

Compliance Headliner

Generators Beware!

Mixed Wastestreams May Be Considered HAZARDOUS WASTE...

A
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cent
issue
of Cran-
dall's Com-
pliance Headli-
ner featured an ar-
ticle on chlorinated
solvents used for brake,
carburetor and other parts
cleaning in automotive shops.

In the article, we emphasized the risk associated with solvents such as methylene chloride, tetrachloroethylene and perchloroethylene. Specifically, if these solvents are mixed with used oil, the oil may become "contaminated" and not suitable for recycling. It only takes one drop of a chlorinated solvent to contaminate 20 gallons of oil! However, chlorinated solvents are not the only enemy when it comes to mixing wastestreams. So, for the benefit of our readers, we would like to expand on the subject, particularly in regards to transporter responsibilities versus generator responsibilities...exemptions for conditionally exempt small quantity generators...and hazardous versus non-hazardous waste.

Transporter Responsibilities

When used oil is collected from a generator, **Crandall** (and other transporters) must take a representative sample for analysis of halogen content and flashpoint. These procedures are conducted in accordance with our transporter/handling permits and to comply with regulations established for used oil that is burned as fuel. If the halogen content is above 1000 ppm, we are alerted to the potential for non-petroleum constituents in the used oil – such as chlorinated solvents. Further analysis and tests are required to determine the exact halogen level and/or constituents in the oil, in order to characterize for disposal. The second aspect of a transporter's analysis is the flashpoint – in order to be considered a non-hazardous waste, the flashpoint must be higher than 140° Fahrenheit.

One point of describing our responsibilities is to demonstrate that we too must adhere to guidelines and standards established by various governing agencies. Furthermore, Crandall's quality control and quality assurance policy improves efficiency when characterizing wastestreams collected from various generators. Recycling, treatment and/or disposal options are selected according to analytical results. *Continued on page 2.*

Generators Beware!

Mixed Wastestreams May Be Considered HAZARDOUS WASTE... (Cover Story)

Generator Responsibilities

Now let's talk about your responsibility...that is, the generator. So far, we've focused on used oil or waste oil. Waste oil includes crude and synthetic oil that has become contaminated with physical or chemical impurities from use in vehicles, electrical insulation and industrial processes. Until 1984, the EPA considered waste oil a "hazardous waste". However, you can imagine the amount of hazardous waste that was being generated by thousands of service stations, vehicle repair shops, industries and maintenance facilities throughout the United States only a daily basis! So, to reduce the cost and burden facing countless small businesses, the EPA decided to classify waste oil that is going to be recycled as a "non-hazardous waste". However, they implemented strict rules for used oil generators and even expanded on those rules in 1990 with the Oil Pollution Act.

As dictated by these rules, the generator can assume that their oil is going to be recycled. This assumption only holds true **if the generator is using a licensed and permitted used oil transporter**. In times of high fuel prices, it is not uncommon to see "used oil transporters" coming out of the woodwork...they show up and **WOW** service shop managers with promises of m\$ney for their used oil. However, be careful about using a new company or one that you don't know much about. To protect your company, you should always ask your used oil transporter to provide you with a copy of their transporter permit, proof of insurance and a used oil manifest for each transaction. Under the Oil Pollution Act, a negligent violation (associated with an oil discharge) can result in a criminal charge rather than a civil matter.

Additional requirements for used oil generators include a confirmation of the 'quality' of their used oil – meaning, the generator must ensure their used oil is not "contaminated".

Hazardous Waste

So, with that lead in – let's talk about hazardous waste...those ugly words briefly mentioned in the previous paragraph. Hazardous waste may be a solid, liquid or gas that can harm human health, natural resources or pose a physical threat to our environment.

Hazardous wastes may actually be a by-product from a process or they may be an un-used product that is intended for discard – such as an off-specification chemical or a product whose shelf-life has expired. To simplify this discussion, hazardous wastes may fall in one of two categories: a *characteristic* hazardous waste – one that is considered ignitable, corrosive, reactive or toxic; or a *listed* hazardous waste – one that is listed by the EPA in 40 CFR, Parts 261.31, .32 or .33.

The EPA enforces strict and complicated regulations for generation, storage, labeling, transport, manifesting and treatment/storage/disposal of hazardous wastes. The level of oversight and management is proportional to the amount of waste generated per month. There are three categories, as defined below:

Category	Hazardous Waste Generated/Month
Conditionally Exempt Small Quantity Generators (CESQG)	< 220 lbs
Small Quantity Generators (SQG)	> 220 lbs < 2200 lbs
Large Quantity Generators (LQG)	> 2200 lbs

It seems appropriate that CESQGs are not as heavily regulated as SQGs and LQGs. There are many exemptions for CESQGs, namely because they do not generate as much waste and therefore do not pose as much of a risk as the others. However, some of the exemptions are risky because of the potential consequences. The table on page 3 is intended to illustrate some of the dangers that CESQGs face.

As for SQGs, the aforementioned exemptions no longer apply and only some minor administrative requirements differentiate SQGs from LQGs. The EPA has specific allowances relating to "mixtures" of hazardous and non-hazardous wastes. So, if you're a Small Quantity Generator, you may want to PAY ATTENTION to the next section!!!

Mixtures of Hazardous and Non-Hazardous Waste

During a recent presentation to a group of petroleum refiners and distributors, the question was posed: Is rainwater that collects in the underground containment basin and around the fill inlet of fuel tanks considered hazardous waste? Because this piqued our interest and allowed some age-old issues to resurface, we thought it would be an appropriate discussion for all of our readers to enjoy!

The Resource Conservation and Recovery Act states that a waste created from the mixture of a **listed hazardous waste** and a *(continue reading on page 3)*.

OSHA Increases Options for Respirator Quantitative Fit-Testing

The Occupational Safety and Health Administration's Respiratory Protection standard now includes "Controlled Negative Pressure REDON Fit Testing Protocol." This protocol (CNP REDON) was submitted for approval by Dr. Clifton D. Crutchfield based on his research and two articles published in industrial hygiene journals.

The new protocol for quantitative fit-testing of negative pressure respirators reduces the test exercises from eight to three, while adding another redonning of the respirator after completion of the exercises. Quantitative fit-testing utilizes a piece of computerized equipment to measure the level of test agent (air induced contaminant) inside and outside the respirator mask. The level inside the respirator must theoretically be "non detectable" to prove the mask seals properly to the user's face.

Dr. Crutchfield's recently approved procedure consists of the following:

Exercises

1. The test subject must face forward in a normal standing position, without talking and breathe normally for 30 seconds. Then, facing forward, the test subject must hold his/her breath for 10 seconds for test measurement.*

2. The test subject must bend over at the waist for 30 seconds. Then, facing parallel to the floor, the test subject must hold his/her breath for 10 seconds for test measurement.*

3. The test subject must shake his/her head for about 3 seconds while shouting. Then, facing forward, the test subject must hold his/her breath for 10 seconds for test measurement.*

Redonning

1. The test subject must remove the respirator mask, respirator. Then, facing forward, the test subject must hold his/her breath for 10 seconds for test measurement.*

2. The test subject must remove the respirator mask, loosen all facestraps and redon the respirator. Then, facing forward, the test subject must hold his/her breath for 10 seconds for test measurement.*

**The test instrument must be equipped with an effective audio-warning device that indicates when the test subject fails to hold his/her breath during the test. The test must be terminated and restarted from the beginning when the test subject fails to hold his/her breath.*

Effective September 3, 2004, Dr. Crutchfield's CNP REDON protocol can be used to meet the annual quantitative respirator fit-testing requirement. For General Industry, the protocol can be found in Appendix A of 29 CFR, 1910.134.



Respirators required in areas with a hazard ratio (for the airborne contaminant) greater than 10 must be fit-tested annually through an OSHA approved quantitative method.

Suggested Work Practices to Avoid Hazardous Waste Mixtures

- **Utilize a portable recycling vat for brake and clutch cleaning.** There are several advantages to this equipment: they reduce the likeliness that a chlorinated solvent and/or a listed waste will be mixed with your used oil. They also ensure that brake dust and associated waste solvent is collected and contained. The latter is required by OSHA in accordance with Appendix F of 29 CFR, 1910.1001.
- **Reduce the use of aerosol solvents that contain listed wastes. Look for the following ingredients:** xylene, acetone, ethyl benzene, toluene, methanol, methyl ethyl ketone, methylene chloride, tetrachloroethylene and trichloroethene.
- **Look for parts cleaners and solvents consisting of 'petroleum distillates'.**
- **Ensure that aerosols are completely empty prior to disposal.** Better yet, recycle aerosol cans to reduce landfill waste. (Okay, maybe that one has nothing to do with this article, but it's still a good idea!)
- **Encourage technicians to be conservative with solvents.** It's easy to indulge, over-consume and be wasteful at times...but using less solvent decreases employee exposure to chemicals and also saves money!

Please contact your account manager or Crandall's Regulatory Compliance division if you have questions about this article at 800-248-4801. We will gladly provide more information or guidance for your shop.

Strange, Recent and Otherwise Noteworthy....NEWS!

According to the description given by a Haz-Mat Chief responding to a chemical explosion in Rogersville, TN, protective suits may serve another convenient purpose if things go wrong... He described "Level A suits as body bags with windows." Fortunately, all went well and there were no injuries suffered by the responders.

Source: Hawkins County Online, www.hawkins.xtn.net, March 22, 2004. Could be costly chemicals contained, creek cleaned.

As reported by The State on March 15, 2004 Mexican workers appear to be at a higher risk for work-related injuries and death. According to a study conducted by the Associated Press, in some areas of the U.S., Mexican workers are subjected to a four-fold increase in the risk of dying on the job. This study also claims that death rates of Mexicans in the U.S. have increased by about 66%, while their population has only risen about 50%.

Source: The State, March 15, 2004. Mexican workers dying on job.

OSHA issued five citations and levied a \$42,075 fine to Burris Electrical Company in Lexington, SC relating the trench cave-in that killed two Mexican immigrant workers. The brothers (only 15 and 16 years old) were working in an 8-foot trench when the walls buckled, causing sandy soil to engulf the boys. The company was cited for not having a "competent person" on site*. As required by OSHA's construction standards, a competent person must design appropriate protection for any sub-surface hole deeper than 4 feet. That person must be trained in soil types, strength tests, shoring, benching or physical protection systems for trench work.

*Source: The State, March 15, 2004. Local company fined in teens' cave-in deaths.

A contract worker cleaning a roll-up door in a Home Depot in Gwinnett County, GA was killed after being caught in the door as it was being raised. Despite rescue efforts, the man died at the scene.

Source: Macon Telegraph.com, December 11, 2002. Associated Press. Worker killed in door accident at Home Depot.

A 1500 pound bale of paper fell and crushed a worker at Southeastern Paper Board in Piedmont, SC.

Source: GreenvilleOnline.com, June 6, 2003. Plant worker crushed by paper roll.

A recent study predicted that 100,000 people in the U.S. will die of asbestos related diseases over the next ten years! This study also estimated that 1 million workers are currently exposed to asbestos on the job.

Source: Yahoo News, <http://story.news.yahoo.com>, March 4, 2004. Study Warns U.S. Faces Asbestos Disease Crisis

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