DEPARTMENT OF ECOLOGY
State of Washington

Public Used Oil Collection

Focus on Reducing PCB Contamination

Background

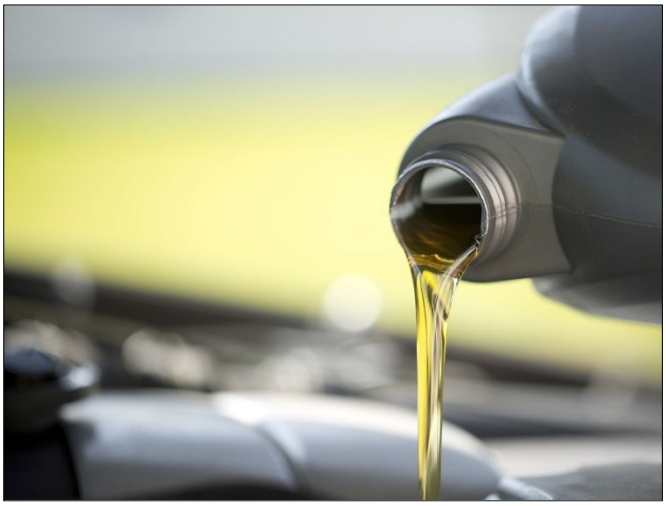
Polychlorinated biphenyls (PCBs) are manmade organic chemicals that contain carbon, hydrogen, and chlorine. They range in appearance from thin oil to a waxy solid and have no known taste or smell. PCBs were produced for a variety of industrial uses in the United States from the 1920s until the late 1970s. Historic uses of PCBs include insulation for electrical equipment, lubricants, dyes and pigments, as well as components of paint, plastic, and rubber products. PCBs are highly stable chemicals and do not easily break down through natural processes. Because of this stability, PCBs released to the environment accumulate in the tissues of plants and animals. Health impacts from PCBs include neurological effects and cancer. PCBs may also affect the human immune, reproductive, and endocrine systems.

Because of their oily consistency and historic uses, PCBs occasionally contaminate used oil at public collection centers. Recycling used oil with PCBs above regulated concentrations violates federal law. In accordance with the Toxic Substance Control Act (TSCA), a facility that improperly disposes of PCB-contaminated oil may receive a penalty of up to $25,000 per violation, per day. In addition to potential penalties for improper disposal, public collection centers are obligated to pay for proper disposal at a facility permitted to accept PCB waste. Proper disposal of PCB-contaminated oil is expensive. A single 55-gallon drum can cost $3,000 or more to dispose.

Used oil is defined as “lubricating fluids that have been removed from an engine crankcase, transmission, gearbox, hydraulic device, or differential of an automobile, bus, truck, vessel, plane, heavy equipment, or machinery powered by an internal combustion engine; any oil that has been refined from crude oil, used, and as a result of use, has been contaminated with physical or chemical impurities; and any oil that has been refined from crude oil and, as a consequence of extended storage, spillage, or contamination, is no longer useful to the original purchaser. ‘Used oil’ does not include used oil to which hazardous wastes have been added.”[1]

This document outlines best management practices (BMPs) to reduce costs and avoid penalties from improper disposal of PCB-contaminated used oil.

Public Used Oil collection centers operated by cities and counties may apply to the Washington Department of Ecology for reimbursement of high costs associated with PCB-contaminated oil and U.S. Environmental Protection Agency (EPA) enforcement orders and agreements[2]. To qualify for reimbursement from the Department of Ecology, the collection centers must have been following the best management practices on the following page.



[1] RCW 70A.224.010
[2] RCW 43.21A.711

Best management practices (BMPs) for used oil

To reduce the chance of PCB contamination in used oil and to properly manage PCB-contaminated oil, follow these BMPs:

- Post signage at the facility that states "USED OIL ONLY" or "OIL ONLY" and list sources of oil accepted at your facility.
- Prevent public access to your used oil collection containers or tanks.
- Ask people dropping off used oil at your facility if anything has been mixed with it.
- Manage used oil mixed with other waste in a separate container or tank from used oil destined for recycling.
- If funding allows, collect a small sample (retain sample) from each batch of used oil received at the facility.
- Bulk used oil in the smallest container or tank practical to lower risk of large volumes of PCB-contaminated oil — disposal of a small container of PCB-contaminated oil is less costly than a large tank.
- Before a vender collects your oil, test each container or tank for PCBs. Lock and label the containers immediately after collecting samples to prevent addition of any other fluids. Do not use a field kit for testing as they do not reliably detect PCBs in used oil. Use EPA method 8082A and send your sample for PCB testing to an accredited laboratory[3]. Maintain records of the testing.
    - At the time this was written, EPA method 8082A testing could be done for under $20 per sample in Washington.
    - Vendors may provide this service before collecting used oil from your facility.
    - Failure to test used oil and receive results before a vendor collects it may result in contamination of a much larger quantity. This can lead to high disposal costs and large penalties for improper disposal.

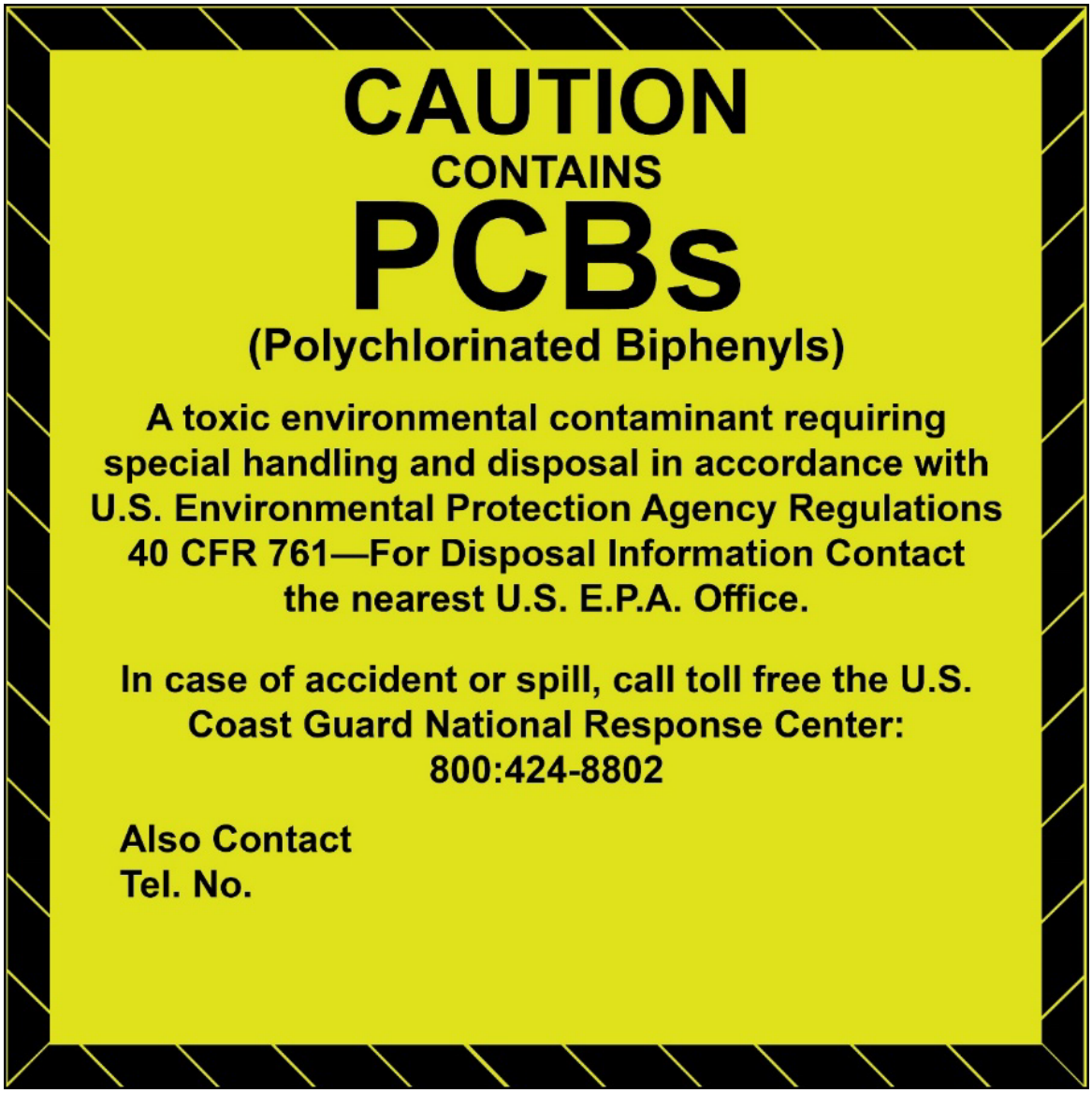
If PCBs are detected in your oil

- If the concentration of PCBs in the used oil is greater than or equal to 50 parts per million (ppm), manage all the used oil in the container or tank under the Toxic Substance Control Act (TSCA).
- If retain samples were collected at the facility and the tested oil contains PCBs below 50 ppm, retain samples may be tested with EPA method 8082A to determine the concentration of PCBs that contaminated the oil.
    - If the retain sample contained greater than 50 ppm PCBs, manage the oil under TSCA.
    - If the retain sample contained between 2 and 50 ppm PCBs, the oil may be burned for energy recovery in accordance with 40 CFR 761.20(e)[4].
    - If the retain sample contained less than 2 ppm PCBs, manage as used oil.
- If the concentration of PCBs that contaminated the oil is unknown — even if the measured concentration of the bulked oil is below 2 ppm — manage all contaminated oil under TSCA.
    - Used oil with a concentration of PCBs below TSCA regulation levels is exempt if, "the resulting PCB concentration is not a result of dilution, or leaks and spills of PCBs in concentrations over 50 ppm[5]"
    - It must be assumed that oil was contaminated with TSCA-regulated PCB concentrations if the contamination concentration is unknown.
- If TSCA regulated oil is spilled, follow 40 CFR 761 Subpart G[6] for cleanup.
- If containers or tanks will be reused at the facility, decontaminate as follows (refer to 40 CFR 761.79[7] for current cleanup standards):
    - Flush the inside of the container or tank three times with a solvent that contains less than 50 ppm PCBs.
    - At least 10% of container or tank capacity must be used each time it is flushed.
    - Dispose of decontamination waste in accordance with 40 CFR 761.79(g) [8].

[3] https://apps.ecology.wa.gov/laboratorysearch/
[4] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-R/part-761/subpart-B/section-761.20
[5] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-R/part-761/subpart-A/section-761.3
[6] https://www.ecfr.gov/current/title-40/part-761/subpart-G
[7] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-R/part-761/subpart-D/section-761.79
[8] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-R/part-761/subpart-C/section-761.45#p-761.45(a):~:text=Small%20PCB%20Mark,by%20.8%20inches).

To manage TSCA-regulated PCBs

- Mark the contaminated container with the label provided below.
  - **The label must be 6-inch x 6-inch or greater in size.**
- Prevent unauthorized access to any containers or tanks contaminated with PCBs.
- Mark the storage area with the label provided below.
  - **The label must be 6-inch x 6-inch or greater in size.**
- Protect PCB-contaminated oil from inclement weather.
- Ship PCB-contaminated oil to an approved PCB disposal facility[9].
- PCB-contaminated oil must be disposed of within one year in accordance with 40 CFR 761.65[10].



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To request an ADA accommodation, contact Ecology by phone at 360-407-6831 or email at ecyadacoordinator@ecy.wa.gov, or visit https://ecology.wa.gov/accessibility. For Relay Service orFor Relay Service or TTY call 711 or 877-833-6341.

[9] https://www.epa.gov/pcbs/list-approved-polychlorinated-biphenyl-pcb-commercial-storage-and-disposal-facilities
[10] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-R/part-761/subpart-D/section-761.65