity provided it meets the specified conditions in §279.82. The state must demonstrate in the petition how the state's program will minimize the environmental impacts of such activity. Another general prohibition addresses burning off-specification fuel in certain units. Burners may only burn used oil in an industrial boiler or furnace as defined in §260.10, in a hazardous waste incinerator subject to regulation under Part 264/265, Subpart O, or in a used oil-fired space heater. When burning in a space heater unit, the owner or operator must either generate the oil he burns himself or receive it from do-it-yourself oil changers. The maximum capacity of the device may not exceed 0.5 million Btu per hour and combustion gases must be vented to the ambient air (§279.12(c)(2)(iii)).

## USED OIL GENERATORS

A used oil generator is any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation. Because the generation of used oil is so widespread, with generators ranging from multinational corporations to local service stations, used oil generators are subject to limited standards under Part 279, Subpart C. The recycled used oil standards place basic requirements on storage and require compliance with the rebuttable presumption for all generators of used oil.

### Exceptions

Certain used oil generators are not subject to the regulations in Subpart C of Part 279. These include the following: (1) household do-it-yourselfers (DIYs) — individuals who generate used oil from the maintenance of their personal vehicles or other household sources; (2) vessels at port or at sea; (3) generators after mixing diesel fuel and used oil to be used in their own vehicles as a fuel; and (4) farmers who, in a month, generate no more than 25 gallons of used oil from farm vehicles or machinery (§279.20(a)).

### Storage

The primary requirements placed on generators involve good housekeeping practices for storing used oil on site. Used oil can only be stored in containers and tanks that are in good condition; i.e., free of any visible spills, leaks, structural damage, or deterioration (§279.22(b)). Containers, aboveground tanks, and fill pipes used to transfer used oil into underground storage tanks need to be clearly marked with the words "Used Oil" to prevent incidental mixing of used oil with hazardous waste or other materials. Used oil can also be stored in units already subject to regulation under Parts 264 and 265, such as lined surface impoundments, and in underground storage tanks (USTs) subject to regulation under Part 280. Generators of used oil have no time or quantity limitations on storing used oil because the Agency feels that used oil is a marketable commodity; therefore, there is an incentive for the generator to send used oil off-site for recycling. In the event of a release from one of these units to the environment, the generator must comply with the response measures set forth in §279.22(d) which include stopping and containing the release, properly managing any used oil or contaminated materials, and repairing or replacing the leaking container or tank. Releases from underground storage tanks that are subject to UST corrective action are regulated under Part 280 standards for USTs, not under Part 279.

### Burning

Generators can burn their own used oil and DIY-generated used oil in used oil-fired space heaters without complying with regulations for used oil burners in Part 279,

Subpart G. The heaters must have a maximum capacity of 0.5 million Btu per hour and the combustion gases must be vented into the ambient air.

## **Processing**

Used oil generators that process or re-refine used oil are also subject to regulation under Part 279, Subpart F. There are some activities, however, that a generator may engage in that would not be considered processing, and thus not subject to Subpart F. There are five activities that a generator may perform and not be considered a processor as long as the used oil was generated on-site and it is not being sent directly off-site to a burner. A generator may (1) filter, clean, or recondition used oil to be reused by the generator; (2) separate used oil generated on-site from wastewater to meet Clean Water Act regulations prior to discharge of the wastewater; (3) capture used oil droplets in the air by a mist collector to make in-plant air amenable for recirculation; (4) drain or remove used oil from materials containing or contaminated with used oil; and (5) filter, separate, or recondition used oil before burning it in a space heater on-site. The March 4, 1994, Federal Register, amended the generator requirements to clarify that these activities would not subject a generator to the processing regulations in Subpart F (59 FR 10550).

## **Off-Site Shipments**

Although most transportation of used oil is regulated under Part 279 standards, a generator is allowed to transport some of his/her own used oil and used oil collected from DIY generators provided the following conditions are met: (1) the generator must bring the used oil to either an approved collection center or self-owned or -operated aggregation point; (2) the used oil must be delivered in shipments of 55 gallons or less; and (3) the used oil must be transported in a vehicle owned by the generator or an employee of the generator. The generator can also have his used oil transported by a transporter without an EPA identification number if a tolling arrangement is made in accordance with the regulations in §279.24(c). In all other situations, generators must ensure that their used oil is transported by a transporter who has obtained an EPA ID number.

## **USED OIL COLLECTION CENTERS AND AGGREGATION POINTS**

To encourage and facilitate the recycling of used oil from small sources, the Agency created reduced requirements for used oil collection centers and aggregation points in Part 279, Subpart D.

### **Do-It-Yourselfer Used Oil Collection Centers**

Under Part 279, Subpart D, there are two types of used oil collection centers, DIY used oil collection centers and used oil collection centers. A DIY used oil collection center is

any site or facility that stores or accepts or aggregates used oil collected only from people who generate used oil in their homes (i.e., household DIY used oil generators). Owners and operators of DIY used oil collection centers need only comply with the generator standards in Part 279, Subpart C.

### **Used Oil Collection Centers**

The present regulations define a used oil collection center to mean any site or facility that is registered, licensed, permitted, or recognized by a state, county, or municipal government to manage used oil and accept, aggregate, or store used oil collected from used oil generators regulated under Part 279, Subpart C. The used oil generator must deliver the used oil in shipments of 55 gallons or less. Used oil collection centers may also accept used oil from household do-it-yourselfers.

### **Used Oil Aggregation Points**

A used oil aggregation point means any site or facility that accepts, aggregates, or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point. The used oil must be transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

## **USED OIL TRANSPORTERS AND TRANSFER FACILITIES**

A used oil transporter is any person who transports used oil, collects used oil from more than one generator and transports the collected used oil, or owns or operates a used oil transfer facility. Used oil transporters may consolidate or aggregate used oil for the purposes of transporting and may conduct incidental processing operations that occur during the normal course of transportation (e.g., separating water from used oil that has settled during the aggregation or transportation process). Transporters who otherwise produce used oil-derived products or make these products more amenable for production are considered used oil processors.

Before the present used oil management standards, transporters of used oil were not regulated under RCRA. Now used oil transporters must not only notify EPA of their activities, but must also track their shipments and maintain compliance with the rebuttable presumption. The management standards of Part 279, Subpart D are similar to regulations for hazardous waste transporters in many respects, including a provision for used oil transfer facilities.

Like generators, used oil transporters who engage in other used oil management practices must follow the applicable standards in Part 279. For example, a transporter who processes used oil must also comply with the requirements for used oil processors and re-refiners in Part 279, Subpart F, including transporters who blend used oil with



virgin oils to meet specification. Transporters, however, may conduct incidental processing operations and consolidation for the purposes of transportation in compliance with §279.41 without being considered a processor or re-refiner.

## **Storage**

As with the hazardous waste regulations, used oil transporters may store used oil at transfer facilities for a limited time during the normal course of transportation. EPA defines transfer facility as any transportation-related facility including loading docks, parking areas, and other areas where shipments of used oil are held for more than 24 hours and less than 35 days during the normal course of transportation. Transfer facilities that store used oil for more than 35 days are subject to Part 279, Subpart F, standards for used oil processors and re-refiners. Facilities that store used oil for less than 24 hours do not meet the definition of used oil transfer facility and would not be subject to these requirements.

Transfer facilities and transporters can store used oil in the same units as generators, but must supply secondary containment for the storage units in accordance with §279.45. If a release occurs during the course of transportation, the transporter is required to take "appropriate and immediate action to protect human health and the environment" (§279.43(c)).

## **Rebuttable Presumption**

The used oil management standards require transporters to apply the rebuttable presumption to all shipments of used oil. They must determine the total halogen content of used oil prior to accepting a shipment for transport.

If the total halogen content exceeds 1,000 ppm, the used oil is presumed to have been mixed with a halogenated hazardous waste. If the presumption of mixing can be rebutted by documenting the source of the halogens, then the used oil can be managed as used oil. Otherwise, the used oil contaminated with halogens is regulated as hazardous waste under applicable solid and hazardous waste requirements.

## **BURNERS OF USED OIL FUEL**

The used oil program only regulates the burning of off-specification used oil. The burning of used oil that meets the specification criteria in §279.11 is not regulated by the burner standards in Subpart G. Off-specification used oil fuel can only be burned in the following three types of devices:

- Industrial furnaces — enclosed devices that use controlled flame combustion to burn used oil or hazardous waste (limited to the 12 specific devices listed in §260.10)

- Boilers — enclosed devices that use controlled flame combustion to burn used oil or hazardous waste for energy recovery (must meet the four criteria listed in §260.10)
- Hazardous waste incinerators subject to regulation under Part 264/265, Subpart O.

By limiting the burning of off-specification used oil to these three types of devices, the present program prohibits the burning of used oil in nonindustrial boilers, including boilers located at single or multifamily residences; commercial establishments such as hotels, office buildings, or laundries; and institutional establishments such as hospitals, colleges, prisons, or churches.

The other major provision applicable to burners under Part 279 involves storage. The storage requirements for burners are essentially the same as those for generators discussed earlier; however, storage areas at burner facilities must be equipped with secondary containment in accordance with §279.64.

## **USED OIL FUEL MARKETERS**

The current regulations define a used oil fuel marketer as any person who either (1) directs a shipment of off-specification used oil from that facility to a used oil burner, or (2) first claims that the used oil going to be burned for energy recovery meets the specification requirements.

Used oil marketers can be divided into two categories: those that market off-specification used oil and those that market oil that meets specification. For each category different regulations apply under Part 279, Subpart H. The used oil fuel marketer requirements are applicable to anyone, including a generator, transporter, processor, or burner of used oil, who engages in marketing activities or who first claims that the used oil meets the specification criteria. Under the present definition of marketer, it is impossible for someone to only be a marketer without engaging in any other used oil management practices. For example, a used oil generator who first directs a shipment of off-specification used oil to a burner is a marketer as well as a generator and must comply with the applicable requirements of Part 279, Subparts C and H.

### **Off-Specification Used Oil Marketers**

Used oil marketers handling off-specification oil are subject to the prohibitions found in §279.71, as well as analysis of used oil fuel and notification to EPA of location and description of used oil management activities. In addition, they must comply with the

tracking requirements, including their EPA ID number, the name and address of both the marketer and the receiving facility, the quantity delivered, and the date of shipment.

Prior to initiating the first shipment to a burner or other marketer, a marketer must acquire a one-time written and signed certification that the burner or marketer has notified EPA of all used oil management activities and, if a burner, that the used oil will only be burned in one of the allowable devices listed in §279.12(c). A marketer must keep copies of all invoices for three years from the date received or prepared. Also, copies of all off-specification certifications from other burners or marketers must be kept for three years from the date of the last transaction with that person or facility.

### **Specification Used Oil Marketers**

Used oil marketers handling specification used oil must analyze the used oil fuel to show that it meets specification, as well as notify EPA if the marketer is the first one to claim the oil meets specification. An operating log must be kept for each shipment, including the name and address of the receiving facility, quantity, delivery date, and cross-reference to the record of analysis to show it meets specification. Records of all waste analysis documentation and operating logs must be kept for three years.

## **USED OIL PROCESSORS AND RE-REFINERS**

Before the present used oil management standards were promulgated, used oil processors and re-refiners were virtually unregulated. The only requirement placed on them was that, like all other solid waste generators, they were required to make a hazardous waste determination regarding any residues that were disposed. The present regulations greatly increased the requirements for processors and re-refiners by mirroring standards for hazardous waste treatment, storage, and disposal facilities (TSDFs). These requirements include obtaining an EPA identification number and complying with a used oil version of general facility standards.

### **Processing**

Processing means any chemical or physical operation designed to produce or facilitate the production of fuel oils, lubricants, or other used oil-derived products from used oil. These operations include but are not limited to blending used oil with virgin petroleum products, blending used oils to meet fuel specification, filtration, simple distillation, chemical or physical separation, and re-refining. Processing, however, does not include generators processing used oil generated on-site for use on-site. If transporters or transfer facilities filter oil from oil-bearing transformers before returning it to its original use, they would not be subject to processing standards.

## **Storage**

Processors and re-refiners are subject to the same storage standards, including secondary containment, as transporters or burners (§279.54). Processors and re-refiners, however, have no time or quantity limitations on storing used oil.

There is one major difference in the storage requirements for processors and re-refiners. Processing facilities must comply with stringent closure requirements (§279.54(h)). Both aboveground tanks and containers need to have all used oil residues removed and any units still containing used oil or residues must be taken off-site. The owner and operator must decontaminate or remove used oil residues from all buildings, structures, and soils at the site. If the owner and operator cannot demonstrate the absence of contaminated soils at the time of closure, then the facility must be closed in accordance with hazardous waste landfill standards (§279.54(h)(1)(ii)). Because the contaminated equipment will ultimately be disposed of, hazardous waste regulations would apply if the equipment exhibits a characteristic of hazardous waste.

## **General Facility Standards and Recordkeeping**

Facilities that conduct processing are subject to general facility standards, similar to interim status TSDFs (§279.52). These requirements include general facility maintenance, fire and explosion prevention, emergency communication systems, and release response plans. Every processing facility must have a contingency plan to minimize the hazards to human health and the environment in the event of a fire, explosion, or release of used oil.

Processors of used oil are also subject to tracking, planning, and recordkeeping requirements: (1) the owner and operator must make a record of each shipment of used oil that the facility accepts for processing in accordance with §279.56; (2) the owner and operator must prepare an analysis plan that describes the procedures that will be used in rebutting the presumption and determining if the used oil meets specification requirements; and (3) the owner and operator must submit a biennial report to the Regional Administrator containing information about the quantity of used oil processed and the specific processes employed.

## **Rebuttable Presumption**

The rebuttable presumption requirements for processors and re-refiners are similar to the transporter requirements. Processors must determine the total halogen content of the used oil prior to accepting the used oil shipment in accordance with §279.53. If the presumption cannot be rebutted then the shipment is considered to be hazardous waste and must to be managed by a hazardous waste TSDF.

## 2.3 FORMER PROGRAM

The former used oil program in Part 266, Subpart E, is narrower in scope than the present used oil management standards. The program regulates used oil being burned for energy recovery, so the used oil handlers subject to regulation under this program were marketers and burners of off-specification fuel. There were no requirements for generators, transporters, collection centers, or processors/re-refiners.

Many of the basic concepts from the former program have been retained in the current program. For example, the rebuttable presumption, on- and off-specification used oil, prohibitions on burning off-specification used oil, and the regulations for marketers and burners are carried over from the former used oil management program. Essentially, the regulations for marketers and burners are recodified in Part 279, Subparts G and H, but for the sake of clarity, citations for Part 266, Subpart E, are used throughout this section of the module.

Unlike the present used oil program, the former used oil program does not have a recycling presumption, thus the regulation of used oil hinges upon the ultimate destination of the used oil. There are four possible routes or pathways for the management of used oil. The following section discusses these four routes or pathways.

### THE FOUR PATHWAYS

The former used oil regulations provide four options, or pathways, for final disposition of used oil. The standards to which a used oil handler is subject depend on the method of handling and the final destination of the oil.

#### Used Oil Sent for Disposal

Used oil sent for disposal can either be incinerated or land disposed. If the used oil displays a characteristic of hazardous waste, its disposal is regulated under RCRA. All applicable requirements under Parts 262 through 265 and 268 would need to be met, as well as any applicable state or local environmental regulations.

#### Used Oil That Is Recycled

According to the former regulations, used oil that is recycled in a manner other than being burned for energy recovery, and is only hazardous due to characteristics, is exempt from Parts 262 through 266, 268, 270, and 274, and RCRA §3010 notification per §261.6(a)(3)(iii). An example would be a used oil that is being re-refined.

## **Used Oil Used in a Manner Constituting Disposal**

Used oil used in a manner constituting disposal is addressed under §266.23(b). The use of waste or used oil or other material that has been contaminated with dioxin or any other hazardous waste (other than a waste identified as hazardous solely due to ignitability) for dust suppression or road treatment is prohibited. In other words, any used oil that exhibits one or more characteristic of hazardous waste, other than ignitability, is banned from use as a dust suppressant.

## **Used Oil Burned for Energy Recovery**

According to the former regulations, used oil that is burned for energy recovery is subject to regulation under Part 266, Subpart E. These requirements are briefly discussed later in this section.

## **MIXTURE RULE**

As with the present program, used oil that has been mixed with a listed hazardous waste is subject to regulation as hazardous waste and if burned must be handled in accordance with the requirements of Part 266, Subpart H, or Part 264/265, Subpart O (§261.3(a)(2)(iv)). Mixtures of used oil and characteristic hazardous waste can be managed in one of two ways, depending on whether or not the mixture exhibits a characteristic. If the resultant mixture is void of characteristics, then it can be burned as used oil under Part 266, Subpart E. If the mixture exhibits a characteristic of hazardous waste, then it must be burned as hazardous waste in accordance with the BIF standards in Part 266, Subpart H. Mixtures of used oil and characteristic waste that still exhibit a characteristic and are not burned for energy recovery are subject to all applicable hazardous waste regulations.

On the other hand, used oil that is considered to be a hazardous waste solely because it exhibits one or more characteristic of hazardous waste (§§261.21-261.24) is regulated as used oil. The used oil regulations also apply to used oil that exhibits a characteristic because it has been mixed with hazardous waste subject to the special provisions of §261.5 for conditionally exempt small quantity generators, or because it has been mixed with household hazardous waste.

## **USED OIL BURNED FOR ENERGY RECOVERY**

EPA estimates that over 800 million gallons of used oil are recycled each year, either by burning for energy recovery or re-refining. Approximately 80 million gallons are disposed of annually. Consequently, the majority of used oil regulations, particularly in this program, are focused on those who generate, market, or burn used oil for energy recovery purposes. The first question in considering regulatory requirements for burning used oil under Part 266 is applicability: is the used oil regulated under Subpart

E or is it considered hazardous waste and subsequently regulated under Subpart H? Figure 1 provides a flowchart to assist you in making this determination.

## **REBUTTABLE PRESUMPTION**

Originally, the rebuttable presumption was codified at §266.40(c). The present program only amended it slightly by adding an exemption for refrigerator compressor oils and some metalworking oils that become contaminated with halogens through normal use. Also, the present regulations extend the applicability of the rebuttable presumption to all used oil, not just used oil being burned for energy recovery.

## **SPECIFICATION**

Section 266.40(e) outlines the specification levels and prescribes the amount of regulation that applies to specification and off-specification used oil under Part 266, Subpart E. Used oil that meets specification under the former program is not covered by the burning regulations in Part 266, Subpart E, and may be burned in nonindustrial boilers and furnaces. Specification used oil is, however, subject to requirements for notification, analysis, and recordkeeping.

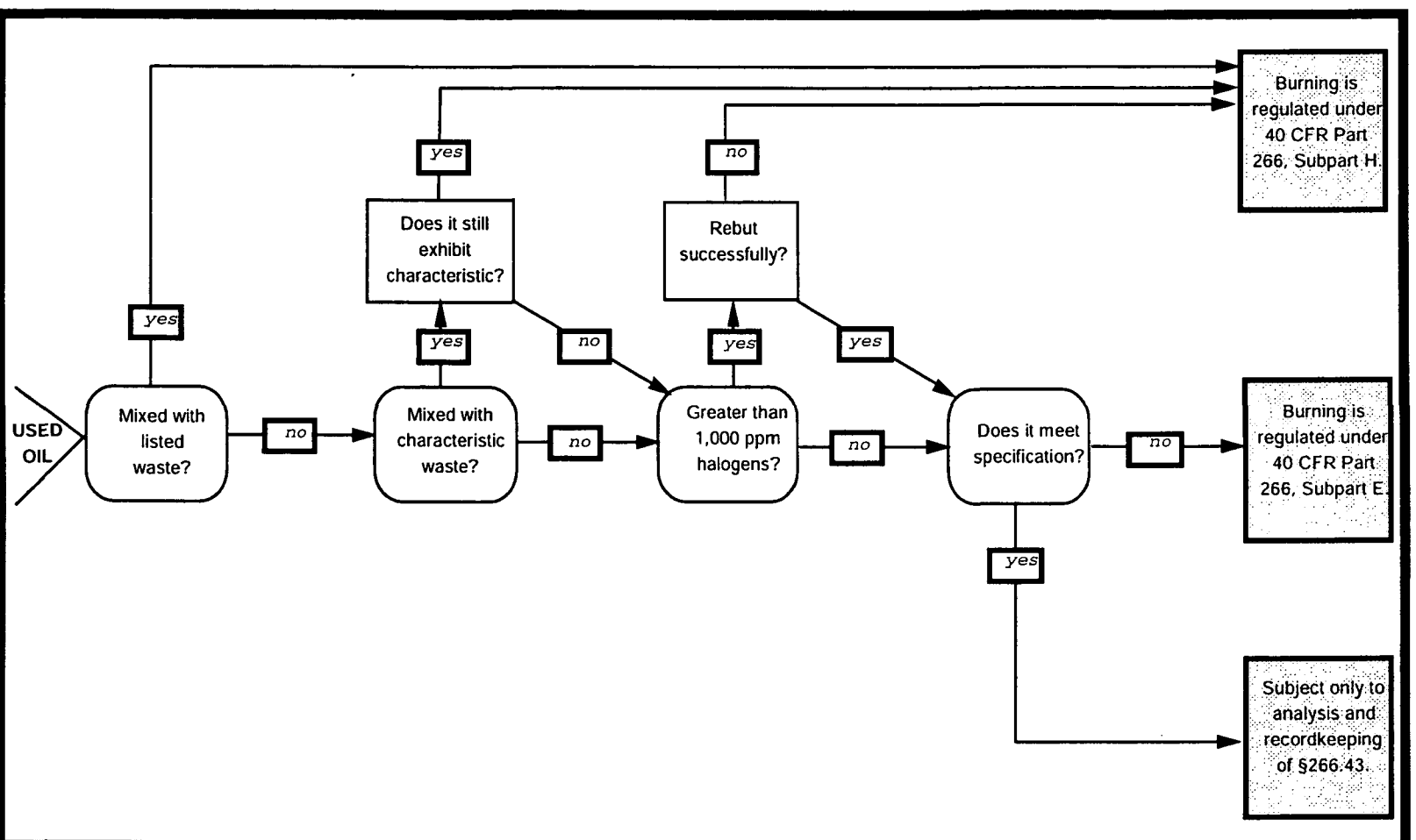
## **GENERATORS OF USED OIL**

Generators of used oil destined for energy recovery are not subject to regulation under Part 266 unless they are also marketing or burning the used oil. Generators who market used oil directly to a burner are subject to the standards applicable to marketers (§266.43). If the generator burns the used oil he or she is subject to the standards applicable to burners (§266.44). If a generator produces a used oil that meets the definition of a hazardous waste and the material is destined for disposal, the generator must comply with all applicable hazardous waste regulations.

## **MARKETERS OF USED OIL**

When EPA promulgated Part 279, it recodified the requirements for marketers of used oil, originally found in §266.43, as Part 279, Subpart H. The only difference between EPA's regulations for marketers under the present and former programs is that under the former program, it is possible for a person to be a marketer without engaging in any other regulated used oil management practices.

**Figure 1**  
**BURNING FOR ENERGY RECOVERY**  
**FORMER PROGRAM**





## BURNERS OF USED OIL

According to the former regulations, burners of used oil are subject to the general requirements and prohibitions under §266.44(b). Notification, including the location and a general description of used oil management activities, is required for all burners with only two exceptions. Neither owners and operators of used oil-fired space heaters nor burners that receive used oil that meets specification from a marketer who has previously notified EPA need to notify. For marketers of off-specification used oil, the burner must provide the marketer with a one-time written and signed notice, certifying that EPA was notified of the used oil management activities, and that the used oil will only be burned in a unit identified in §266.41(b).

Used oil fuel analysis is required for generators who are also burners unless they have other data or documentation stating that the used oil meets specification under §266.40(e). Burners who treat off-specification used oil fuel by processing, blending, or other treatment in order to meet specification under §266.40(e) also must obtain analysis or other documentation that the used oil meets the specification. Burners must keep copies of all invoices received, copies of all waste analysis information, and copies of all certification notices sent to marketers, and retain them for three years.

Used crankcase oil from diesel engines is frequently blended with virgin diesel fuel and burned in diesel engines or ship engines. Since they do not meet the definition of either a boiler or an industrial furnace, however, diesel and marine engines are not covered by these regulations (50 FR 49193; November 29, 1985).

### 3. SPECIAL ISSUES

Used oil management is itself a hot topic; in addition, there are some closely related issues that callers often ask about. The following is a summary of these corollary issues.

#### 3.1 USED OIL FILTERS

In the September 23, 1991, Federal Register, EPA discussed exempting used oil filters that had been properly drained and crushed from the definition of hazardous waste (56 FR 48000). The Agency codified this exclusion in §261.4(b)(13) (57 FR 21531; May 20, 1992). The exclusion is limited to non-terne plated filters. Terne is described as an alloy of tin and lead and may be used on filters found in heavy trucks or equipment. In practice, it is difficult to differentiate between terne and non-terne plated filters, and the generator of a used oil filter may have to contact the filter's manufacturer to obtain this information. To meet the exemption the filters must have the used oil removed from them in one of four ways. The filter may be punctured and hot-drained, hot-drained and crushed, or hot-drained and dismantled. Finally, any other equivalent hot-draining method may be used as long as it removes the oil. The term "hot-drained" means that the used oil filter is drained near engine operating temperature. EPA does not require the filter be drained for a certain length of time; however, based on previous research, 12 hours is recommended as adequate to remove the majority of the oil. If one of these four methods is followed, the filter may be disposed of as nonhazardous.

#### 3.2 TANK STORAGE OF USED OIL

Used oil is considered a "regulated substance" for the purposes of the underground storage tank (UST) program, under the definitions in §280.12. Therefore, any underground storage tank holding used oil that is destined for recycling, re-refining, or burning for energy recovery would be regulated under Part 280 standards. Any aboveground tank holding used oil under the same circumstances would be regulated under 40 CFR Part 112 (Clean Water Act regulations) or state regulations. Under the former used oil program, if a generator is storing used oil for disposal, the tank is regulated under §262.34 and the applicable portions of Part 264/265, Subpart J. Under the present program, since it is presumed used oil will be recycled, the hazardous waste tank standards are not applicable. Instead, the Part 279 tank standards and any relevant portions of the UST and Clean Water Act programs apply. The present regulations specifically refer handlers to the requirements for tank storage in these programs.

### 3.3 CERCLA LIABILITY EXEMPTION FOR SERVICE STATIONS

Since 1986, §114(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has offered a recycled used oil exemption from CERCLA liability to service station dealers (SSD), as defined in CERCLA §101(37). Because of three conditions set forth in the statute, no person could be eligible for the exemption until the present recycled used oil management standards in Part 279 were created. The first condition requires SSDs to be in compliance with management standards promulgated pursuant to §3014 of RCRA. Since no standards had been promulgated until September 10, 1992, the exemption had been previously unusable. The second condition does not allow SSDs to mix used oil with any hazardous substance. The third condition requires the SSDs to accept DIY-generated used oil for recycling. The exemption is limited to generator and transporter liability under CERCLA §§107(a)(3) and (4), so the SSD would be responsible for conducting any corrective action measures if a release of used oil occurs from any container, aboveground tank, or underground storage tank on-site.

### 3.4 EFFECTIVE DATE AND STATE AUTHORIZATION

Because the present used oil requirements were promulgated pursuant to RCRA, the regulations became automatically effective only in unauthorized states. In other words, the present regulations replaced the former ones in unauthorized states and territories (Alaska, Hawaii, Iowa, American Samoa, Northern Mariana Islands, Puerto Rico, the Virgin Islands, and Wyoming at the time) on March 8, 1993. In states that are authorized to run their own hazardous waste programs in lieu of the federal program, the Part 279 standards will not become effective until a state revises its program to adopt equivalent requirements under state law.

Some of the Part 279 provisions, however, consist of former requirements that were recodified from Part 266, Subpart E. As such, these requirements for marketers and burners remain federally enforceable in states not authorized for them and state-enforceable in those states that have already adopted them. This means four situations are possible. First, in a state that is not authorized for any portion of RCRA, all of the Part 279 regulations became effective on March 8, 1993. In states that are authorized for the base program but not the Part 266, Subpart E, requirements, Part 279, Subparts A through F and I are not enforceable until the state is granted authorization, but Part 279, Subparts G and H, remain federally enforceable. In states that are already authorized for Part 266, Subpart E, the Part 279, Subparts G and H standards remain state-enforceable, and the rest of Part 279 is not effective until the state adopts them. Finally, states with EPA-approved Part 279 programs may enforce all of the Part 279 regulations. Under §271.21(e)(2), the Agency can set a deadline by which these authorized states must incorporate the present used oil regulations into their state code.

For the present used oil regulations, this date is set at July 1, 1994, if a statutory change is not necessary, or July 1, 1995, if one is required.

The federal regulations provide requirements for used oil management; however, state regulations may be more stringent and therefore take precedence. For example, New York and Minnesota regulate used oil as a hazardous waste. Other states handle it as a "special waste."

### **3.5 USED OIL MIXTURE RULE**

On September 15, 1994, the U.S. Court of Appeals for the District of Columbia Circuit remanded the 1992 used oil mixture rule to EPA. The used oil mixture rule sets special standards for mixtures of used oil and hazardous waste. The court ruled that the mixture rule standards are less stringent than the RCRA Subtitle C regulations for other mixtures of hazardous waste. According to the ruling, EPA must determine if the mixture rule is inconsistent with RCRA, and if so, to withdraw it.

On October 30, 1995, EPA announced an administrative stay of the used oil mixture rule provisions (§279.10(b)(2)). These provisions are applicable to mixtures of used oil destined for recycling with either characteristic hazardous waste, or waste listed as hazardous because it exhibits a hazardous waste characteristic. Under the stay, these mixtures would have been subject to the regulatory requirements for other mixtures of hazardous and solid wastes, including the land disposal restrictions, until the Agency completed a new rulemaking addressing §279.10(b)(2). On January 19, 1996, however, the United States Court of Appeals for the District of Columbia Circuit vacated the administrative stay of the used oil mixture rule provisions (*Safety-Kleen Corp. v. EPA*). This action reinstated §279.10(b)(2), applicable to mixtures of used oil destined for recycling with either characteristic hazardous waste, or waste listed as hazardous because it exhibits a hazardous waste characteristic.