

# Federal Environmental Requirements for Construction

## What Do You Need to Consider?

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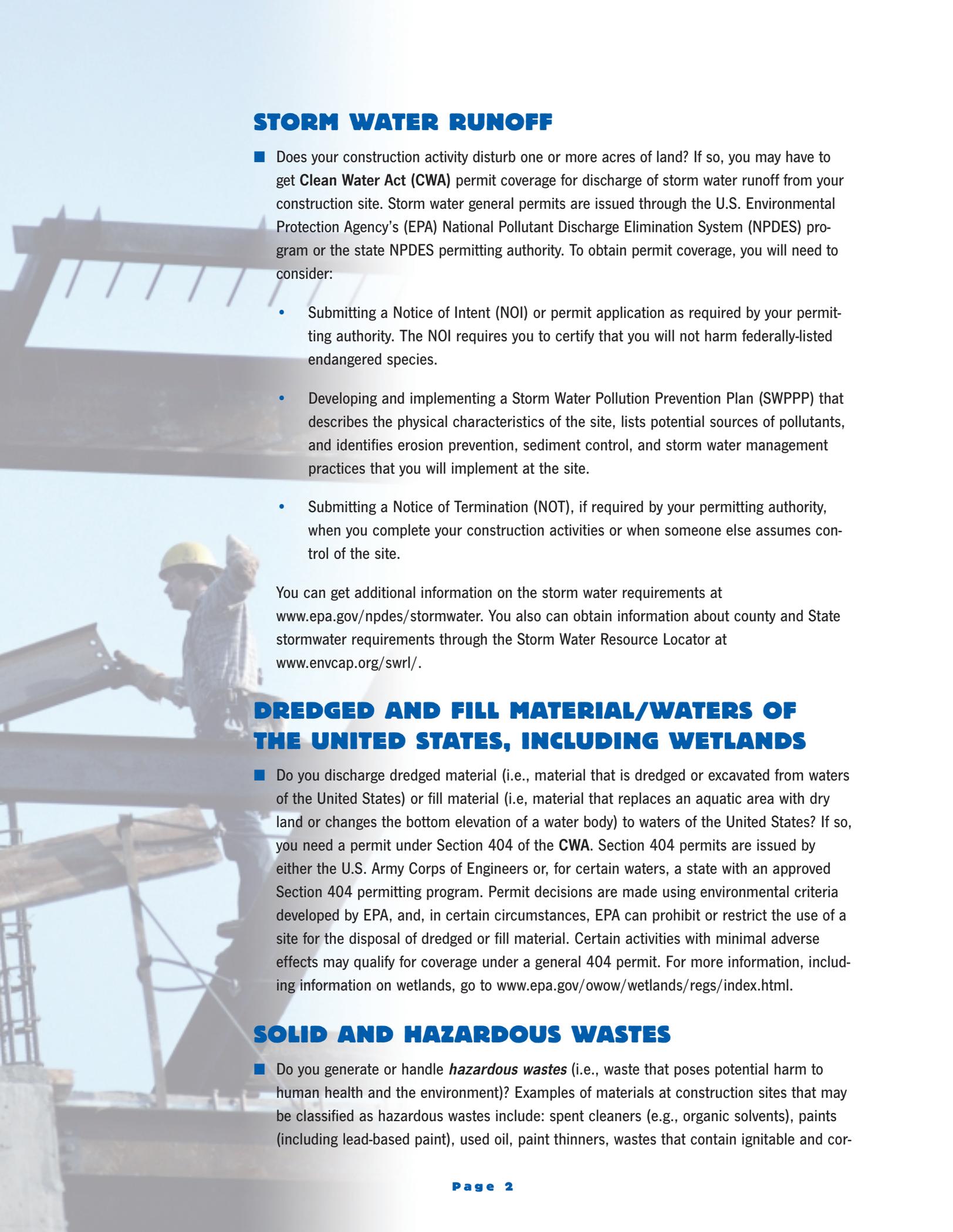
**D**o you perform clearing, grading, or excavation activities? Do you build roads, golf courses, playing fields, homes, or buildings? Are you involved in demolition activities? Will you discharge dredged or fill material to a waterway or wetland? Are you involved in tunnel or pipeline projects?

If so, you may be responsible for ensuring that requirements in federal environmental regulations are met. Depending on the regulation, a violation can result in a civil penalty up to \$27,500 per day and a criminal penalty of up to \$250,000 and 15 years in prison.

This guide provides information on federal environmental requirements for construction projects. It is written primarily for owners of construction projects and for general contractors who supervise construction projects. Subcontractors also may find the information useful.

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**EPA delegates authority to implement certain regulatory programs to some states. A state may have requirements that are more stringent than the federal requirements. Therefore, be sure to check with your state and local agencies before starting a construction project.**



## STORM WATER RUNOFF

- Does your construction activity disturb one or more acres of land? If so, you may have to get **Clean Water Act (CWA)** permit coverage for discharge of storm water runoff from your construction site. Storm water general permits are issued through the U.S. Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) program or the state NPDES permitting authority. To obtain permit coverage, you will need to consider:
  - Submitting a Notice of Intent (NOI) or permit application as required by your permitting authority. The NOI requires you to certify that you will not harm federally-listed endangered species.
  - Developing and implementing a Storm Water Pollution Prevention Plan (SWPPP) that describes the physical characteristics of the site, lists potential sources of pollutants, and identifies erosion prevention, sediment control, and storm water management practices that you will implement at the site.
  - Submitting a Notice of Termination (NOT), if required by your permitting authority, when you complete your construction activities or when someone else assumes control of the site.

You can get additional information on the storm water requirements at [www.epa.gov/npdes/stormwater](http://www.epa.gov/npdes/stormwater). You also can obtain information about county and State stormwater requirements through the Storm Water Resource Locator at [www.envcap.org/swrl/](http://www.envcap.org/swrl/).

## DREDGED AND FILL MATERIAL/WATERS OF THE UNITED STATES, INCLUDING WETLANDS

- Do you discharge dredged material (i.e., material that is dredged or excavated from waters of the United States) or fill material (i.e., material that replaces an aquatic area with dry land or changes the bottom elevation of a water body) to waters of the United States? If so, you need a permit under Section 404 of the **CWA**. Section 404 permits are issued by either the U.S. Army Corps of Engineers or, for certain waters, a state with an approved Section 404 permitting program. Permit decisions are made using environmental criteria developed by EPA, and, in certain circumstances, EPA can prohibit or restrict the use of a site for the disposal of dredged or fill material. Certain activities with minimal adverse effects may qualify for coverage under a general 404 permit. For more information, including information on wetlands, go to [www.epa.gov/owow/wetlands/regs/index.html](http://www.epa.gov/owow/wetlands/regs/index.html).

## SOLID AND HAZARDOUS WASTES

- Do you generate or handle **hazardous wastes** (i.e., waste that poses potential harm to human health and the environment)? Examples of materials at construction sites that may be classified as hazardous wastes include: spent cleaners (e.g., organic solvents), paints (including lead-based paint), used oil, paint thinners, wastes that contain ignitable and cor-

rosive materials, and wastes that contain certain toxic pollutants. A list of hazardous wastes and their allowed concentrations is in the regulations that implement the **Resource Conservation and Recovery Act (RCRA)**. These regulations also contain requirements for managing, treating, and disposing of hazardous wastes. For example, RCRA regulations contains requirements for:

- *Generators* of hazardous wastes. The requirements for generators of hazardous wastes are based on the amount of hazardous wastes generated. Generators of large amounts of hazardous wastes are subject to more regulatory requirements than are generators of small amounts of hazardous wastes. The **RCRA** regulations list quantities of hazardous wastes that determine whether a generator is large or small.
- *Storage* of hazardous wastes. The **RCRA** regulations specify the time hazardous wastes can be stored at a site. If the storage time is exceeded, a **RCRA** permit is required.
- *Transport, treatment, and disposal* of hazardous wastes. To transport hazardous wastes, a transporter must be registered with either EPA or a state as a hazardous waste transporter. A generator is responsible for ensuring that a transporter is a registered hazardous waste transporter and that the hazardous waste is delivered to a **RCRA**-permitted treatment or disposal facility. The generator also must sign the hazardous wastes manifest used to track the transport of a hazardous waste to a permitted treatment or disposal facility.

For more information on **RCRA** hazardous wastes and the hazardous wastes requirements, contact EPA's Office of Solid Waste Call Center at 800-424-9346 (TDD - 800-553-7672) Monday - Friday between 9:00 a.m. and 5:00 p.m. EST. You can also go to [www.epa.gov/epaoswer/hotline/](http://www.epa.gov/epaoswer/hotline/).

- Do you generate **lead-based paint (LBP)** wastes during the remodeling or rehabilitation of a residential building (e.g., a house or college dormitory)? EPA considers this a household waste, which can be disposed of as municipal waste and managed according to state and local requirements. For more information about LBP wastes, contact the RCRA Hotline weekdays at 800-424-9346 (TDD 800-553-7672) between 9:00 a.m. and 5:00 p.m EST or go to [www.epa.gov/lead/fslbp.htm](http://www.epa.gov/lead/fslbp.htm). Contractors must notify residents about lead before renovating pre-1978 housing; for information specific to remodeling activities, go to [www.epa.gov/opptintr/lead/leadinfo.htm#remodeling](http://www.epa.gov/opptintr/lead/leadinfo.htm#remodeling). In addition, EPA reports on lead in renovation and remodeling projects can be found at [www.epa.gov/opptintr/lead/leadtpbf.htm#renovation](http://www.epa.gov/opptintr/lead/leadtpbf.htm#renovation).

Persons who are involved in lead-abatement projects or who perform certain lead-based paint activities have to be certified to do the work under 40 CFR Part 745 or an authorized state or tribal program, and the work has to be done in accordance with work practice standards in 40 CFR Part 745. For more information on EPA's lead-based paint program, contact the National Lead Information Center at 800-424-LEAD (5323).



- Are **fluorescent lamps that contain mercury** part of the wastes generated during your demolition operation? These wastes are treated as universal waste (i.e., items such as batteries, thermostats, and obsolete pesticides commonly thrown into the trash by households and small businesses). Universal waste rules are less stringent than are hazardous waste rules with respect to collecting, storing, and transporting the wastes as long as the **RCRA** requirements for recycling, treatment, or disposal of the wastes are met. For more information, call the **RCRA Hotline** weekdays at 800-424-9346 (TDD 800-553-7672) between 9:00 a.m. and 5:00 p.m. EST. You also can go to [www.epa.gov/epaoswer/hotline/](http://www.epa.gov/epaoswer/hotline/).
- Do you generate **construction/demolition (C&D) wastes** such as wood, roof material, insulation, plaster, or sheet rock at your site? Most C&D wastes end up in either a municipal solid waste landfill or a landfill devoted exclusively to C&D wastes. Municipal solid waste landfills are subject to EPA's landfill criteria, while state and local governments regulate most of the C&D landfills. EPA regulations do prohibit, however, hazardous wastes from being placed in a C&D landfill. EPA also regulates building materials that contain lead and asbestos. For more information on C&D wastes, go to [www.epa.gov/epaoswer/non-hw/debris/index.htm](http://www.epa.gov/epaoswer/non-hw/debris/index.htm). Also, check with your local and state agencies for information on C&D landfills.
- Do you have storage tanks (either above ground or underground) for petroleum products such as gas or diesel fuel? If so, you may be subject to the requirements of either **RCRA**, the **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**, or the **Oil Pollution Act**, which dictate how you store, label, and dispose of these materials, and plan for spill prevention. For more information on the requirements for underground storage tanks, go to [www.epa.gov/epaoswer/hotline/](http://www.epa.gov/epaoswer/hotline/).

## SPILL REPORTING

- There are emergency planning and reporting requirements for **hazardous chemicals** under the **Emergency Planning and Community Right-to-Know Act (EPCRA)** and for **oil** under the **Oil Pollution Act**. The exact requirements depend on the type of chemical handled.

Each EPCRA hazardous chemical has an associated “reportable quantity.” If you spill or release more than this quantity at your construction site, you are required to report the spill or release to a local authority. If you have hazardous chemicals on your site, you can identify the authority who should receive the reports by contacting your local fire department. EPCRA also requires that you maintain a material safety data sheet (MSDS) for all materials on your site that contain hazardous chemicals. You can obtain an MSDS from the chemical supplier. When purchasing chemicals, be sure to ask if they are hazardous.

For more information, go to [www.epa.gov/epaoswer/hotline/](http://www.epa.gov/epaoswer/hotline/).

## HAZARDOUS SUBSTANCES (Superfund Liability)

- During your construction activity, do you excavate soil? If the excavated soils contain a hazardous substance (e.g., pesticides or petroleum), you may be responsible under CERCLA as an operator, arranger, or transporter. For example:
  - You may be an operator if you spread soil that contains a hazardous substance on the land.
  - You may be an arranger if you dispose of a hazardous substance or arrange to have it removed from a construction site. For example, if you excavate and spread soil that contains pollutants buried by a previous owner, you may be liable for disposal of a hazardous substance.
  - You may be a transporter if you move a hazardous substance from one location to another. For example, you may be liable if you transport dioxin-contaminated soil even if you did not know the soil contained dioxin.

CERCLA requirements dictate how you handle a material that contains a hazardous substance (e.g., treat the material to remove the substance or remove the material from the site). Be careful to prevent contaminated soil or water from contact with storm water. For more information, call the EPA Office of Solid Waste Call Center at 800-424-9346 (TDD - 800-553-7672) Monday - Friday between 9:00 a.m. and 5:00 p.m. EST. You also can go to [www.epa.gov/epaoswer/hotline/](http://www.epa.gov/epaoswer/hotline/).

## PCB WASTES

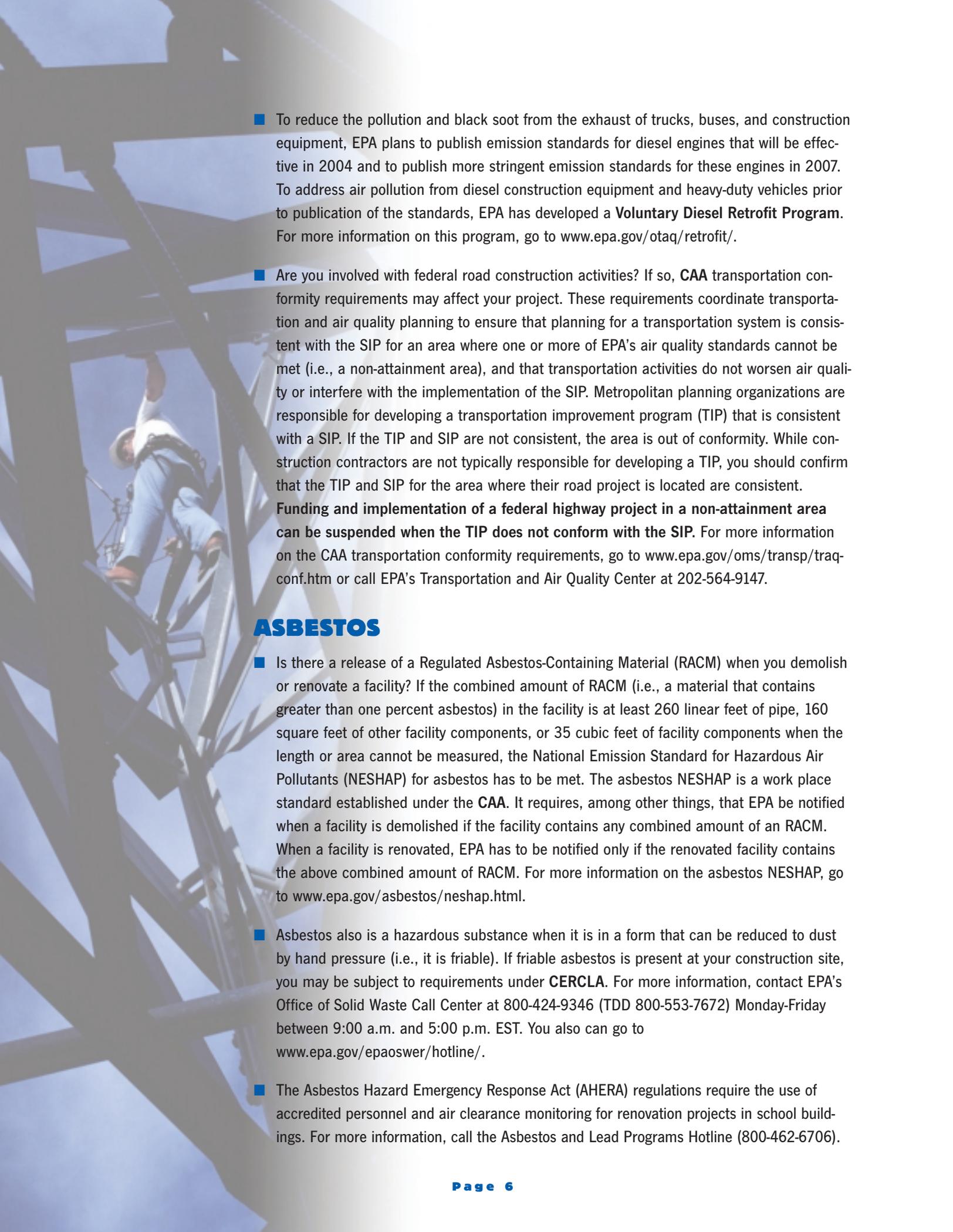
- Do you generate polychlorinated biphenol (PCB) wastes (e.g., fluorescent light ballasts containing PCBs in the potting material, old transformers that contain PCBs) during your construction/demolition activity? If yes, you may have to meet requirements for storage and disposal of PCB waste under the **Toxics Substances Control Act (TSCA)**. For more information, go to [www.epa.gov/opptintr/pcb/](http://www.epa.gov/opptintr/pcb/).

## AIR QUALITY

- Have you considered **Clean Air Act (CAA)** requirements for mobile and stationary sources that apply to construction activities? **CAA** requirements are implemented primarily by states through their State Implementation Plans (SIPs). Example requirements are:
  - Standards for heavy-duty trucks such as those that may be used during construction activities.
  - Regulation of dust emissions at a construction site.

For more information, go to [www.epa.gov/oar/oaqps/](http://www.epa.gov/oar/oaqps/).

- Do you have a shop/garage space heater fueled with used oil? If so, you may be subject to air permitting requirements depending on the rating of the heater. Contact your local air quality agency for additional information.

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- To reduce the pollution and black soot from the exhaust of trucks, buses, and construction equipment, EPA plans to publish emission standards for diesel engines that will be effective in 2004 and to publish more stringent emission standards for these engines in 2007. To address air pollution from diesel construction equipment and heavy-duty vehicles prior to publication of the standards, EPA has developed a **Voluntary Diesel Retrofit Program**. For more information on this program, go to [www.epa.gov/otaq/retrofit/](http://www.epa.gov/otaq/retrofit/).
  - Are you involved with federal road construction activities? If so, **CAA** transportation conformity requirements may affect your project. These requirements coordinate transportation and air quality planning to ensure that planning for a transportation system is consistent with the SIP for an area where one or more of EPA's air quality standards cannot be met (i.e., a non-attainment area), and that transportation activities do not worsen air quality or interfere with the implementation of the SIP. Metropolitan planning organizations are responsible for developing a transportation improvement program (TIP) that is consistent with a SIP. If the TIP and SIP are not consistent, the area is out of conformity. While construction contractors are not typically responsible for developing a TIP, you should confirm that the TIP and SIP for the area where their road project is located are consistent. **Funding and implementation of a federal highway project in a non-attainment area can be suspended when the TIP does not conform with the SIP.** For more information on the CAA transportation conformity requirements, go to [www.epa.gov/oms/transp/traq-conf.htm](http://www.epa.gov/oms/transp/traq-conf.htm) or call EPA's Transportation and Air Quality Center at 202-564-9147.

## **ASBESTOS**

- Is there a release of a Regulated Asbestos-Containing Material (RACM) when you demolish or renovate a facility? If the combined amount of RACM (i.e., a material that contains greater than one percent asbestos) in the facility is at least 260 linear feet of pipe, 160 square feet of other facility components, or 35 cubic feet of facility components when the length or area cannot be measured, the National Emission Standard for Hazardous Air Pollutants (NESHAP) for asbestos has to be met. The asbestos NESHAP is a work place standard established under the **CAA**. It requires, among other things, that EPA be notified when a facility is demolished if the facility contains any combined amount of an RACM. When a facility is renovated, EPA has to be notified only if the renovated facility contains the above combined amount of RACM. For more information on the asbestos NESHAP, go to [www.epa.gov/asbestos/neshap.html](http://www.epa.gov/asbestos/neshap.html).
- Asbestos also is a hazardous substance when it is in a form that can be reduced to dust by hand pressure (i.e., it is friable). If friable asbestos is present at your construction site, you may be subject to requirements under **CERCLA**. For more information, contact EPA's Office of Solid Waste Call Center at 800-424-9346 (TDD 800-553-7672) Monday-Friday between 9:00 a.m. and 5:00 p.m. EST. You also can go to [www.epa.gov/epaoswer/hotline/](http://www.epa.gov/epaoswer/hotline/).
- The Asbestos Hazard Emergency Response Act (AHERA) regulations require the use of accredited personnel and air clearance monitoring for renovation projects in school buildings. For more information, call the Asbestos and Lead Programs Hotline (800-462-6706).

## NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

- Are you involved with a Federal construction project? If so, the **National Environmental Policy Act of 1969 (NEPA)**, as amended, may affect the project. Under NEPA, an Environmental Assessment (EA), an Environmental Impact Statement (EIS), or both may be required. While construction contractors are not legally responsible for preparing an EA and EIS, they should note that a federal construction project may be delayed or interrupted if an EA or an EIS is not prepared by the lead agency. An EIS may not be needed if results of an EA indicate the project has no significant impacts. For more information on NEPA, go to <http://ceq.eh.doe.gov/nepa/agencies.htm>.

## THREATENED OR ENDANGERED SPECIES

- Could your construction activities impact endangered or threatened species or their critical habitat? The **Endangered Species Act** requires that federally-listed species and habitat not be adversely affected during any activity with federal involvement or subject to federal oversight (e.g., projects that require a NPDES storm water permit for construction). If your activities could impact these species or habitats, you may be required to develop mitigation strategies to minimize the impacts. Prior to construction, you should consult with the local office of the U.S. Fish and Wildlife Service (<http://endangered.fws.gov>), the National Marine Fisheries Service ([www.nmfs.noaa.gov](http://www.nmfs.noaa.gov)), as well as your local conservation agency, to determine if your project could harm endangered or threatened species, and if so, what to do about it. For information on the **Endangered Species Act**, go to <http://endangered.fws.gov/policies/index.html>. Absent any Federal involvement or oversight, private landowners must still insure that their proposed development activities will not result in a “take” of any listed species and may need to develop a habitat conservation plan.

## HISTORIC PROPERTIES

- Could your construction project impact historic properties? Section 106 of the **National Historic Preservation Act (NHPA)** requires federal agencies to protect historic properties through their activities and oversight. Many states have similar requirements. Your construction project may be subject to these requirements, so contact your local historic preservation office to determine if your construction activity impacts historic properties. For more information on the NHPA, go to [www.achp.gov/regs.html](http://www.achp.gov/regs.html).

## OTHER CONSIDERATIONS

### ■ Green Building

As the environmental impact of buildings becomes more apparent, a new field called green building is arising to reduce the impact at the source. Green or sustainable building is the practice of creating healthier and more resource-efficient methods for construction, renovation, operation, maintenance, and demolition. The elements of the green building program address energy use, water use, construction materials, waste reduction, and the indoor environment. For more information on EPA's green building program, go to [www.epa.gov/greenbuilding/](http://www.epa.gov/greenbuilding/). EPA's Pollution Prevention Resource Exchange Network runs a “topic hub” for residential construction, which includes green building and compliance issues. Go to [www.p2rx.org/P2InfoNexpert/construction.cfm](http://www.p2rx.org/P2InfoNexpert/construction.cfm).

## ■ **Brownfields**

Brownfields are abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination. EPA's Brownfield Program provides funding for the assessment, cleanup, and redevelopment of brownfield sites, and leverages public and private investments to help in these efforts. For more information on the Brownfield Program and on how you can use that program for your construction activity, go to [www.epa.gov/swerosps/bf/](http://www.epa.gov/swerosps/bf/).

## **COMPLIANCE RESOURCES**

### ■ **Construction Industry Compliance Assistance Center**

The new Construction Industry Compliance Assistance Center Web site ([www.cicacenter.org](http://www.cicacenter.org)) contains plain language explanations of the major environmental laws affecting contractors and builders/developers along with links to sources of detailed information.

### ■ **The National Environmental Compliance Assistance Clearinghouse**

This Clearinghouse not only provides links to comprehensive compliance assistance materials, but also contains features that allow users to interact with EPA and each other. The Clearinghouse can be accessed at [www.epa.gov/clearinghouse](http://www.epa.gov/clearinghouse).

### ■ **Compendium of Compliance Assistance Tools for the Construction Sector**

EPA and its partners have compiled a list of compliance assistance tools for the construction industry. This information can be accessed at [www.epa.gov/compliance/resources/publications/assistance/sectors/constpub.html](http://www.epa.gov/compliance/resources/publications/assistance/sectors/constpub.html).

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**Don't forget to check with your state and local agencies for their environmental requirements!**



United States  
Environmental Protection Agency  
Office of Enforcement and Compliance Assurance  
Washington, DC 20460

Official Business  
Penalty for Private Use \$300

EPA305-F-03-007  
[www.epa.gov](http://www.epa.gov)