

Environmental law and practice in the United States: overview

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ENVIRONMENTAL REGULATORY FRAMEWORK

1. What are the key pieces of environmental legislation and the regulatory authorities?

Over the past five decades, the US Congress has enacted or amended several key environmental statutes which are further interpreted and enforced through regulations by federal agencies including the US Environmental Protection Agency (EPA), US Department of the Interior and the US Army Corps of Engineers (see below, *The regulatory authorities*).

Many of the key statutes give state governmental agencies primary responsibility over implementation, with the federal government retaining oversight and enforcement authority to assure compliance.

State governments can generally adopt more stringent laws and regulations than allowed under federal law, unless prohibited from doing so by federal statute. Many states have indeed enacted environmental laws that can result in more stringent emission standards and requirements than are required by federal laws.

Local governments can also adopt stricter environmental laws, as long as they do not conflict with state or federal laws.

Key environmental legislation

The key legislation is the:

- **Clean Air Act (CAA).** This regulates air quality and addresses air pollution from stationary sources, such as power plants, refineries, petrochemical plants and factories, mobile sources, such as cars, lorries and aeroplanes, and other sources.

The EPA and individual states share responsibility under the CAA for the implementation of certain programmes such as national ambient air quality standards (NAAQS). Major recent developments, all of which are in litigation and/or pending reconsideration by EPA, include:

- the Clean Power Plan, which regulates power plant CO₂ emissions;
- novel methane standards for oil and gas wells;
- more stringent ozone air quality standards;
- standards to limit interstate air pollution.

- **Clean Water Act (CWA).** This regulates discharges of pollutants into US waters and the quality of surface waters. The EPA, the US Army Corps of Engineers (Corps), and states all share responsibilities under the CWA.

- Recent developments under the CWA, all of which are in some form of litigation and/or reconsideration by EPA, include:

- the joint EPA/Corps rulemaking defining the scope of regulatory jurisdiction;
- effluent limitations for steam electric generating utilities;
- increased regulation of discharges to groundwater;
- increased regulation of nutrients.
- **Endangered Species Act (ESA).** This deals with the protection and recovery of threatened and endangered species and their habitats. The US Fish and Wildlife Service within the Department of the Interior has primary responsibility for terrestrial and freshwater species, while the Department of Commerce's National Marine Fisheries Service has primary responsibility for marine wildlife.
- **Toxic Substances Control Act (TSCA).** This regulates the production, importation, use, and disposal of chemical substances and mixtures. On 22 June 2016, the then President Obama signed into law the Frank R Lautenberg Chemical Safety for the 21st Century Act, which amends TSCA and completely overhauls how chemical products are regulated in the US.
- **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).** Also known as "Superfund," this statute deals with the clean-up of hazardous substance sites, as well as accidents, spills, and other emergency releases of hazardous substances into the environment. CERCLA imposes strict liability on parties connected to the disposal of hazardous substances, including:
 - current and former owners and operators of land on which such substances are deposited;
 - parties that participate in arranging for their disposal.
- **Resource Conservation and Recovery Act (RCRA).** This regulates the handling, transportation, treatment, storage, and disposal of hazardous wastes from the point of generation to their ultimate disposition. RCRA also regulates management of certain non-hazardous solid waste to a lesser extent, including a self-executing federal regulatory scheme for coal combustion residuals.
- **Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).** This regulates pesticide distribution, sale, and use, primarily through a licensing programme administered by the EPA.
- **Safe Drinking Water Act (SDWA).** This regulates the public drinking water supply by regulating public water systems. The SDWA also regulates the construction, operation, permitting, and closure of underground injection wells. In early 2016, the EPA issued an Emergency Order under the SDWA to address lead levels in drinking water in Flint, Michigan. The EPA is also considering revisions to an existing rule that requires public water systems to minimise lead and copper in drinking water.



- **National Environmental Policy Act (NEPA).** This requires federal agencies to complete evaluations of the environmental impacts of proposed projects before authorisation.
- **Emergency Planning and Community Right-to-Know Act (EPCRA).** This imposes reporting requirements relating to the storage, use, and releases of hazardous substances.

Regulatory authorities

These are largely federal agencies, including the:

- **US Environmental Protection Agency (EPA).** This implements and enforces most of the federal environmental statutes listed above, although it shares responsibility with states and other federal agencies under some laws.
- **US Department of the Interior.** This administers federal laws dealing with public lands management, minerals, and natural resources, including various wildlife conservation laws.
- **US Army Corps of Engineers.** This regulates the disposal of dredged or fill material in waters subject to Clean Water Act jurisdiction, as well as activities and structures in navigable waters under the Rivers and Harbors Act.
- **National Marine Fisheries Service.** A sub-agency within the Department of Commerce, this agency administers programmes relating to the conservation and management of marine resources.
- **US Department of Justice (DOJ).** The DOJ's Environment and Natural Resources Division represents federal agencies in litigation arising under the federal environmental laws.

REGULATORY ENFORCEMENT

2. To what extent are environmental requirements enforced by regulators?

Government agencies (federal, state, and local) have broad discretion in deciding whether to take enforcement action against violations of environmental laws. Resource constraints and practical difficulties in detecting and proving violations can all limit the number of enforcement actions. Many of the federal environmental laws also allow for "citizen suits", by which citizens can initiate an enforcement action against alleged violations by other persons, including by governmental entities.

The US Environmental Protection Agency (EPA) and the Department of Justice (DOJ) provide detailed enforcement data for each fiscal year on their websites. In 2016, the EPA:

- Initiated about 2,340 civil and administrative cases.
- Concluded about 2,280 cases.
- Conducted over 13,500 inspections or evaluations.

In 2016, the EPA's enforcement activities resulted in:

- US\$6 billion of administrative and civil penalties and criminal fines.
- More than US\$13.7 billion invested in actions and equipment to control pollution and clean-up contaminated sites.
- A total of 93 years of prison sentences for convicted defendants.

The DOJ's website shows that in 2016 it:

- Successfully litigated 790 cases.
- Handled 6,972 cases, matters, and appeals.
- Resulted in over US\$14 billion in civil and criminal fines, penalties, and costs recovered.

The EPA's website also describes a number of national enforcement initiatives, which it periodically updates. Current initiatives include:

- Reducing air pollution from the largest sources.
- Cutting hazardous air pollutants.
- Reducing hazardous chemical pollution from mineral processing operations.
- Reducing the risks of accidental releases of hazardous chemicals at industrial and chemical facilities.
- Keeping industrial pollutants out of waters.
- Keeping raw sewage and contaminated storm water out of waters.
- Ensuring energy extraction activities comply with environmental laws.

ENVIRONMENTAL NGOS

3. To what extent are environmental non-governmental organisations (NGOs) and other pressure groups active?

Environmental NGOs, such as the Sierra Club, Natural Resources Defense Council, and Environmental Defense Fund, are very active in influencing the development of environmental policy, legislation, and enforcement priorities. Their activities include:

- Grassroots political and legislative efforts.
- Commenting on proposed federal actions and regulations.
- Challenging agency actions or intervening on behalf of governmental agencies to defend agency actions against industry challenges.
- Bringing citizen suits to enforce or implement environmental laws (see *Question 2*).

ENVIRONMENTAL PERMITS

4. Is there an integrated permitting regime or are there separate environmental regimes for different types of emission? Can companies apply for a single environmental permit for all activities on a site or do they have to apply for separate permits?

There is no integrated permitting regime in the US. Separate permits are required for activities that result in air emissions, water pollution, waste disposal, or impacts to certain fish or wildlife species.

Many states and local governments also have separate permitting requirements, which may be integrated with federal permitting requirements and can be more stringent than requirements under federal law.

Some federal laws, such as the Clean Air Act (see *Environmental regulatory framework*), require a consolidated operating permit that gathers all applicable regulatory requirements in a single document for ease of compliance and enforcement.

5. What is the framework for the integrated permitting regime?

Not applicable (see *Question 4*).

WATER POLLUTION

6. What is the regulatory regime for water pollution (whether part of an integrated regime or separate)?

Permits and regulator

The Clean Water Act (CWA) is the primary federal law regulating surface water pollution. The CWA prohibits discharges of pollutants from point sources (that is, discrete, confined, and discernible conveyances like pipes) into jurisdictional waters.

Such discharges may in certain circumstances be authorised by the Environmental Protection Agency (EPA) or delegated states under the National Pollutant Discharge Elimination System (NPDES) permitting programme.

Also, under the CWA Section 404 programme, the US Army Corps of Engineers or a delegated state may issue permits authorising discharges of dredged or fill material into jurisdictional waters. The CWA establishes other surface water pollution control programmes. For example, the EPA sets industry-wide effluent limitations, which are implemented through NPDES permits. Also, states (or the EPA) must establish water quality standards for various contaminants, and implementation of those standards lies primarily with the states.

Under the CWA, states retain the authority to regulate nonpoint source surface water pollution (for example, diffuse runoff following precipitation events). States can, but are not required to, establish permitting programmes governing nonpoint source pollution. The EPA often tries to incentivise nonpoint source pollution control by providing grants to states.

The Safe Drinking Water Act (SDWA) regulates public drinking water systems by requiring compliance with drinking water standards, monitoring, and reporting requirements. The SDWA's underground injection control (UIC) programme also protects underground drinking water sources by establishing permitting requirements for various classes of injection wells. The EPA may delegate primary enforcement responsibility for both of these programmes to states.

Groundwater regulation is historically an area of state regulation, although a growing number of courts have held that point source discharges into groundwater that is hydrologically connected to a surface water can require a CWA permit.

Prohibited activities

The CWA prohibits unpermitted discharges of pollutants from point sources into jurisdictional waters, as well as discharges that are not in compliance with permit terms.

The SDWA prohibits drinking water utilities from violating standards for finished drinking water and from failing to conduct regular monitoring and reporting of drinking water quality. It also prohibits underground injection that is not authorised by an underground injection control permit and injection activities that are not in compliance with permit terms.

The Ocean Dumping Act prohibits the unpermitted dumping of materials into the ocean, as well as dumping in violation of permit terms.

Clean-up/compensation

CWA violations can result in a broad range of injunctive relief, including:

- Implementation of best management practices.
- Cessation of discharges.
- Remediation of contaminated sediments caused by violations of the NPDES permitting programme.

- Removal of illegally discharged dredged or fill material, and restoration of discharge sites.

Although fines can be imposed for CWA violations, monetary damages are not available.

Many water bodies with contaminated sediment are also currently the subject of clean-up efforts under the Comprehensive Environmental Response, Contamination and Liability Act.

Regulators can also impose clean-up and compensation obligations with respect to groundwater contamination under CERCLA and/or the Resource Conservation and Recovery Act.

Penalties

Violations of the CWA, such as discharging pollutants from a point source without a permit, can trigger significant administrative, civil, or criminal penalties. The statute sets out maximum penalties, but the EPA has increased the maximum amounts through regulation over time, most recently in July 2016. These inflation adjustments are expressly provided for by statute.

Civil penalties of up to US\$52,414 per day, per violation are available, although the maximum amounts are rarely imposed. The CWA also provides for criminal fines and imprisonment for negligent or knowing and wilful violations, as well as for false statements.

Violations of the SDWA can likewise trigger significant administrative, civil, or criminal penalties. Civil penalties of up to US\$54,789 per day per violation are available, as are criminal fines and imprisonment for tampering with public drinking water systems and for wilful violations of the UIC programme requirements.

AIR POLLUTION

7. What is the regulatory regime for air pollution (whether part of an integrated regime or separate)?

Under the Clean Air Act (CAA), the Environmental Protection Agency (EPA) establishes minimum standards for ambient air quality (NAAQS) for certain pollutants known as criteria pollutants (currently ozone, oxides of nitrogen, sulphur dioxide, particulate matter, lead, and carbon monoxide).

The EPA is also required to issue National Emissions Standards for Hazardous Air Pollutants (NESHAP) to address emissions of hazardous air pollutants.

In addition, the CAA requires the EPA to issue New Source Performance Standards (NSPS) and Existing Source Emission Guidelines for stationary sources.

The EPA is also authorised to publish emission standards for new motor vehicles and engines, as well as for non-road vehicles and engines (such as construction equipment, locomotives, marine vessels and aeroplanes). The EPA can also establish controls and prohibitions for fuels and fuel additives, including requirements relating to the use of renewable fuels in gasoline and diesel.

States are primarily responsible for ensuring compliance with most CAA requirements affecting stationary sources (*see Question 1, Key environmental legislation*). States can also impose more stringent requirements under their own air pollution control laws, although these laws may be pre-empted by certain federal CAA programmes. For example, states (other than California and states that adopt California's programmes) are pre-empted from regulating emissions from new vehicles and engines.

The CAA requires major sources of regulated air pollutants to obtain New Source Review/Prevention of Significant Deterioration permits before construction, modification or reconstruction of an affected source. Typically, states or local governments issue those permits, but the EPA issues them in some circumstances. Among

other requirements, permits specify what control technology or emission reductions must be achieved.

The CAA also requires major sources of air pollutants to obtain operating permits (also known as "Title V" permits) and to operate in compliance with the terms of those permits. A limited number of smaller sources (for example, all solid waste incineration unit and non-major sources that are subject to NESHAPs) must also obtain operating permits. Like pre-construction permits, states or local governments usually issue operating permits, but the EPA issues them in limited circumstances. Operating permits must contain all applicable CAA requirements that apply to a source.

For mobile sources, the EPA establishes emission standards for all types of on-road vehicles (cars, vans, pickup trucks, and medium and heavy-duty vehicles). It also sets standards for non-road equipment, as well as requirements for fuel content and testing. The EPA does not issue permits under the CAA's provisions governing mobile sources, but regulated entities must demonstrate compliance with applicable requirements in the manner specified by the EPA regulations (such as thorough testing of vehicle families before sale).

Prohibited activities

The CAA prohibits numerous activities such as:

- Constructing or operating a major source of air emissions without the necessary permits.
- Violating stationary source emission standards or the terms of a permit.
- Failing to comply with motor vehicle or non-road standards, or to meet requirements regarding fuels or fuel additives.
- Producing or consuming ozone-depleting substances except in accordance with applicable regulations and phase-out schedules.
- Violating record keeping and reporting requirements.
- Intentionally violating CAA standards or providing false information to regulators.

Clean-up/compensation

Generally, air emissions are not the subject of clean-up or compensation actions, but such actions may be available in some instances. If air emissions create a nuisance, affected entities may seek compensation. In recent years, citizen groups have tried to use other statutes (namely, the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)) to raise clean-up/compensation claims with respect to air emissions.

Generally, courts have rejected such attempts, holding that air emissions are beyond the reach of those statutes. But at least one federal district court has found a facility liable under RCRA for air emissions of perfluorooctanoic acid that landed on the ground.

Penalties

Violations of the CAA can result in significant administrative, civil, or criminal penalties. Maximum civil penalties for CAA stationary source violations are now up to US\$45,268 per day, per violation. Criminal violations can result in substantial fines and periods of imprisonment.

CLIMATE CHANGE, RENEWABLE ENERGY AND ENERGY EFFICIENCY

8. Are there any national targets or legal requirements for reducing greenhouse gas emissions, increasing the use of renewable energy (such as wind power) and/or increasing energy efficiency (for example in buildings and appliances)? Is there a national strategy on climate change, renewable energy and/or energy efficiency?

The government has taken several actions in recent years to reduce greenhouse gas (GHG) emissions. Most notably, in 2015, as part of signing the landmark multilateral Paris Climate Change Agreement to address climate mitigation and adaptation, the US submitted a voluntary target to reduce GHG emissions by 26% to 28% below 2005 levels by 2025. This national target synthesises several existing and newly promulgated rules and regulations, including:

- The Environmental Protection Agency (EPA) Clean Power Plan to regulate CO₂ emissions from existing power plants.
- The EPA's and the Department of Transportation's fuel economy standards for light-duty vehicles for model years 2012 to 2025 and for medium- and heavy-duty vehicles for model years 2014 to 2018 (Phase I) and 2021 to 2027 (Phase II).
- US Department of Energy's measures addressing buildings sector emissions.
- Revised minimum energy conservation standards for 29 categories of consumer appliances and commercial equipment.
- Building energy conservation code requirements.
- The EPA's approval of specific alternatives to high-GWP HFCs in certain applications through the Significant New Alternatives Policy (SNAP) programme.
- The EPA's standards for methane emissions from landfills and the oil and gas sector.

These regulatory programmes have been augmented by US participation in two separate international agreements: the Montreal Protocol and the Chicago Convention establishing the International Civil Aviation Organization (ICAO):

- In October 2016, 197 parties to the Montreal Protocol agreed to an amendment and new schedule to phase down hydrofluorocarbons (HFCs), used primarily in cooling and refrigeration, by between 80% and 85% by 2047.
- Also in October 2016, the ICAO General Assembly approved a resolution to implement the world's first global market-based measure to combat CO₂ emissions from aircraft by establishing a voluntary carbon offset scheme.

To complement these efforts, the US has established several programmes to promote energy innovation and to provide additional incentives for public and private sector deployment of clean energy and energy efficiency domestically and internationally, including:

- Extending federal tax incentives for qualifying clean energy projects.
- Extending federal loan guarantee authority for clean energy and carbon capture and sequestration projects.
- Issuing several executive orders requiring federal agencies to increase clean energy use at all federal facilities.
- Contributing US\$3 billion to the multilateral Green Climate Fund (GCF) created under the UNFCCC to reduce carbon pollution, deploy clean energy, and strengthen resilience in developing countries.

The Trump Administration has indicated it is likely to reconsider many of these programmes. For example, litigation challenging the Clean Power Plan and the associated new source performance standards for greenhouse gas emissions from power plants has recently been stayed, at least for a short time, to allow the new Administration time to reconsider and possibly rescind or revise both of those rules. That review and revision process is likely to take one to two years and will itself be subject to judicial review when completed

9. Is your jurisdiction party to the United Nations Framework Convention on Climate Change (UNFCCC) and/or the Kyoto Protocol? How have the requirements under those international agreements been implemented?

The US is a party to the UNFCCC and the new Paris Climate Change Agreement that came into force on 4 November 2016. As part of its participation under the new UNFCCC process, the US has submitted a voluntary Nationally-Determined Contribution (NDC) to reduce GHG emissions by 26% to 28% below 2005 levels by 2025 (see *Climate change, renewable energy and energy efficiency*). The NDC includes a range of existing and new regulations implemented under domestic law. As the new process is implemented, the level of ambition (in terms of GHG emissions reductions) contained in a party's NDC is likely to increase, which will require additional regulation.

Under the UNFCCC, the US provides public funding to support technology transfer, capacity building and climate mitigation and adaptation programmes in developing programmes. The US also leads the Innovation Lab for Climate Finance, a multilateral programme to mobilise private sector funding for low carbon and clean energy activities that leverage public resources. The Trump Administration has signalled that it may scale back or withdraw from these international accords.

10. What, if any, emissions/carbon trading schemes operate in your jurisdiction?

Several state-level carbon trading schemes currently operate in the US, including:

- **Regional Greenhouse Gas Initiative (RGGI).** This was the first mandatory cap-and-trade scheme in the US to limit carbon emissions from the power sector. RGGI is a multi-state co-ordination effort between Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. By 2020, the RGGI CO₂ cap is projected to contribute to a 45% reduction in the region's annual power-sector CO₂ emissions from 2005 levels, or between 80 and 90 million short tons of CO₂. Power plants within the region can comply with the cap by purchasing allowances from quarterly auctions, other generators within the region, or offset projects.
- **California Cap-and-Trade Regulation.** In 2013, California launched the first economy-wide emissions trading platform in the US. The programme uses a market-based allowance and offset scheme to lower GHG emissions from certain regulated sectors, including power plants and industrial refineries. This programme sets a goal of reducing GHG emissions to 1990 levels by the year 2020, and ultimately achieving an 80% reduction from 1990 levels by 2050.
- **EPA's Clean Power Plan.** This contemplates giving states the ability to establish intrastate or interstate emissions trading platforms to comply with the rule. These regimes would alternately be based on a baseline-and-credit or traditional allowance cap-and-trade platform. The Trump Administration has indicated it intends to reconsider and possibly rescind or substantially revise the Clean Power Plan.

ENVIRONMENTAL IMPACT ASSESSMENTS

11. Are there any requirements to carry out environmental impact assessments (EIAs) for certain types of projects?

Scope

The National Environmental Policy Act (NEPA) (42 U.S.C. Sec.4332) requires federal agencies to analyse and disclose significant environmental impacts for major federal actions. Actions subject to NEPA's requirements include activities undertaken by federal agencies such as construction of a federal highway project, as well as private development projects that require federal permits, approvals, or funding.

NEPA is a procedural statute which prescribes the procedures and analyses federal agencies must undertake, but does not require them to select the most environmentally beneficial alternative.

The level of NEPA analysis varies depending on the significance of anticipated environmental impacts:

- An Environmental Impact Statement (EIS) is required for federal actions significantly affecting the environment.
- If a federal action may have significant effects on the environment, a less extensive Environmental Assessment (EA) can be prepared. If the EA concludes that the project is not expected to have significant effects, then a Finding of No Significant Impact (FONSI) can be issued. If the agency concludes after the EA is prepared that the project is likely to have significant effects even after mitigation measures are implemented, an EIS is required.
- Certain types of actions are categorically excluded from an extensive environmental impacts analysis and therefore neither an EIS nor an EA is required.

An EIS and an EA must analyse the direct and cumulative impacts of a proposed action to address a broad range of environmental resources, including air, water, wildlife, cultural resources, recreation, noise, and visibility, among others. An EIS is typically a larger document (often several hundred pages) that can take years to complete and entail multi-million dollar costs, which are normally paid by the project proponent. Although EAs are intended to be more "concise," in practice, they can also be lengthy documents and can take up to one year or more to complete.

Some states have enacted "little NEPA" laws that apply to actions requiring state or local governmental permits, approvals, or funding. Those state laws can impose requirements that are more or less extensive than NEPA.

Permits and Multiple Regulators

Depending on the complexity of a project, more than one federal agency may be required to issue a permit or authorisation. One or more of those agencies can act as the lead federal agency. Other federal agencies and state and local governments can act as co-operating agencies.

Penalties and Judicial Enforcement

NEPA does not provide for monetary penalties. Failure to comply with NEPA's requirements, however, can result in preliminary or permanent injunctions from a federal court that prohibit implementation of project activities until a NEPA deficiency is remedied.

Environmental NGOs (see *Question 3*) frequently challenge the sufficiency of NEPA analyses in federal courts, seeking to prevent the commencement of projects, often through preliminary injunctions. NEPA litigation by environmental NGOs is common when a proposed project is controversial. State and local governments have also challenged NEPA analyses at times.

WASTE

12. What is the regulatory regime for waste?

Permits and regulator

The Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), establishes a programme for regulating the generation, transport, storage, and disposal of hazardous waste from the point of generation to its ultimate disposition. Hazardous wastes are either specifically listed by the Environmental Protection Agency (EPA) or states or exhibit one of four characteristics: ignitability, reactivity, corrosivity, or toxicity. The EPA has delegated its authority to regulate hazardous waste to most states, but it retains oversight responsibility: States can be more, but not less, stringent than the EPA. States and local governments also have primary responsibility over regulating non-hazardous solid waste. The EPA provides guidance and information to those governments and has established minimum criteria for the design and operation of municipal solid waste landfills and other solid waste disposal facilities.

Generators of hazardous waste must:

- Properly classify and identify their waste.
- Accumulate and temporarily store waste on site in compliance with regulations.
- Prepare waste for transportation off-site, including packaging, marking and labelling in compliance with Department of Transportation hazardous material regulations.
- Ship waste off-site to a permitted treatment, storage or disposal facility (TSDF) using a hazardous waste manifest.
- Comply with reporting and recordkeeping obligations.

RCRA requires a permit for the treatment, storage, and disposal of hazardous waste, although some exemptions may apply. TSDFs must comply with:

- General facility standards.
- Preparedness and prevention standards.
- Contingency plans and emergency procedures.
- Manifest, recording and recordkeeping requirements.
- Specific standards for each type of hazardous waste treatment, storage, and disposal unit.
- Closure requirements.
- Financial assurance.
- Groundwater monitoring.
- Air emission standards.

Prohibited activities

RCRA prohibits the land disposal of untreated hazardous wastes, as well as the disposal of hazardous wastes that do not meet applicable waste treatment standards. Hazardous waste generators and transporters and TSDFs must comply with the various standards and requirements discussed above or risk penalties for non-compliance.

Operator criteria

Criteria applicable to hazardous waste generators and TSDFs are discussed above. In addition, the EPA has established detailed technical criteria for operating municipal solid waste landfills that govern:

- Location.
- Operation.

- Design.
- Groundwater monitoring.
- Corrective actions.
- Closure and post-closure activities.
- Financial assurance.

The EPA has also developed detailed technical criteria for solid waste disposal facilities that are designed to protect resources such as:

- Endangered species.
- Surface and ground water.
- Floodplains.

Operators of such facilities must also take actions to prevent the spread of disease, comply with restrictions on open burning and land spreading of certain wastes, and implement various safety measures.

Special rules for certain waste

The EPA has developed alternative management standards for various wastes, including:

- Academic laboratory wastes.
- Cathode ray tubes.
- Household hazardous waste.
- Mixed radiological wastes.
- Polychlorinated biphenyls.
- Solvent-contaminated wipes.
- Special wastes (cement kiln dust waste, crude oil and natural gas waste).
- Fossil fuel combustion waste.
- Mineral and mineral processing waste.
- Universal waste (batteries, pesticides, mercury-containing equipment, and mercury lamps).
- Used oil.

States have varying programmes for universal waste. Some state programmes track the EPA's alternative management standards, while others address additional or fewer wastes by comparison. If a state does not specifically deem a waste that meets the definition of hazardous waste as a "universal waste" it must be managed as a hazardous waste.

The EPA continues to work on a number of hazardous waste initiatives, such as establishing specific management standards for hazardous waste pharmaceuticals and improving electronic waste management.

Penalties

Violations of RCRA can trigger administrative, civil, and criminal penalties. Maximum civil penalties are now US\$71,264 per day, per violation. Knowledge of violations can trigger criminal fines and imprisonment. In most cases, criminal penalties can double for subsequent violations. Authorised states generally take the lead in enforcing hazardous waste regulations, but the EPA retains enforcement authority.

ASBESTOS

13. What is the regulatory regime for asbestos?

Numerous federal laws and regulations have provisions addressing asbestos:

- **Clean Air Act (CAA).** This includes provisions for the Environmental Protection Agency (EPA) to set national emission standards for hazardous air pollutants, including asbestos. The EPA's regulations specify work practices governing demolition and renovation, and they impose restrictions on asbestos emissions and the removal of asbestos-containing waste.
- **Asbestos Hazard Emergency Response Act.** This directs the EPA to issue rules related to inspections of school buildings for asbestos-containing material, preparation of asbestos management plans, and response actions to prevent or reduce asbestos hazards.
- **Asbestos Information Act.** This requires manufacturers of certain asbestos-containing products to report production to the EPA.
- **Asbestos School Hazard Abatement Reauthorization Act.** This extended funding for asbestos abatement in schools and directed the EPA to increase requirements for training and accreditation related to abatement projects.
- **Safe Drinking Water Act.** This sets standards for drinking water quality for various contaminants, including asbestos.
- **Comprehensive Environmental Response, Compensation and Liability Act.** This imposes strict liability for the clean-up of asbestos released into the environment.
- **Asbestos Worker Protection Rule.** The EPA issued this under the Toxic Substances Control Act. It established requirements for state and local government employees involved in asbestos work who were not previously covered by workplace exposure limits and worker protection requirements under the Occupational Safety and Health Administration's regulations.

Prohibited activities

Non-compliance with the various requirements identified above (regulatory regime) and below (main obligations) can result in penalties.

Main obligations

Building owners and managers have specific requirements from schools for managing asbestos. They must:

- Follow work practices specified by the EPA under the CAA during demolition and renovation.
- Provide notice to regulators before demolition and before renovations of any buildings that contain a certain amount of asbestos or asbestos-containing material.

Additionally, the EPA's regulations:

- Prohibit certain manufacturing activities from emitting visible emissions.
- Impose air cleaning procedures following those activities.
- Impose requirements for the removal and disposal of asbestos-containing waste.

States and local governments may impose more stringent standards.

Permits and regulator

The EPA administers and enforces most of the statutes that contain provisions addressing asbestos, but it does not issue federal permits or authorisations with respect to covered activities.

Penalties

Violations of environmental laws can trigger substantial penalties. Most significantly, violations of the CAA may result in civil penalties of up to US\$95,284 per violation per day, and criminal penalties are also available for knowing or wilful violations, which can result in larger fines and/or imprisonment.

CONTAMINATED LAND

14. What is the regulatory regime for contaminated land?

Regulator and legislation

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as "Superfund", was enacted to address releases of hazardous substances to the environment. CERCLA imposes liability for and obligations to perform a wide range of investigation and clean-up activities, including reporting of releases of hazardous substances above specified quantities. CERCLA contains broad waivers of the sovereign immunity of the government, and federal agencies bear liability to the same extent as any private party. The Environmental Protection Agency (EPA) administers CERCLA in all 50 states and US territories, but states also play an active role in identifying, monitoring, and carrying out response activities at contaminated sites. In addition, many states have enacted similar laws to address remediation of contaminated sites.

Investigation and clean-up

The EPA has very broad authority to require the investigation and clean-up of contaminated sites. Investigation involves gathering all available information about a site to determine whether it poses a threat to human health or the environment, whether an emergency/short-term response is needed, or whether further investigation is needed. The EPA can undertake investigative activities itself (and seek reimbursement from responsible parties) or it can require private parties to conduct those activities subject to governmental oversight. The EPA can obtain information from private parties through information requests, and it can access their facilities to conduct sampling.

On identifying a site that warrants clean-up, the EPA:

- Determines the nature and extent of contamination.
- Evaluates the feasibility and effectiveness of various clean-up options.
- Develops a proposed clean-up plan, taking into account public comments and involvement.
- Undertakes remedial actions after a plan is approved.

Although the EPA and States may conduct all of these activities themselves, typically private parties are tasked with doing so subject to regulatory oversight. The EPA prefers to enter into settlement agreements (for example, administrative orders on consent or consent decrees) with potentially responsible parties who then undertake investigation and clean-up activities.

The EPA has authority to require that classes of facilities meet financial responsibility requirements to ensure that sufficient funds are available for clean-up. It has also issued guidance documents on financial assurance, including model agreements, bonds, and letters of credit, but it has not yet made regulations that impose mandatory requirements on any classes of facilities.

It is, however, in the final stages of developing financial responsibility requirements for portions of the hard rock mining industry.

For the longer term, the EPA is considering whether it should develop rules governing the chemical manufacturing, petroleum

and coal products manufacturing, and the electric power generation, transmission and distribution industries.

Penalties

CERCLA provides for statutory penalties if a potentially responsible party does not meet the requirements of a settlement agreement, violates statutory requirements, or fails to comply with a unilateral administrative order. The EPA recently raised the maximum civil penalty to US\$54,789, but the amounts actually imposed depend on various facts. CERCLA settlement agreements can also include stipulated penalty amounts that will apply for certain types of non-compliance with the settlement agreement. The agency also has the ability to recover up to three times the costs it incurs from a party's failure to comply with an administrative order.

15. Who is liable for the clean-up of contaminated land? Can this be excluded?

Liable party

The following parties can be liable under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

- Current owners and operators of a contaminated site where the release (or possibility of release) of hazardous substances occurred.
- Previous owners and operators of the contaminated site at the time hazardous substances were disposed.
- Any party who arranged for the disposal, treatment, or transport of the hazardous substances.
- Any transporter of hazardous substances that selected the site where the hazardous substances were brought.

CERCLA liability is:

- Retroactive and therefore parties may be liable for conduct that predated its enactment in 1980.
- Strict, meaning that a party cannot escape liability by claiming that it was not negligent or that it followed industry standards.
- Joint-and-several, so a single party may be held liable for the entire clean-up (although in practice, the harm caused by multiple parties is usually separated and liability apportioned accordingly).

Limitation of liability

CERCLA provides for defences to liability if the release was caused by an act of God, acts of war, or by acts/omissions of a third party with whom a potentially responsible party has no contractual relationship.

Additionally, CERCLA provides for various exemptions and protections from liability. For example, certain landowners may meet the criteria for a *bona fide* prospective purchaser, innocent landowner, or contiguous property owner, and they would be protected from liability.

State and local governments are not liable for costs that result from an emergency response to the release (or threatened release) of a hazardous substance if their conduct was not grossly negligent or if intentional misconduct was not involved.

Other exemptions and protections apply to clean-up contractors, certain residential, small business and non-profit generators of municipal solid waste, and parties who arrange for the recycling of certain substances.

Voluntary clean-up programme

The Environmental Protection Agency (EPA) has worked with states to encourage enactment of voluntary clean-up programmes.

Under its Brownfields Programme, the EPA provides grants and technical assistance to states, local communities, and other stakeholders to prevent, assess, clean up, and reuse brownfield sites. A brownfield is a property where expansion, redevelopment or reuse may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

Numerous federal laws and regulations aim to drive brownfields clean-up and re-use through financial incentives and regulatory requirements, including the provision of liability protection to certain classes of prospective purchasers.

States have set up voluntary response programmes including offering grants, loans and financial assistance to encourage voluntary clean-up by private parties, including a variety of tax credits, as well as enacting liability relief provisions to further incentivise voluntary action.

16. Can a lender incur liability for contaminated land and is it common for a lender to incur liability? What steps do lenders commonly take to minimise liability?

Lender liability

Lenders who hold an ownership interest in contaminated land are not liable under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) if they did not "participate in the management of the facility". This means either:

- Exercising decision-making control over environmental compliance related to the facility and consequently undertaking responsibility for hazardous substance handling or disposal practices.
- Exercising control at a level similar to that of a manager and consequently assuming responsibility over day-to-day decision-making on environmental compliance or over operational functions of the facility.

Minimising liability

The EPA's policy guidance identifies a broad range of activities that the EPA does not consider to be "participating in the management of a facility", including, but not limited to:

- Holding a security interest or abandoning or releasing a security interest.
- Merely having the capacity to influence or the unexercised right to control facility operations.
- Monitoring or inspecting the facility.

The EPA has also indicated that if a lender must foreclose on or take title to contaminated land, it can still remain exempt from liability after foreclosure as long as it did not participate in management before foreclosure.

Following foreclosure, the lender may:

- Maintain business activities.
- Wind up operations.
- Undertake a response action.
- Sell, re-lease, or liquidate the facility.
- Take actions to preserve, protect, or prepare the property for sale.

The lender may conduct those activities if it tries to sell or re-lease the property or otherwise divest itself of the property at the earliest

practicable, commercially reasonable time, on commercially reasonable terms.

17. Can an individual bring legal action against a polluter, owner or occupier?

Individuals who suffer personal or property damage can bring actions against a polluter, owner, or occupier under the "citizen suit" provisions of many federal and state environmental statutes.

In the case of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and similar state laws, individuals can bring statutory claims for investigation and clean-up costs.

Responsible parties under CERCLA can also seek contributions from other liable third parties.

Parties can also seek damages or injunctive relief under common law doctrines, such as in nuisance or trespass.

Many environmental statutes allow individuals to recover attorney fees and costs if they win their lawsuits, but those statutes often do not allow for the recovery of damages.

HYDRAULIC FRACTURING

18. Is fracking being pursued or considered in your jurisdiction? If so, please describe the regulatory framework that applies to manage environmental risks.

Over the past decade, hydraulic fracturing and horizontal drilling have been pursued actively in various areas of the US to access previously unrecoverable resources, especially in shale formations. Hydraulic fracturing itself has been developed and used in the US in many places for over a half-century. As hydraulic fracturing activities have increased, so have federal, state and local regulations governing these activities.

Generally, regulatory requirements for hydraulic fracturing have been the primary responsibility of state governments, although the Environmental Protection Agency (EPA) has developed some rules about hydraulic fracturing using diesel fuels (under the Safe Drinking Water Act's Underground Injection Control programme) as well as Clean Water Act and Clean Air Act rules generally applicable to oil and gas activities.

State regulations vary nationwide, but generally they address:

- Well construction and integrity.
- Well permitting and setback.
- Disclosure of chemicals used during hydraulic fracturing.
- Storage and handling of fracturing fluids and recovered waste fluids.

Many local governments have successfully banned hydraulic fracturing, while in other states, courts have found that such bans are pre-empted by state laws regulating oil and gas activities.

In 2015, the Department of the Interior made federal regulations for hydraulic fracturing on public lands, which covered, among other things:

- Protection of groundwater supplies.
- Disclosure of chemicals used during operations.
- Standards for interim storage of recovered waste fluids.

A federal court invalidated those regulations in June 2016, but the government has appealed against that decision.

Consenting and environmental impact assessment

To the extent that hydraulic fracturing is allowed under state and local laws, permits are required to carry it out. Some states have enacted permitting requirements that are unique to hydraulic fracturing, while others permit activities under their general oil and gas permitting regulations.

Hydraulic fracturing on federal land requires permits from the federal government and triggers the requirement for an analysis of impacts under the National Environmental Policy Act (NEPA). In September 2016, a federal court held that the federal government violated NEPA by issuing a land use plan that would allow oil and gas development (including hydraulic fracturing) on over one million acres of federal lands in California. That court criticised the government for failing to consider specifically the potential impacts of hydraulic fracturing.

Other issues

Hydraulic fracturing has generated considerable tort litigation over the years, with some cases resulting in substantial damage awards to the plaintiffs. Interestingly, an EPA study released in 2015 addressed the issue of drinking water contamination, which is often the focus of tort claims. Although that study included various qualifications and disclaimers, the EPA concluded that it did not find evidence that hydraulic fracturing has led to widespread impacts on drinking water resources in the US. In August 2016, however, the EPA's Science Advisory Board asked the EPA to provide quantitative analysis to support that conclusion.

An emerging issue is whether the injection of wastewater is contributing to increased earthquakes. In early 2016, an environmental group sued several oil and gas companies under the Resource Conservation and Recovery Act (RCRA), alleging that such injections have led to increased earthquakes in Oklahoma, thereby creating an imminent and substantial danger to the public health and the environment. More recently, Oklahoma regulators have ordered numerous disposal wells to be closed in response to concerns over increased seismic activity, and regulators in Kansas have imposed limits on how much wastewater can be injected into portions of the State based on similar concerns. The EPA released a report in August 2016 concluding that there is a correlation between increased seismic activity in North Texas and wastewater injection.

ENVIRONMENTAL LIABILITY AND ASSET/SHARE TRANSFERS

19. In what circumstances can a buyer inherit pre-acquisition environmental liability in an asset sale/the sale of a company (share sale)?

Asset sale

Generally, the seller's liabilities remain with the seller in an asset sale, except where the:

- Buyer agrees to assume the seller's liabilities.
- Sale amounts to a *de facto* merger or consolidation.
- Buyer is a "mere continuation" of the seller.
- Transaction was a fraudulent attempt to escape liability.

Buyers may, however, incur liability resulting from direct ownership or operation. (See *Question 15* for potential limitations on the clean-up liability of buyers of contaminated land under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).)

Share sale

If a buyer acquires a company by acquiring shares, merging or consolidating, it generally assumes all obligations and liabilities of

the seller, including those that result from former ownership and operation.

20. In what circumstances can a seller retain environmental liability after an asset sale/a share sale?

Asset sale

A seller retains environmental liability after the sale of contaminated property. Under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and similar state laws, a former owner at the time of a hazardous substance release is a liable party. Therefore, the seller may still be liable for clean-up costs, as well as statutory or tort damages. However, it is possible for a buyer to contractually assume a seller's liabilities. The assignment of liability between the parties will not relieve the seller of liability to the governmental authority.

Share sale

A seller typically does not retain liability after a share sale, merger or consolidation (see *Environmental liability and asset/share transfers*). Individuals within the selling entity, however, may remain liable if they were personally involved in activities that resulted in contamination.

21. Does a seller have to disclose environmental information to the buyer in an asset sale/a share sale?

Whether an asset sale or share sale is involved, there is no federal statutory requirement to disclose environmental information to a buyer. Nonetheless, in many transactions, the parties will reach an agreement concerning what information will be disclosed. Some states require disclosure of certain environmental information. In addition, certain states, such as Connecticut and New Jersey, have property transfer laws that require the investigation and, if contamination is discovered, remediation of properties at the time of transfer.

22. Is environmental due diligence common in an asset sale/a share sale?

Scope

Environmental due diligence is common in asset and share sales, especially if the sale involves real property or companies with either existing or past industrial operations. Lenders often require environmental due diligence regarding real property before issuance of a loan.

Environmental due diligence typically covers:

- Contamination at currently and previously owned, operated or leased properties.
- Potential liability for off-site contamination.
- Compliance with environmental and health and safety laws, including permits issued under those laws.
- Other litigation and enforcement risks.
- Potential future regulations that may be relevant.

Types of assessment

There is no uniform way to conduct environmental due diligence, although it typically begins with a data review of environmental information made available by the seller.

A party seeking to establish the innocent landowner or *bona fide* prospective purchaser defence under CERCLA must conduct "all

appropriate inquiries" regarding the history, use, and environmental condition of the real property. EPA regulations set out the standards and practices for "all appropriate inquiries". Alternatively, the EPA regulations authorise the use of ASTM industry standards for Phase I environmental site assessments to comply with the "all appropriate inquiries" requirements.

Phase I involves:

- A review of records.
- Site inspection.
- Interviews with owners, occupants, neighbours and local government officials.
- The issue of a written report documenting the assessment and identifying any environmental conditions at the site.

If the Phase I identifies potential contamination of the site, a Phase II assessment may be conducted, with the seller's consent, which involves sampling to determine the presence and extent of contamination.

Environmental consultants

Environmental consultants are routinely involved in environmental due diligence on both sides of the transaction and are the parties that perform the Phase I and Phase II assessments described above.

23. Are environmental warranties and indemnities usually given and what issues do they usually cover in an asset sale/a share sale?

Asset sale

Environmental representations and warranties and indemnities are commonly given in asset sales and typically cover the following issues:

- Compliance with all environmental laws and regulations, including obtaining and complying with all required permits.
- The absence of any threatened or pending lawsuits or administrative enforcement actions against the seller.
- Knowledge of any environmental impairment or condition on the property other than what the seller discloses.
- The status of any investigation or remediation of a known environmental impairment or condition, including who will bear responsibility for the remediation following the sale.
- The presence of underground storage tanks, asbestos-containing materials, or toxic chemicals.
- Consent decrees or settlement agreements to which the seller is a party.
- The seller's breach of environmental representations and warranties.
- Damages incurred by the buyer relating to environmental liabilities retained by the seller.
- Whether the seller has provided all environmental reports and documents.

Share sale

Environmental representations and warranties and indemnities are usually provided in share sales, and they cover the same sorts of issues as those given in an asset sale.

24. Are there usually limits on environmental warranties and indemnities?

Environmental representations and warranties and indemnities commonly expire after an agreed time, which may correspond to applicable statutes of limitations. In some states, indemnities that do not have time limits are limited to either the statute of limitations or a reasonable period of time.

Parties to a transaction can also negotiate caps on warranties and indemnities, and the extent of these will vary depending on the extent and nature of the potential environmental liability.

In other cases, the expiry of representations and warranties and indemnities may be conditional on receiving an official authorisation or approval, such as the issuance of a "no further action" letter documenting that a site clean-up has been completed.

REPORTING AND AUDITING

25. Do regulators keep public registers of environmental information? What is the procedure for a third party to search those registers?

Federal and state regulators maintain a broad range of environmental information online and, to a lesser extent, in hard copy format, that is available for public review. Available information includes:

- Facility permits and related documentation.
- Spills.
- Contaminated sites.
- Violations and resulting penalties or settlements.
- Environmental covenants restricting real property.

More information has been available online in recent years, although some federal and state agencies are better at maintaining and updating their websites than others. Information that is not readily accessible online can be obtained in hard copy, either in person or by written or telephone request.

In some cases, third parties must submit formal, written requests under the Freedom of Information Act (FOIA) or analogous state laws. Those laws require governmental agencies to disclose documents under their control unless a statutory exemption applies to prevent disclosure.

In addition, environmental consultants can perform searches of commercial databases that contain information compiled from various public databases.

26. Do companies have to carry out environmental auditing? Do companies have to report information to the regulators and the public about environmental performance?

Environmental permits often impose specific, periodic monitoring requirements, although there is no general requirement for companies to conduct environmental auditing. Companies in the US nevertheless have an incentive to carry out auditing because the Environmental Protection Agency (EPA) and some states have audit policies that provide for reduced penalties if violations of environmental laws are uncovered through a voluntary audit, disclosed to the regulator, and timely remedied.

Reporting requirements

Environmental permits also often impose periodic reporting requirements. In addition to reporting emissions and discharges in accordance with those permit terms, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Emergency Planning and Community Right-to-Know Act (EPCRA) require immediate reporting of certain types of substances that are released into the environment above permitted thresholds. Reports must be made to the National Response Center as well as state and local emergency response planning officials.

States have similar release reporting laws and regulations.

27. Do companies have to report information to the regulators and the public about environmental incidents (such as water pollution and soil contamination)?

See *Reporting and auditing*.

28. What powers do environmental regulators have to access a company?

Environmental regulators, both federal and state (see *Environmental regulatory framework*) typically have broad access to conduct inspections under most environmental statutes. Regulators can obtain and review documents before conducting site visits. During site visits, they can interview company employees or representatives, review records and reports, collect samples, and observe and document conditions and operations (via written reports, photographs, or videos).

29. What obligations are there on companies to report on environmental issues in their annual corporate reports?

US securities laws require publicly traded companies to report certain environmental issues in their annual reports and financial statements. This information includes:

- A description of the "material" effects that compliance with federal, state and local environmental laws regulating the discharge of materials into the environment will have on:
 - earnings;
 - capital expenditures;
 - the competitive position of the company and its subsidiaries.
- Any material pending legal proceedings which are:
 - material to the business or financial condition of the company;
 - involve a claim for damages or potential monetary sanctions that exceed 10% of the current assets of the company;
 - proceedings where a government body is a party and there are potential monetary sanctions, unless the company reasonably believes that the sanctions will not exceed US\$100,000.
- Disclosure of any known trends or uncertainties that have or might have a material, favourable, or unfavourable impact on net sales or revenues or income from continuing operations.
- In 2010, The Securities and Exchange Commission (SEC) issued formal guidance for publicly traded corporations on disclosure of certain climate change-related business, physical and regulatory risks under existing SEC disclosure rules. However,

this guidance was ambiguous as to how companies should measure these risks. Further, the SEC failed to define or clarify any thresholds for what constitutes “materiality” of these risks to each individual company.

ENVIRONMENTAL INSURANCE

30. What types of insurance cover are available for environmental damage or liability and what risks are usually covered? How easy is it to obtain environmental insurance and is it common in practice?

Types of insurance and risk

These include:

- Clean-up cost caps. These provide protection against the possibility that clean-up costs will exceed original projections.
- Pollution legal liability policies. These policies provide coverage for developers and owners for clean-up costs, property damage, and personal injury claims, subject to varying exclusions.
- Secured creditor policies. This type covers lenders in the event that a borrower defaults on a loan or if pollution results in a loss of collateral value.

Obtaining insurance

Environmental insurance is widely available, although it is not uniformly obtained.

However, the Surety & Fidelity Association of America and individual companies in the financial industry have raised concerns about the ability to provide the sort of coverage that the EPA expects under its forthcoming financial responsibility rules for the hard rock mining industry.

ENVIRONMENTAL TAX

31. What are the main environmental taxes in your jurisdiction?

There are a variety of federal excise taxes, including those on:

- Petroleum products.
- Chemical feedstocks.
- Ozone-depleting chemicals.

Tax rates and tax liabilities vary depending on the particular tax involved. In addition, some states and local governments impose environmental taxes on, for example, the disposal of hazardous waste.

Federal, state, and local governments also offer an assortment of tax incentives, including for:

- Wind.
- Solar.
- Other forms of clean energy.
- Carbon capture.
- Clean-up and reuse of brownfields.

REFORM

32. What proposals are there for significant reform (changes) of environmental law in your jurisdiction?

Proposals for significant environmental reform include:

- **Toxic Substances Control Act (TSCA).** Now that Congress has passed legislation overhauling chemicals regulation in the US, the Environmental Protection Agency (EPA) must issue numerous rules and take other actions in the coming months and years to implement the new changes. These are mandatory actions, many with relatively short deadlines, although courts have held that the EPA generally does not lose authority to regulate simply because a Congressional deadline has lapsed.
- **Clean Air Act (CAA).** President Trump has issued an Executive Order directing EPA to revisit and possibly reconsider any regulations that potentially burden the development or use of domestically produced energy resources, including fossil fuels. EPA has already indicated that, under this Order, it will reconsider the Clean Power Plan and the power plant new source performance standards, which seek to reduce carbon dioxide emissions from electricity generation. Whether it will reconsider the “endangerment finding” that underpins these regulations is unclear. EPA has also signaled through litigation filings that, under this Order, it may also revisit regulations governing power plant emissions of hazardous air pollutants, and national ambient air quality standards for ground level ozone.
- **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).** As discussed in *Question 14* above, the EPA is on the verge of issuing proposed financial responsibility requirements for facilities within the hard rock mining and mineral processing industries.

Because that proposal must undergo public comment and further extensive review, any final rule is likely to be at least one to two years away.

The EPA has also identified a number of other industries for potential financial responsibility rules in the future, but it is unclear such rules will ever be brought into operation.

- **Renewable Fuel Standards (RFS).** The RFS programme requires transportation fuel sold or introduced into commerce in the US to contain increasing volumes of renewable fuel each year. Over the past few years, there have been legislative proposals to either reform (by capping the amount of ethanol in transportation fuel, for example) or to outright repeal the RFS programme. There is both bi-partisan support for and opposition to RFS reform, but so far there is no indication that the Trump Administration will revisit the RFS programme.
- **Resource Conservation and Recovery Act (RCRA).** EPA recently updated the hazardous waste regulations applicable to generators, essentially reorganising requirements, providing greater flexibility in how hazardous waste is managed, and closing gaps in the regulations. The new rules do not apply in states that have been delegated authority to regulate hazardous waste in lieu of EPA until those states adopt the new rules. However, the states must adopt only the parts of the new rules that are more stringent than existing regulations and not the revisions that are less stringent.

THE REGULATORY AUTHORITIES

US Environmental Protection Agency

Main activities. Implements federal environmental laws; provides grant funding to states and other entities for a range of environmental projects; studies emerging environmental issues. Areas of focus include:

- Air pollution.
- Chemicals and toxic substances.
- Water pollution.
- Contaminated land and clean-up.
- Pesticides.
- Waste.

W www.epa.gov

US Department of the Interior

Main activities. Protects and manages natural and cultural resources in the US; provides scientific and other information on those resources. Areas of focus include:

- Managing and conserving land and water resources.
- Managing onshore and offshore energy projects on federal land.
- Maintaining recreational sites.
- Conserving fish and wildlife.

W www.doi.gov

US Army Corps of Engineers

Main activities. Administers and enforces Clean Water Act Section 404 permitting requirements (discharges of dredged or fill material) and provisions of the Rivers and Harbors Act concerning work or structures involving navigable waters.

W www.usace.army.mil

US Department of Commerce, National Marine Fisheries Service

Main activities. Responsible for the stewardship of US's ocean resources and their habitat.

W www.nmfs.noaa.gov

US Department of Justice, Environment and Natural Resources Division

Main activities. Brings enforcement actions against violators of civil and criminal pollution-control laws; defends challenges to US government programmes and activities; brings and defends cases under wildlife protection laws.

W www.justice.gov/enrd

ONLINE RESOURCES

W www.gpo.gov/fdsys/browse/collectionUScode.action?collectionCode=USCODE

Description. An up-to-date, electronic version of the US Code, which contains all federal laws. This website includes links to PDFs of the official versions of all laws.

W www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR

Description. An up-to-date, electronic version of the US Code of Federal Regulations, which contains all agency regulations implementing the federal environmental statutes. This website includes links to PDFs of the official versions of all regulations.

Federal agencies also maintain links to relevant environmental laws, regulations, and guidance on each of their websites, which are provided above. Generally, those links are up-to-date, but use links at www.gpo.gov to download official versions.

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