



Federal Environmental Requirements for Construction

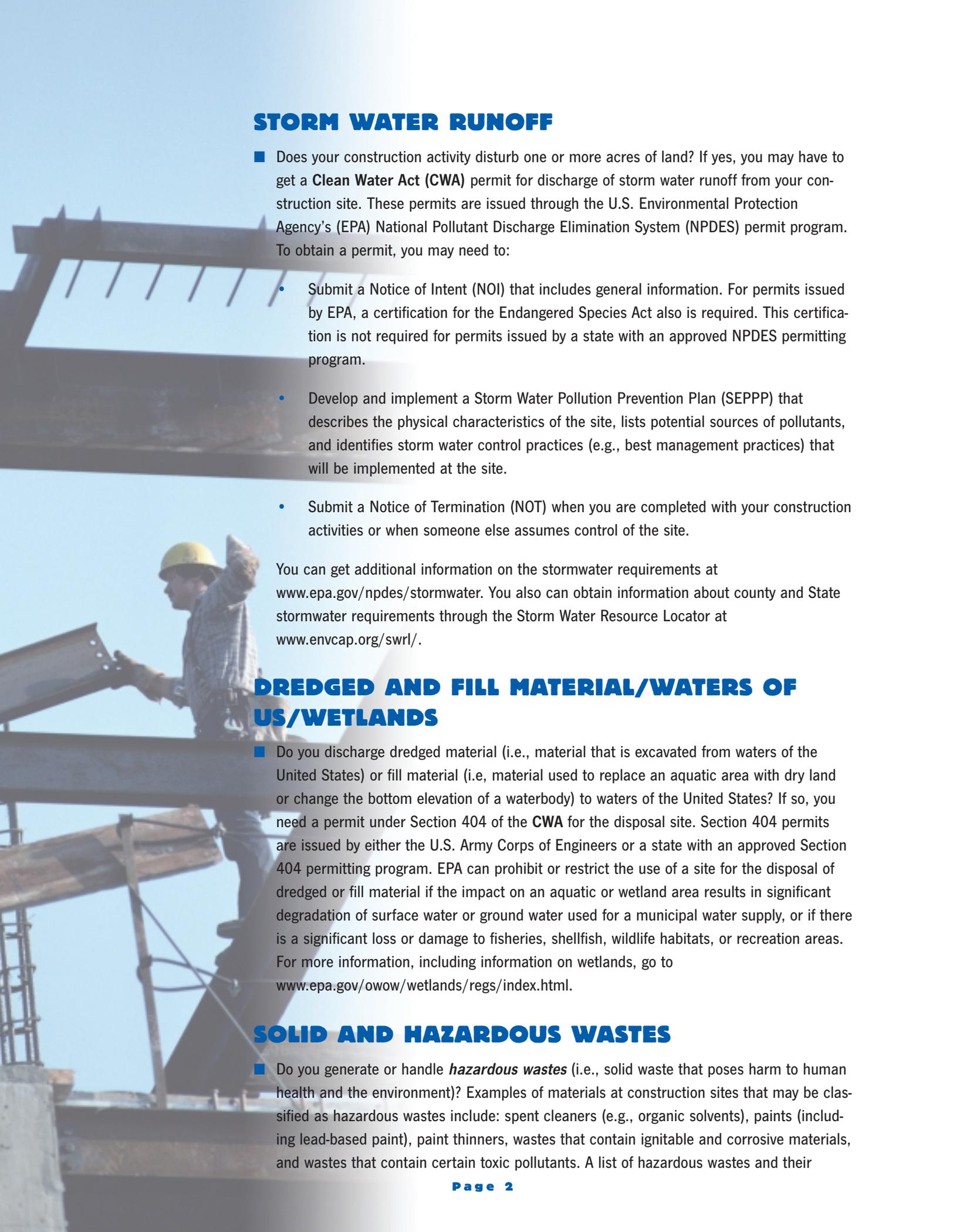
What Do You Need to Consider?

Do you perform clearing, grading, or excavation activities? Build roads? Build homes, public buildings, or commercial buildings? Are you involved in demolition activities? Do you discharge dredged or fill material to waters of the U.S.? Are you involved in tunnel projects?

If yes, 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 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 a construction project and for general contractors on a construction project. Subcontractors also may find the information useful.

EPA may delegate authority to implement the regulatory program to the state. In these cases, the state may have requirements that are more stringent than the federal requirements. Therefore, be sure to check with your state and local agencies.



STORM WATER RUNOFF

■ Does your construction activity disturb one or more acres of land? If yes, you may have to get a **Clean Water Act (CWA)** permit for discharge of storm water runoff from your construction site. These permits are issued through the U.S. Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) permit program. To obtain a permit, you may need to:

- Submit a Notice of Intent (NOI) that includes general information. For permits issued by EPA, a certification for the Endangered Species Act also is required. This certification is not required for permits issued by a state with an approved NPDES permitting program.
- Develop and implement a Storm Water Pollution Prevention Plan (SEPPP) that describes the physical characteristics of the site, lists potential sources of pollutants, and identifies storm water control practices (e.g., best management practices) that will be implemented at the site.
- Submit a Notice of Termination (NOT) when you are completed with your construction activities or when someone else assumes control of the site.

You can get additional information on the stormwater requirements at 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/.

DREDGED AND FILL MATERIAL/WATERS OF US/WETLANDS

■ Do you discharge dredged material (i.e., material that is excavated from waters of the United States) or fill material (i.e., material used to replace an aquatic area with dry land or change the bottom elevation of a waterbody) to waters of the United States? If so, you need a permit under Section 404 of the **CWA** for the disposal site. Section 404 permits are issued by either the U.S. Army Corps of Engineers or a state with an approved Section 404 permitting program. EPA can prohibit or restrict the use of a site for the disposal of dredged or fill material if the impact on an aquatic or wetland area results in significant degradation of surface water or ground water used for a municipal water supply, or if there is a significant loss or damage to fisheries, shellfish, wildlife habitats, or recreation areas. For more information, including information on wetlands, go to www.epa.gov/owow/wetlands/regs/index.html.

SOLID AND HAZARDOUS WASTES

■ Do you generate or handle **hazardous wastes** (i.e., solid waste that poses 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), paint thinners, wastes that contain ignitable and corrosive 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)**. They also contain requirements for the management and treatment and disposal 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 quantities of hazardous wastes that determine whether a generator is large or small are listed in the **RCRA** regulations.
- *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 a transporter is a registered hazardous waste transporter and for ensuring 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 Solids Waste Call Center on (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/.

- 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 6:00 p.m EST or go to www.epa.gov/lead/fslbp.htm. Also, for information specific to remodeling activities, go to 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.

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 by 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 1-800-424-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 wastes rules are less stringent than are hazardous wastes rules with respect to collecting, storing, and transporting the wastes as long as the **RCRA** requirements for recycling, treatment or disposal of hazardous 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/.
- 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. Building materials that contain lead and asbestos are also regulated by EPA. For more information on C&D wastes, go to 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** or the **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**, which dictate how you store, label, and dispose of the materials. For more information on the requirements for underground storage tanks, go to 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)**. 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 a 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/.

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). For more information, call the EPA Office of Solid Waste Call Center on (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 EPA's web site at www.epa.gov/epaoswer/hotline/.

PCB WASTES

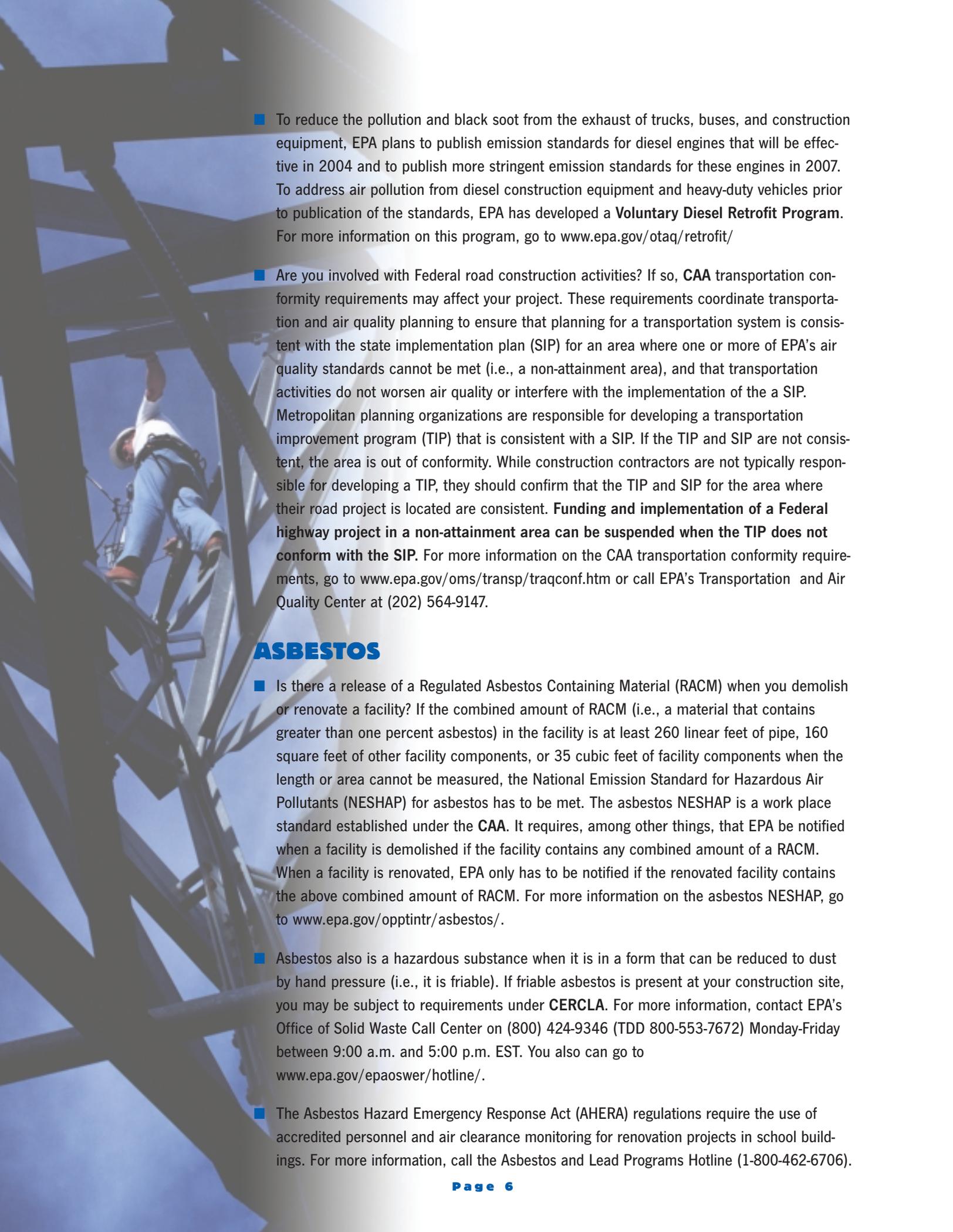
- Do you generate polychlorinated biphenol (PCB) wastes (e.g., fluorescent light ballasts containing PCBs in the potting material, old transformers that contain PCBs) during your construction/demolition activity? If yes, you may have to meet requirements for storage and disposal of PCB Waste under the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

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 Plan (SIP). 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/.

- 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/
 - 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 state implementation plan (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 a 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, they 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/traqconf.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 a RACM. When a facility is renovated, EPA only has to be notified if the renovated facility contains the above combined amount of RACM. For more information on the asbestos NESHAP, go to www.epa.gov/opptintr/asbestos/.
- 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 on (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/.
- 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 (1-800-462-6706).

NATIONAL ENVIRONMENTAL POLICY

- 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 usually are not responsible for preparing an EA and EIS, they should note that a Federal construction project may be delayed or interrupted if an EA and EIS are not prepared for the project unless a determination is made that neither are required. 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 ceq.eh.doe.gov/nepa/agencies.htm

THREATENED OR ENDANGERED SPECIES

- Do your construction activities impact endangered or threatened species? If so, you may be subject to requirements under the **Endangered Species Act**, which requires that threatened and endangered species be conserved during any Federal construction project. Many states have adopted these requirements for non-Federal activities. If your activities impact threatened or endangered species, you may be required to develop mitigation strategies to minimize the impacts on these species. Prior to construction, you should consult with your local office of the U.S. Fish and Wildlife Service as well as your local fish and wildlife agency to determine if you have the potential to impact endangered or threatened species. For information on the **Endangered Species Act**, go to www.epa.gov/region5/defs/html/esa.htm.

HISTORIC PROPERTIES

- Do your construction activities impact historic properties? Section 106 of the **National Historic Preservation Act (NHRA)** requires Federal agencies to account for the effects of their undertakings on historic properties. Many states have similar requirements. Contact your local historic preservation society to determine if your construction activity impacts historic properties. For more information on the **NHRA**, go to 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/.

■ **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/.

COMPLIANCE RESOURCES

■ **Construction Industry Compliance Assistance Website**

The new Construction Industry Compliance Assistance Website (www.envcap.org/cica) contains plain language explanations of the major environmental laws affecting builders and developers along with links to sources of detailed information. Though still under development, the site has tools that will appeal to a wide audience.

■ **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.

■ **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.ergweb.com/projects2/catools.

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



United States
Environmental Protection Agency
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Official Business
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