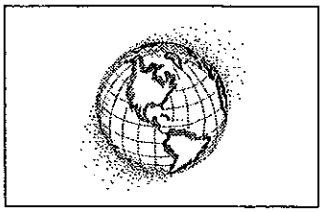


Environmental Issues—An Overview

Overview of Topic

In addition to OSHA, there are other agencies, such as the Environmental Protection Agency (EPA), that have rules that may be of concern to construction companies. Some of the regulations that could have significance are listed below:

Regulation	Description
Asbestos, 40 CFR 61	Rule covers the application, removal, and disposal of asbestos-containing material (ACM), as well as manufacturing, spraying, and fabricating ACM. It covers demolition and renovation projects. When ACM is disturbed, microscopic fibers are released. These fibers can remain airborne almost indefinitely and can travel great distances. If inhaled, they can become permanently lodged in the body and pose a serious threat. EPA and delegated states regulate asbestos in outside air during facility renovation and demolition. OSHA regulates indoor air and worker protection under 29 CFR 1926.1101.
Lead-Based Paint, 40 CFR 745	Rule covers lead-based paint activities like renovation activities in any residential dwelling unit built before 1978.
PCBs, 40 CFR 761	Rule regulates the manufacture, processing, distribution in commerce, use, disposal, storage, and marking of polychlorinated biphenyls (PCBs) and PCB items. Fluorescent and high-intensity discharge (HID) ballasts contain a small capacitor that may contain high concentrations of PCBs (greater than 90 percent pure PCBs or 900,000 ppm). These chemical compounds were widely used as insulators in electrical equipment such as capacitors, switches, and voltage regulators through the late 1970s.
Stormwater, 40 CFR 122	Rule sets forth phased National Pollutant Discharge Elimination System (NPDES) stormwater permit requirements. Stormwater discharges of construction activities that disturb five or more acres are covered under phase I. Stormwater discharges of construction activities that disturb equal to or greater than one but less than five acres are covered under phase II. Stormwater runoff is water discharged as a result of rain, snow, or other precipitation.
Spill prevention, control and countermeasure (SPCC), 40 CFR 112	Rule applies to a non-transportation related facility with aboveground (non-buried) oil storage capacity greater than 1,320 gallons (or greater than 660 gallons above ground in a single tank) or buried underground oil storage capacity greater than 42,000 gallons. An SPCC written plan, required by the rule, is a document of a facility's: (1) design, operation and maintenance procedures to prevent and control spills or discharges of oil into the navigable waters of the U.S., and (2) procedures on how facility personnel are to respond effectively to a discharge.
Wetlands, Clean Water Act (CWA) Section 404	Rule requires a federal permit to discharge dredged or fill materials into United States waters, including wetlands. Wetlands generally include swamps, marshes, bogs, estuaries, and other inland and coastal areas. Fill material is any material which changes the bottom elevation of a water body for any purpose.
Table continued on next page.	

Regulation	Description
Superfund Amendments and Reauthorization Act (SARA), 40 CFR 302, 350, 355, 370, and 372	Title III of SARA is the Emergency Planning and Community Right-to-Know Act (EPCRA). This law is based on the premise that citizens have a right to know about chemicals in their communities. EPCRA was designed to encourage planning for responses to accidents, and to provide the public and the government with chemical hazard information. Federal regulations associated with EPCRA include 40 CFR 302, 350, 355, 370, and 372. These regulations involve notifications, submission of Tier I or II and Form R or A, and release reporting.
Hazardous waste, 40 CFR 260 to 279	Rule protects human health and the environment from improper hazardous waste management. Hazardous waste is a waste that is listed as hazardous under 40 CFR 261 or possesses one of four characteristics (ignitability, corrosivity, reactivity, or toxicity). Sites that produce hazardous waste are categorized as one of three hazardous waste generators (conditionally exempt small quantity, small quantity, or large quantity). The rule covers EPA identification numbers, manifests, packaging, labeling, marking, placarding, storage, accumulation time, recordkeeping, and reporting.
Universal waste, 40 CFR 273	Rule applies to those who handle and accumulate universal waste (nickel cadmium batteries, mercury-containing thermostats, hazardous waste pesticides, or hazardous waste lamps), universal waste transporters, and destination facilities. Small quantity handlers of universal waste have requirements for release prevention, packaging, labeling/marking, accumulation time limits, employee training, release response, off-site shipments, exporting, and importing. Other handlers, transporters, and facilities have other requirements found in the regulation.
Underground storage tanks (UST), 40 CFR 280	A UST is a tank (including connecting underground pipes) located at least 10 percent or more underground and designed to hold gasoline or other petroleum products or hazardous substances. UST regulations have requirements for leak detection; spill, overfill, and corrosion protection; careful installation; recordkeeping; registration; financial responsibility; site checks and corrective action; replacement; and closure.
Used oil, 40 CFR 279	Rule ensures the safe handling of used oil, to maximize recycling, and to minimize disposal. It applies to all used oil handlers regardless of the amount of oil they handle. Special storage, labeling, and spill/leak prevention is required.

Employee Training

These regulations contain training requirements involving proper work practices and emergency response. You may wish to combine these topics with training programs like Hazard Communication, Emergency Action Plan, Personal Protective Equipment, Process Safety, Hazardous Materials Transportation, and HAZWOPER.

KELLER'S CONSTRUCTION TOOLBOX TALKS

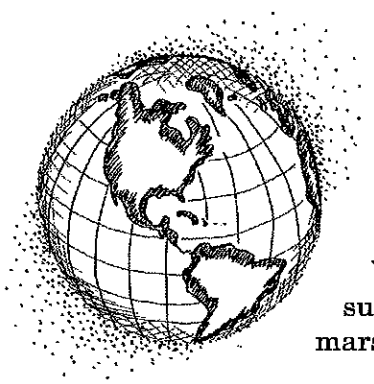
Environmental terms

When you think of construction safety, the first thing you may think of is worker safety. However, did you ever consider the environment? Construction jobs do affect the air, water, and soil. That's why it's important to think about what you do from an environmental perspective. Here's a list of environmental-related things that may be found at your site:

Asbestos: A hazardous air pollutant. When asbestos-containing material is disturbed, such as during renovation and demolition activities, microscopic fibers are released. If inhaled, they can become permanently lodged in the body and pose a serious threat.

Lead: A toxic metal which when absorbed by the body (generally by inhalation or ingestion) can build up in the body causing nerve, kidney, and reproductive damage; anemia; even death. Lead exposure risks can occur during renovations of structures containing lead-based paint unless certain safety measures are taken. When lead-based paint is disturbed during renovation, it may contaminate dust and soil, posing hazards.

Polychlorinated biphenyls (PCBs): Most PCBs are synthetically manufactured. Before 1979, PCBs were used in electrical equipment such as transformers, capacitors, switches, and voltage regulators because they do not readily burn or conduct electricity. PCBs may harm reproduction/growth and cause tumors.



Stormwater runoff: Water discharged as a result of rain, snow, or other precipitation.

Aboveground storage tank (AST): Tank whose entire surface area (including the tank bottom) is aboveground and can be visually inspected. Oil spills or leaks into waters must be prevented.

Wetland: Areas saturated by water, enough to support vegetation suited for saturated soil conditions. Wetlands include swamps, marshes, bogs, estuaries, and other inland and coastal areas.

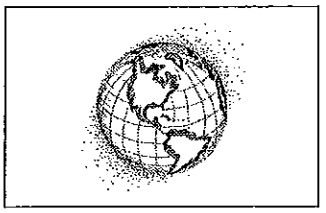
Hazardous substance: Toxic, corrosive, ignitable, explosive, or chemically reactive materials that pose a threat to human health and/or the environment. Spills into waters or releases into the environment must be prevented.

Hazardous waste: A waste that is listed as hazardous under EPA regulations or possesses one of four characteristics (ignitability, corrosivity, reactivity, or toxicity).

Universal waste: Includes nickel cadmium batteries, mercury-containing thermostats, hazardous waste pesticides, or hazardous waste lamps. Worksites must accumulate and send any large quantities to a proper treatment and recycling facility.

Underground storage tank (UST): A tank (including pipes) located at least 10 percent or more underground and designed to hold gasoline or other hazardous substances.

Used oil: Oil that has been refined from crude oil or any synthetic oil that has been used and is contaminated by physical or chemical impurities.



Environmental Issues—An Overview Sign-Off Sheet

This sign-off sheet documents the employees at this company, _____, who have taken part in a training session on Environmental Issues—Overview.

The session covered (checkmark the appropriate training element(s)):

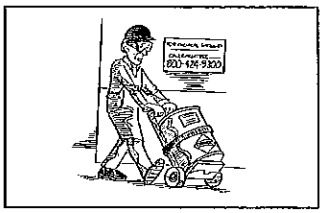
- ❑ Asbestos.
- ❑ Lead-based paint.
- ❑ PCBs.
- ❑ Stormwater.
- ❑ Spill prevention, control, and countermeasure.
- ❑ Wetlands.
- ❑ Superfund Amendments and Reauthorization Act.
- ❑ Hazardous waste.
- ❑ Universal waste.
- ❑ Underground storage tanks.
- ❑ Used oil.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	**Print Name Here**

_____
Supervisor's Signature



Environmental Issues—Hazardous Waste

Overview Of Topic

Waste is any solid, liquid, or contained gaseous material that is discarded by being disposed of, burned or incinerated, or recycled, but there are some exceptions for recycled materials. Your waste is considered hazardous if it appears on one of four lists in 40 CFR 261 or demonstrates one or more of the following characteristics:

Characteristic	Description
Ignitable	It catches fire under certain conditions, i.e., paints, varnish removers, paint brush cleaners, epoxy resins, adhesives, and certain degreasers and solvents.
Corrosive	It corrodes metals or has a very high or low pH, i.e., rust removers; acid or alkaline cleaning, degreasing, or plumbing fluids; and acid from batteries.
Reactive	It is unstable and explodes or produces toxic fumes, gases, and vapors when mixed with water or under other conditions such as heat or pressure. Cyanides or sulfide-bearing wastes are examples.
Toxic	It is harmful or fatal when ingested or absorbed, or it leaches toxic chemicals into the soil or groundwater when disposed of on land, i.e., wastes containing cadmium, lead, or mercury such as adhesives, paints, coatings, polishes, varnishes, thinners, and treated woods.

There are three categories of hazardous waste generators:

Generator category	Description
Conditionally exempt small quantity generator (CESQG)	• Generates less than 220 lbs (100 kg) of hazardous waste per month. • Generates no more than 2.2 lbs (1 kg) of acutely hazardous waste or 220 lbs (100 kg) of acutely hazardous waste spill residues) in a calendar month, and never stores more than that amount for any period of time. • Never accumulates more than 1,000 kg. • No storage time limits.
Small quantity generator (SQG)	• Generates between 220 lbs (100 kg) and 2,200 lbs (1,000 kg) per month. • Never accumulates more than 6,000 kg. • Storage time limit of 180 days (or 270 days if the waste will be shipped over 200 miles away).
Large quantity generator (LQG)	• Generates more than 2,200 pounds (1,000 kg) per month. • Generates more than 2.2 lbs (1 kg) of acutely hazardous waste. • No quantity limit on accumulation. • Storage time limit of 90 days.

Generators must meet requirements for waste identification, storage, labeling, transport, recordkeeping, reporting, inspection, treatment, disposal, recycling, waste minimization, and training. Used oil; scrap metal; and univeral wastes like certain batteries, pesticides, and mercury-containing thermostats have less burdensome requirements.

Employee Training

40 CFR 262.34 cross-references 40 CFR 265.16 for generators who accumulate hazardous waste for 90 days or less. This regulation calls for classroom instruction or on-the-job training in:

- Performing duties in a way that complies with 40 CFR 265.
- Hazardous waste management procedures (including contingency plan implementation) relevant to employees' positions.
- Emergency procedures, emergency equipment, and emergency systems, including where applicable: procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment; key parameters for automatic waste feed cut-off systems; communications or alarm systems; response to fires or explosions; response to ground-water contamination incidents; and shutdown of operations.

§262.34 also requires employees of generators that accumulate hazardous waste for more than 90 days to be aware of emergency response programs containing the requirements listed in §262.34(d)(5)(i)-(iv). This includes being familiar with proper waste handling and emergency procedures, relevant to employees' responsibilities during normal facility operations and emergencies.

§265.55-.56 relates to emergency coordinator qualifications.

Training Tips

List the hazardous waste generated at your site. See the Hazard Communication–HAZWOPER topic for additional training tips and related information.

Where To Go For More Information

40 CFR 260-299—Solid wastes.

29 CFR 1926.64—Process safety management for highly hazardous chemicals.

29 CFR 1926.65—Hazardous waste operations and emergency response. Also see the Hazard Communication–HAZWOPER topic.

KELLER'S CONSTRUCTION TOOLBOX TALKS

Hazardous Waste

Did you know that your work activities may generate hazardous waste? Hazardous waste is a solid, liquid, or gaseous material with certain properties that could pose dangers to human health or the environment. Those dangers are often ignitability, corrosivity, reactivity, or toxicity. Take a look at the table below to find out the typical types of hazardous waste generated by construction operations:

Operation	Materials	Hazardous waste generated
Paint preparation and painting	Paint thinners, reducers, paints, enamels, lacquers, epoxies, acrylics, primers, solvents	Ignitable wastes, toxic wastes, spent solvents, paint wastes
Carpentering and floor work	Adhesives, solvents, polishes and varnishes, treated wood	Spent solvents, toxic wastes
Other specialty contracting activities	Adhesives, paints, coatings, polishes, varnishes, solvents, petroleum products	Ignitable wastes, toxic wastes, spent solvents
Heavy construction	Motor oil and other petroleum products, asphalt	Used oil, asphalt wastes
Wrecking and demolition and vehicle/equipment maintenance	Degreasers, cleaners, motor oil and other petroleum products, solvents, rust removers	Wreckage and debris that may contain ignitable or toxic substances, used oil, spent solvents, acid/alkaline wastes, ignitable wastes, toxic wastes

Containers of hazardous waste must be marked with the words, "Hazardous Waste," along with the date the waste was generated.

Because hazardous waste can be dangerous to humans and the environment, if you work with hazardous wastes, you need to be trained in proper waste handling and emergency procedures relevant to your responsibilities.

If applicable, you will find out how to use, inspect, repair, and replace emergency and monitoring equipment. You will understand communications or alarm systems and be able to properly respond to fires or explosions and groundwater contamination incidents. And you will be able to shutdown operations.

If you are not properly trained, do not respond to a leak or spill. Instead, follow your company's emergency action plan for reporting leaks and spills and evacuating. The name and telephone number of the company's emergency coordinator and fire department should be listed next to your telephone.

If you manage hazardous wastes properly, there should be fewer hazards for you, your co-workers, your community, and the environment. Recycling and reducing the amounts of waste generated can also increase safety. In fact, used oil, lead-acid and nickel-cadmium batteries, scrap metal, pesticides, and mercury-containing thermostats should be recycled where possible.

Environmental Issues—Hazardous Waste Sign-Off Sheet

This sign-off sheet documents the employees at this company, _____, who have taken part in a training session on Environmental Issues—Hazardous Waste. The session covered:

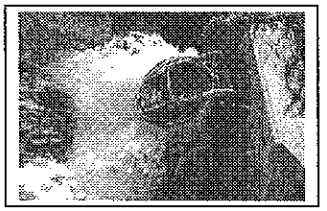
- Performing duties in a way that complies with 40 CFR 265.
- Hazardous waste management procedures (including contingency plan implementation) relevant to employees' positions.
- Emergency procedures, emergency equipment, and emergency systems, including where applicable:
  - Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment,
  - Key parameters for automatic waste feed cut-off systems,
  - Communications or alarm systems,
  - Response to fires or explosions,
  - Response to groundwater contamination incidents, and
  - Shutdown of operations.
- For generators that accumulate hazardous waste for more than 90 days, emergency response programs, including proper waste handling and emergency procedures, relevant to employees' responsibilities during normal facility operations and emergencies.
- Emergency coordinator qualifications.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	**Print Name Here**

_____
Supervisor's Signature



Environmental Issues—Stormwater

Overview of Topic

In an effort to address some of the problems associated with diffuse or nonpoint pollution sources, Congress passed the Water Quality Act of 1987. The Act required the Environmental Protection Agency (EPA) to establish regulations setting forth phased National Pollutant Discharge Elimination System (NPDES) stormwater permit requirements. The stormwater program consists of two phases. The Phase I and Phase II requirements that affect construction jobsites are:

- **Phase I**—Stormwater discharges associated with construction activities such as clearing, grading, and excavations, EXCEPT operations that result in the disturbance of less than five acres of total land area which are not part of a larger common plan of development or sale.
- **Phase II**—Discharges associated with construction activities that disturb equal to or greater than 1 and less than 5 acres of land. Phase II became final December 8, 1999 and supercedes the interim Phase II rule published in 1995.

Construction sites (disturbing less than 1 acre of land) may be brought into the NPDES stormwater program by the permitting authority case-by-case. Waivers from coverage are available.

Permit application

Facilities engaging in construction activities may either apply for an individual or general stormwater permit.

- **Individual permits** are for facilities that choose to file individually or have been disqualified from a group permit.
- **General permits** will be the most common permit option and will apply to a particular class of dischargers.

EPA has set forth distinct individual permit application requirements for construction activities at 40 CFR, Part 122.26(c)(1), to be used where general permits are inapplicable. Facilities applying for an individual permit are required to provide a map indicating the site's location, the name of the receiving water, and a narrative description of:

- The nature of the construction activity.
- The total area of the site and the area of the site expected to undergo excavation during the life of the permit.
- Proposed measures, including best management practices, to control pollutants in stormwater discharges during construction, including a description of applicable federal, state, and/or local requirements.
- Proposed measures to control pollutants in stormwater discharges that will occur after construction is done.
- An estimate of the runoff coefficient (fraction of total rainfall that will appear as runoff) of the site and the increase in impervious area after the construction addressed in the permit application is completed
- A description of the nature of fill material, and existing data describing the soil or the quality of the discharge.

Individual permit application requirements for construction activities do not include the submission of quantitative data.

The application deadline for stormwater discharge permits for construction activities is at least 90 days prior to the date the construction is to commence.

Notice of intent

Regulations for general permits require industrial dischargers eligible for a general permit to submit a Notice of Intent (NOI) with the regional EPA administrator or, if the state has a state NPDES program, the state director.

The general permit will specify when a discharger is authorized to discharge, either upon filing the NOI, after a specified waiting period, on a specified date, or upon receipt of notification of inclusion by the Director.

Monitoring

The regulation provides for monitoring reports for discharges to be required on a case-by-case basis with frequency dependent upon the nature and effect of the discharge. At a minimum, a permit for stormwater discharges associated with industrial activity must require:

- The discharger to conduct an annual inspection of the facility site to identify areas contributing to a stormwater discharge

and to evaluate whether measures to reduce pollutant loadings are adequate and properly implemented or whether additional control measures are needed.

- The discharger to maintain records, for a period of three years, summarizing the inspection results, certifying the facility is in compliance with the permit and the stormwater pollution prevention plan, and identifying any incidents of noncompliance.

Best management practices

In addition to applying for permits, covered operators must also implement stormwater discharge management controls (often referred to as best management practices or BMPs), as applicable, that effectively reduce or prevent the discharge of pollutants into receiving waters.

Employee Training

There are no training requirements for construction employees, this Toolbox Talk is an awareness tool.

Training Tips

Make employees aware of the company's efforts to meet environmental requirements.

Where To Go For More Information

EPA regulatory text: 40 CFR, Part 122—EPA Administered Permit Programs: The National Pollutant Discharge Elimination System

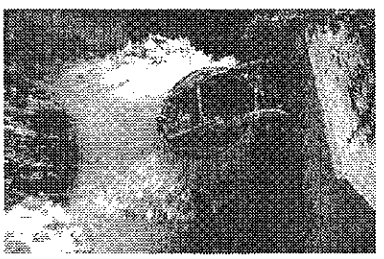
KELLER'S CONSTRUCTION TOOLBOX TALKS

Environmental Issues—Stormwater

When it rains or snows, the water that runs off of city streets, parking lots, and construction sites can wash sediment, oil, grease, toxics, pathogens, and other pollutants into nearby storm drains. Once this pollution has entered the sewer system, it is discharged—untreated—into local streams and waterways. Known as stormwater runoff, this pollution is a leading threat to public health and the environment today.

The Water Quality Act of 1987 required the Environmental Protection Agency (EPA) to establish regulations setting forth stormwater permit requirements. The stormwater program consists of two phases. The Phase I and Phase II requirements that affect construction jobsites are:

- **Phase I**—Stormwater discharges associated with construction activities such as clearing, grading, and excavations, EXCEPT operations that result in the disturbance of less than five acres of total land area which are not part of a larger common plan of development or sale.
- **Phase II**—Discharges associated with construction activities that disturb equal to or greater than 1 and less than 5 acres of land. Phase II became final December 8, 1999 and supercedes the interim Phase II rule published in 1995.



Permit application

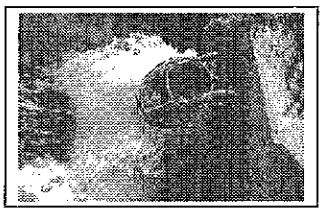
Construction companies may either apply for an individual or general stormwater permit. Individual permits are for facilities that choose to file individually or have been disqualified from a group permit. General permits will be the most common permit option and will apply to a particular class of dischargers.

Monitoring

The regulation provides for monitoring reports for discharges to be required case-by-case with frequency dependent upon the nature and effect of the discharge. At a minimum, a permit for stormwater discharges associated with construction activities requires a construction company to: (1) perform an annual inspection of the site to identify areas contributing to a stormwater discharge and evaluate whether measures to reduce pollutants are adequate and properly implemented or whether additional control measures are needed, and (2) maintain records, for a period of three years, summarizing the inspection results, certifying the company is in compliance with the permit and the stormwater pollution prevention plan, and identify any incidents of noncompliance.

Best management practices

In addition to applying for permits, companies must also implement stormwater discharge management controls (often referred to as best management practices or BMPs), as applicable, that effectively reduce or prevent the discharge of pollutants into receiving waters.



Environmental Issues—Stormwater Sign-Off Sheet

This sign-off sheet documents the names of employees who attended this training session on Environmental Issues—Stormwater at _____.
(company name)

The session covered:

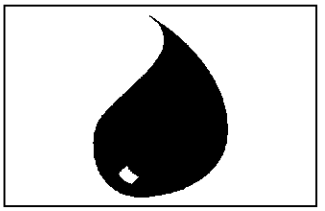
- Overview of stormwater regulations
- Permit requirements.
- Monitoring stormwater runoff.
- Best management practices.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	**Print Name Here**

_____
Supervisor's Signature



Environmental Issues—Used Oil

Overview Of Topic

Used oil is any oil that has been refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. During normal use, impurities such as dirt, metal scrapings, water, or chemicals can get mixed in with the oil, so that in time the oil no longer performs well. Eventually, this used oil must be replaced with virgin or re-refined oil to do the job at hand.

Used oil must have been refined from crude oil or made from synthetic materials. Animal and vegetable oils are excluded from the Environmental Protection Agency's (EPA's) definition of used oil. Oils used as lubricants, hydraulic fluids, heat transfer fluids, buoyants, and for other similar purposes are considered used oil.

Unused oil such as bottom clean-out waste from virgin fuel oil storage tanks or virgin fuel oil recovered from a spill, do not meet EPA's definition. Also excluded are products used as cleaning agents or solely for their solvent properties, as well as certain petroleum-derived products like anti-freeze and kerosene.

Used oil management standards

If your business generates or handles used oil, there are certain "management standards" it must follow under 40 CFR 279. The three goals of these standards are to ensure the safe handling of used oil, maximize recycling, and minimize disposal.

Generators are businesses that handle used oil through commercial or industrial operations or from the maintenance of vehicles and equipment. Other used oil handlers include collection centers, transporters, re-refiners and processors, burners, and marketers. As a construction employer, you are most likely to be a generator than any other category.

Employee Training

Because a single gallon of used oil can ruin one million gallons of fresh water and make it unfit to drink, it is important for your employees to follow the management standards. Although not required by EPA, training may help them do this. Proper training may cover:

- Storage and labeling practices,

- Leak and spill prevention and cleanup methods,
- Shipments to off-site locations, if applicable,
- Consequences of mixing used oil with hazardous waste,
- Used oil filter management,
- Oil conservation, and
- State regulations, if applicable.

From an OSHA perspective, you may need to train employees as follows:

You may need to train employees under:	Unless:
29 CFR 1926.59, Hazard Communication	Your used oil would be considered a hazardous waste defined under 40 CFR 260-299, Solid Wastes, or a hazardous substance defined under 40 CFR 300-399, Superfund, Emergency Planning, and Community Right-to-know Programs.
29 CFR 1926.65, Hazardous Waste Operations and Emergency Response (HAZWOPER)	Used oil spills and leaks at your site would be considered incidental releases with no potential safety or health hazards.

See the Hazard Communication tab of this manual for more information.

Training Tips

Make employees aware of the company's efforts to meet environmental requirements. Show slides of acceptable storage containers and labels. Let employees know where those containers are kept. Outline what employees should do if there is a leak or spill of used oil. Show samples of shipping forms used, and go over how to fill one out. Stress the importance of not mixing used oil with anything. Show proper oil filter draining and recycling practices. Address any state requirements. You may want to incorporate used oil training with your hazard communication and/or HAZWOPER training, if appropriate.

Where To Go For More Information

40 CFR 279—Standards for the management of used oil.

KELLER'S CONSTRUCTION TOOLBOX TALKS

Used Oil

Did you know a single gallon of used oil can ruin one million gallons of fresh water and make it unfit to drink? In other words, it doesn't dissolve in water, and it doesn't break down readily into smaller, safer components. To further compound problems, used oil—even from diesel engines—often contains a health-threatening mixture of chemicals and heavy metals, particularly lead. For these reasons, the Environmental Protection Agency (EPA) issued special standards under 40 CFR 279 for companies that generated or handled used oil.

What is used oil?

Used oil is any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities. Examples of used oil include:

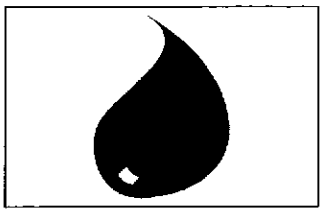
- Engine oil
- Transmission fluid
- Hydraulic fluids
- Lubricants
- Compressor oil
- Synthetic oil
- Refrigeration oil
- Metalworking fluids or oils
- Laminating oils
- Copper and aluminum wire drawing solution
- Electrical insulating oil
- Industrial process oils
- Oils used as buoyants

However, used oil does not include antifreeze, kerosene, vegetable and animal oil, or petroleum distillates used as solvents, or bottom clean-out waste from pure fuel oil storage tanks or pure fuel oil recovered from a spill.

How should used oil be managed?

Here are a few used oil management rules-of-thumb:

- Label all containers and tanks "Used Oil."
- Don't allow tanks to rust, leak, or deteriorate.
- Always store used oil in tanks or proper storage containers.
- Prevent leaks and spills.
- Keep machinery, containers, and tanks in good working condition and be careful when transferring used oil. Have sorbent materials available on site.
- Stop spills/leaks at their source or put the leaking oil in another container or tank.
- Contain spilled oil with sorbents.
- Clean up oil and recycle it if possible.
- Understand how to ship used oil off site, if necessary.
- Do not mix used oil with hazardous waste or other solvents. This adds costs and stricter requirements.
- Follow state used oil and used oil filter requirements.



Environmental Issues—Used Oil Sign-Off Sheet

This sign-off sheet documents the employees at this company, _____, who have taken part in a training session on Environmental Issues—Used Oil. The session covered:

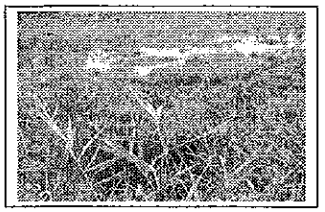
- Storage and labeling practices,
- Leak and spill prevention and cleanup methods,
- Shipments to off-site locations, if applicable,
- Consequences of mixing used oil with hazardous waste,
- Used oil filter management,
- Oil conservation,
- State regulations, if applicable, and
- Hazard communication and HAZWOPER training, if applicable.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	**Print Name Here**

_____
Supervisor's Signature



Environmental Issues—Wetlands

Overview of Topic

Section 404 of the Clean Water Act establishes a program which requires a Federal permit to discharge dredged or fill materials into waters of the United States, including wetlands.

Wetlands are areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, estuaries, and other inland and coastal areas. Fill material is any material which changes the bottom elevation of a water body for any purpose.

Activities regulated under the Section 404 program include:

- Placement of fill that is necessary for the construction of any structure in a water of the United States.
- The building of any structure or impoundment requiring rock, sand, dirt or other material for its construction.
- Site-development fills for recreational, industrial, commercial, residential, and other uses.

The Army Corps of Engineers (Corps) and EPA, who jointly administer the program, issue permits for these activities after evaluating the application for a variety of criteria including the impacts on fish and wildlife, the duration and extent of the proposed action, the effect on water quality, and the availability of alternative measures.

Permits

Regulated activities are controlled by a permit review process. The basic premise of the program is that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. When you apply for a permit, you must show that you have:

- Taken steps to avoid wetland impacts where practicable.
- Minimized potential impacts to wetlands.

- Provided compensation for any remaining, unavoidable impacts through activities to restore or create wetlands.

General permits—For most discharges that will have only minimal adverse effects, the Corps often grants up-front general permits. These may be issued on a nationwide, regional, or state basis for particular categories of activities (for example, minor road crossings, utility line backfill, and bedding) as a means to expedite the permitting process. A general permit can be granted if the activities in a category: (1) are similar in nature and similar in their impact upon water quality and aquatic environment, (2) will have only minimal adverse effects when performed separately, and (3) will have only minimal cumulative adverse effects on water quality and the aquatic environment.

Individual permits—An individual permit is usually required for potentially significant impacts. The 404 individual permit process includes the following steps: (1) public notice (describing the proposed activity, its location, and potential environmental impacts) is issued by the Corps, (2) a 15-30 day comment period is held, (3) citizens may request a public hearing, (4) the Corps conducts a permit evaluation, and (5) an Environmental Assessment and Statement of Finding, which explains how the permit decision was made, is made available to the public.

Denying a disposal site

EPA is authorized to prohibit or otherwise restrict a site whenever they determine that the discharge of dredged or fill material is having or will have an "unacceptable adverse effect" on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas. In making this determination, EPA will take into account all information available and will consult with the Corps or with the state.

Regulations establishing procedures to be followed by the EPA in denying or restricting a disposal site appear at 40 CFR Part 231. The process includes the administrator's proposed determination, public notice of the proposed determination, 30-60 day comment period, a possible public hearing, new recommended determination (with possible corrective actions) or withdrawal of proposed determination, and final determination.

Agency responsibilities

The Army Corps of Engineers:

- Administers the day-to-day program, including individual permit decisions and jurisdictional determinations.

- Develops policy and guidance.
- Enforces Section 404 provisions.

The Environmental Protection Agency:

- Develops and interprets environmental criteria used in evaluating permit applications (40 CFR Part 230).
- Determines scope of geographic jurisdiction.
- Approves and oversees State assumption.
- Identifies activities that are exempt.
- Reviews/comments on individual permit applications.
- Has authority to veto the Corps' permit decisions.
- Can elevate specific cases.
- Enforces Section 404 provisions.

Employee Training

There are no training requirements for construction employees, this Toolbox Talk is an awareness tool.

Training Tips

Make employees aware of the company's efforts to meet environmental requirements.

Where To Go For More Information

Clean Water Act—Section 404

KELLER'S CONSTRUCTION TOOLBOX TALKS

Environmental Issues—Wetlands

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Wetlands generally include swamps, marshes, bogs, estuaries, and other inland and coastal areas.

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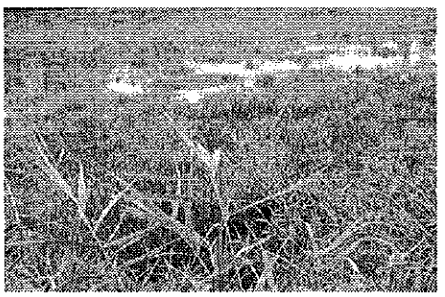

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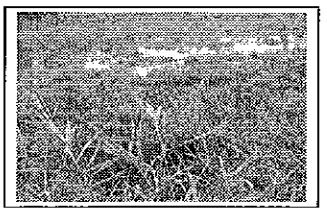

Environmental Issues—Wetlands—Sign-Off Sheet

This sign-off sheet documents the names of employees who attended this training session on Environmental Issues—Wetlands at_____.
(company name)

The session covered:

- Overview of the Wetlands requirements.
- Permitting process.
- Agency requirements.

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Supervisor's Signature