AMERICAN RE

A Survey of

INTERNATIONAL ENVIRONMENTAL REMEDIATION REGULATIONS

INTRODUCTION

Many countries have enacted laws over the years requiring the remediation of contaminated property through the use of private and/or public funds. Some of these statutes are modeled after the United States' Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"). Other countries have adopted laws involving a different system of regulation which are supported by unique policy considerations. In all cases, distinctions in enforcement procedures and compliance standards are commonplace.

This booklet is primarily intended to report on basic characteristics of legislation enacted in certain industrial and developing countries which governs the remediation of contaminated property. Where no statute requiring the cleanup of contaminated land has been enacted in a particular country, this booklet provides basic information about environmental laws that do exist. These laws typically govern the generation, use, storage and/or disposal of hazardous substances.

For each reported country, this booklet discusses:

- local and historical information
- relevant environmental laws
- the governmental agency authorized to enforce laws and common enforcement procedures
- relevant cleanup, emission, and/or disposal standards

The information contained in this booklet is designed to provide readers with a general overview of current environmental regulations in the reported countries. It is not intended to be a complete discussion of all environmental regulations that exist in each country. It should also be noted that this booklet does not contain a discussion of case law which may provide additional construction and interpretation of relevant statutes. Readers of this booklet who are seeking information regarding a particular country's environmental regulations should obtain a complete legal opinion from appropriate legal counsel. The information contained in this booklet is not intended to provide legal advice.

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Introduction

Argentina's Constitution imposes a duty to preserve the environment by granting each citizen the right to enjoy a healthy, well-balanced environment suitable for human development. This constitutional right provides the basis for most environmental legislation in Argentina, which primarily focuses on regulating the generation, handling and disposal of hazardous waste. Notably, Argentina's environmental legislation requires a polluter to repair damage to the environment.

Legislation/Regulations

Environmental liability in Argentina is governed by general principles of its Civil Code, which create obligations for polluters to indemnify individuals for damages suffered from polluting activities. Argentinean law requires polluters to restore the environment to its previous state.

Argentinean environmental laws regulate the generation, handling, and disposal of wastes listed in regulations as dangerous or hazardous. Under the Hazardous Waste Law No. 24,051 of 21 January 1992, "Hazardous" material is defined as any substance that may cause damage, directly or indirectly, to living beings, or that may pollute air, water, soil or the environment. In most circumstances, entities generating hazardous waste must register and obtain appropriate authorization from the government to operate. Additionally, the facilities of registered entities are subject to inspection by the government and regulations have been established governing the treatment and disposal of industrial waste solids. Environmental protection in areas such as oil and energy industries, and agriculture, are regulated by specific legislation.

Enforcement Agency/Procedures

In Argentina, environmental regulations are enforced at both the federal and provincial level. Federal regulations are enforced by the Secretariat of Natural Resources and the Environment ("SNRE"), which is part of the executive branch in Argentina. Federal law applies to any area under federal jurisdiction and to inter-province transportation of hazardous waste. Provinces may enact their own legislation if it does not conflict with constitutional principles and the regulated matter is not subject to federal jurisdiction.

Administrative or criminal penalties may be imposed for violations of Argentina's environmental laws. Administrative sanctions include fines, temporary or permanent suspension of operations, and restrictions on future activities through the cancellation of registration permits. The type of penalty that is assessed depends on the gravity of the offense at issue and the offender's history of prior violations. Additionally, environmental violations may be punished through criminal fines or, in some instances, imprisonment. Penalties in this regard are governed by Argentina's Criminal Code.

Compliance Requirements

Argentina's environmental laws are primarily designed to regulate the emission and disposal of hazardous substances. All entities that generate hazardous substances must register with the government and are subject to inspections and penalties for non-compliance. Additionally, Argentina also regulates the disposal of industrial waste solids. Failure to comply with these regulations may result in fines, suspension of operations, or the obligation to restore polluted land to its previous state.

Introduction

Environmental matters in Australia are regulated at the state and territorial level. Each state and territory has enacted some form of legislation requiring the identification and remediation of contaminated land. The states and territories, in conjunction with the commonwealth government, entered into the Inter-Governmental Agreement on the Environment, designed to create a more uniform national approach to legislation governing environmental standards.

Legislation/Regulations

The statutory regulations that are available to require assessment of contamination and remediation of land, and to manage the development and future use of contaminated land, vary in each jurisdiction. Typically, state and territorial legislation require that polluters, owners, current occupiers of land, or local or state governmental authorities make contamination assessments and, if necessary, remediate contaminated land. Liability in Australia under remediation statutes is strict, and governmental authorities are empowered to recover costs from polluters and landowners for investigation and remediation. Some jurisdictions, for example, Victoria, recognize an "innocent occupier or purchaser defense," which may be raised when land was contaminated by a previous owner.

Queensland is the only jurisdiction in which an owner or occupier of contaminated land is obligated to notify a regulatory authority of contamination. Under The Queensland Contaminated Land Act of 1991, owners of land with knowledge of contamination, or who suspect contamination, as well as local government authorities, have a legal obligation to report contamination. The Act also requires that any person intending to sell or otherwise transfer a contaminated site must disclose to the purchaser in writing all information regarding the presence of contamination on the land.

Efforts to unify environmental regulations within Australia have occurred at both the commonwealth and state level. In 1992, the Inter-Governmental Agreement on the Environment created a national Environmental Protection Authority ("EPA"), which is charged with the responsibility of establishing national guidelines for the assessment and remediation of contaminated sites. At the state level, guidelines were adopted from the Australian and New Zealand Environment and Conservation Council, established in January, 1992. The state-implemented guidelines have no legislative force, rather they have been used by state authorities and local industries as a guide in the proper assessment and management of contaminated sites. The guidelines recommend that each state and territorial jurisdiction adopt a set of common fundamental principles to be incorporated into future legislation regarding site assessment, cleanup procedures and mechanisms for community involvement.

Enforcement Agency/Procedures

Remediation activities are regulated at the state and local level in Australia. Typically, state and local authorities have the power to investigate property and order the remediation of contamination. State and local authorities also have the authority to conduct remediation activities and seek reimbursement for expenses from polluters and landowners. Civil penalties may be imposed for failing to comply with administrative orders.

Compliance Requirements

Remediation standards vary among states and territories in Australia. All states and territories have enacted similar provisions requiring that contaminated land be remediated to eliminate future risks to human health and the environment. Again, the future anticipated use of the land is a factor that will be considered by state and local authorities in developing remediation plans. For example, Queensland generally requires that contaminated land be restored to a state where threats to human health or the environment are eliminated. However, Queensland does not always require land to be cleaned to background levels of contamination. Restrictions on future land use may be established in conjunction with the development of a remediation plan.

Introduction

Austria maintains a system of administrative provisions regulating toxic substances and pollution of the air, water and soil. Although Austrian environmental law is primarily designed to regulate and limit harmful pollution emissions, the law also provide a basis to compel a polluter or landowner to clean up contaminated land.

Legislation/Regulations

The Water Substances Restoration Act of 1989 provides that any individual or entity who has either illegally or negligently caused pollution, or as the owner of property has consented or tolerated pollution, can be held liable for the cost of cleaning up contaminated land. The government has the authority to clean up contaminated land itself and seek reimbursement from the polluter or landowner, or it may compel the person or entity responsible for the hazardous condition to remove the waste and undertake the appropriate remediation work.

The Waste Management Act of 1990 provides a basis for the government to compel remediation of contaminated land. Under the Waste Management Act, an innocent landowner may only be compelled to clean up polluted land if the person or entity responsible for the pollution cannot be identified. In such circumstances, the owner of the property may only be ordered to conduct remediation if the owner consented to the deposit of waste on the land, tolerated the waste for a sufficient period of time, or did not take adequate precautions to prohibit unauthorized dumping of hazardous waste on the land. A subsequent purchaser may also be held liable if, at the time of purchase, the purchaser had knowledge that the land was contaminated or could have learned of the contamination through diligent inquiry.

Enforcement Agency/Procedures

The Austrian Federal Minister of the Environment is responsible for enforcing the provisions of the Waste Substances Restoration Act and the Waste Management Act. Environmental matters are generally regulated at the local level unless federal legislation has been implemented regarding a specific subject matter. Additionally, local provinces in Austria have the authority to implement environmental legislation of their own.

Austrian law provides for the use of public funds to remediate contaminated land in cases where no responsible party can be found or the cost of cleanup is too high for a polluter or landowner to finance.

Compliance Requirements

Remediation standards are set on a case-by-case basis and generally require that land be made suitable for its intended use.

Introduction

Belgium is a federal state composed of three regions: the Flemish Region, the Walloon Region (French) and the Brussels Region (German). Regional authorities regulate almost all sectors of environmental policy, with the federal government having jurisdiction over the transportation of waste, radioactive materials and the protection of the North Sea.

Legislation/Regulations

All regions in Belgium have enacted legislation regulating the emission of air and water pollution and the disposal of hazardous wastes. Only the Flemish Region has enacted legislation requiring that contaminated land be cleaned up. The Flemish Decree of February 22, 1995, grants authorities the power to force a polluter or landowner to remediate contaminated land that poses a serious threat to human health or the environment. The provisions of the 1995 Flemish Decree have no retroactive application; however, authorities may suspend or revoke licenses to prevent further environmental damage.

Under the 1995 Flemish Decree, if polluters or existing landowners are insolvent or refuse to conduct cleanup activities, or if no responsible party can be found, regional authorities may conduct cleanup activities and attempt to obtain reimbursement at a later date.

The 1995 Flemish Decree also provides for the establishment of a Register of Contaminated Land for the purpose of prohibiting transfers of land to unsuspecting buyers. As such, contaminated land cannot be sold without a certificate from regional authorities notifying the buyer of existing environmental problems.

Enforcement Agency/Procedures

All three Regions have regulations concerning air and water pollution emissions. Enforcement is monitored through the issuance of permits and governmental inspections of facilities.

In the Flemish Region, the Openbare Valaamse Afvalstoffen Maatschappij (“OVAM”) is the administrative body that has the authority to investigate contaminated land and to order remediation activities. In the absence of an agreed remediation plan, illegal activities are reported to courts and state prosecutors, who then decide whether an action to force remediation will be pursued by the government.

Compliance Requirements

Specific standards for the cleanup of contamination have yet to be enacted. Under the 1995 Flemish Decree, governmental authorities and responsible parties may negotiate cleanup standards, taking into account future anticipated use of the land at issue.

Introduction

Environmental protection in Canada is shared between the federal and provincial governments. The Canadian federal government regulates specific environmental issues flowing from federal jurisdiction, such as the protection of fish and fish habitat, transboundary pollution, and transboundary movement of goods or waste. In contrast, Canadian provinces have jurisdiction over most businesses operating within their territories and, therefore, have the authority to regulate all operations that have an environmental impact within their boundaries.

Provinces have historically strongly resisted any expansion of federal governmental jurisdiction, including environmental jurisdiction. This has resulted in a fragmented and often contradictory scheme of federal and provincial environmental regulation. Canada's federal environmental regulations are discussed below. An additional section has been added to address Canada's most industrial provinces: British Columbia, Ontario and Quebec.

Legislation/Regulations

Federal environmental protection legislation in Canada is predominantly contained in three main statutes: the Canadian Environmental Protection Act ("CEPA"); the Canadian Environmental Assessment Act; and the Fisheries Act.

CEPA's main provisions are limited to the regulation of specific toxic substances and maritime dumping. CEPA's key feature is cradle-to-grave regulation. Under CEPA, the government regulates the manufacture, use and disposal of various toxic substances identified in the statute through various permit and registration procedures. The federal government's authority to regulate these activities was successfully challenged on constitutional grounds by a provincially-owned utility in 1995. The challenge arose after the utility was charged under CEPA for the release of PCBs into the environment. The lower court's ruling was affirmed by the Quebec Court of Appeals and has been appealed to the Supreme Court of Canada. If CEPA is ultimately ruled unconstitutional, the legislation may be of little value in the future.

The Canadian Environmental Assessment Act was enacted in 1995. Under the Act's provisions, federal government projects, projects funded with federal money, or projects constructed on federal land must undergo a federal assessment process by the Ministry of National Health and Welfare. The Ministry has relatively broad power to establish lists of toxic substances, to set standards regarding emissions, to inspect facilities and to order remedial activities relating to water and air pollution.

The Fisheries Act contains federal controls on water pollution "deleterious" to fish or causing habitat depletion. This Act has been used by the federal government to regulate such items as pulp mill effluents and mining operations. Although modest in title, this Act is a central piece of federal environmental protection legislation in Canada.

Enforcement Agency/Procedures

Most environmental statutes are enforced by the Ministry of National Health and Welfare. Nonetheless, federal environmental jurisdiction is limited, and a significant amount of environmental regulation and enforcement occurs at the provincial level.

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Compliance Requirements

The Ministry has the authority to declare substances "toxic" and to regulate the generation, use and disposal of such substances. Additionally, the Ministry has the power to inspect facilities and, if necessary, interrupt operations to ensure compliance with environmental standards.

PROVINCES

British Columbia

In British Columbia, the Waste Management Act provides cradle-to-grave regulation of hazardous waste and imposes extensive licensing requirements for handling, storage, treatment and destruction of hazardous waste. The Act also prohibits the unregulated discharge of sewage or other waste into water or upon land without a permit or the approval of the provincial government. The Waste Management Act was amended in 1990 to provide for contaminated site remediation through the issuance of "certificates of compliance."

The Environmental Management Act requires industrial facilities to submit environmental impact assessment statements. The government is empowered to review assessment statements, force the modification of detrimental production processes and, if necessary, prohibit further environmentally unsound activities. The Ministry also has the authority to declare environmental emergencies and take remedial actions.

Ontario

Ontario also maintains extensive environmental regulations requiring entities to obtain permits for generating, storing and disposing of hazardous waste. The Ontario Environmental Protection Act empowers authorities to order current and previous owners and occupiers of real estate to clean up property contamination and/or hazardous waste spills. The government may order an offender to do everything practical to prevent, eliminate or reduce the "adverse affects" of the pollution on water or land, and to restore the affected water or land to its natural condition, if possible. If an offending party fails to take remedial action, the government may perform cleanup activities and sue for reimbursement. The legislation allows owners who have paid for remediation to bring subsequent civil actions for contribution against former owners or polluters.

The Act contains a very broad definition of what constitutes "adverse affects" in relation to discharges, including impairment of environmental quality, adverse affects on health or safety, and property damage. Extensive penalties, including monetary fines, may be assessed against a polluter, and individuals may be subject to prison terms for certain offenses. Corporate directors also have a personal duty to exercise reasonable care to prevent corporations from causing or permitting environmental damage and can, in certain circumstances, be held criminally liable for wrongful conduct.

The Ministry of Environment and Energy has the authority to issue cleanup orders and regulate remediation activities. Generally, land must be restored to background levels of contamination. However, the Ministry has the power to authorize site-specific cleanup criteria based on the location of contaminated land and anticipated future use. In such situations, regulations require "registration on title" to notify future owners of the past environmental condition of the property and the possibility of contamination at certain depths.

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Compliance Requirements

PROVINCES

Quebec

Under Quebec's Environmental Quality Act, the Ministry of Environment is responsible for implementing policy to protect the environment. Hazardous waste emissions, land deposits, and discharges into the atmosphere, water or soil in concentrations exceeding standards in government regulations is prohibited. Additionally, manufacturers are prohibited from emitting, depositing or releasing any contaminant without obtaining a "depollution attestation" from the Ministry setting forth permissible contaminant levels and the methods and equipment required to minimize contaminant levels.

Violations of the Act may be punishable by monetary fines and/or imprisonment. Additionally, any director or officer of a corporation who, by means of order or tacit authorization, causes a corporation to contravene the Act can be held personally liable for the same penalties.

Introduction

The Chilean government has only recently begun to enact legislation to address environmental problems, with the primary focus on regulation of air and water pollution. Chile's Basic Law on the Environment (the "Basic Law"), enacted in 1994, permits the filing of an "Environmental Repair Action" to compel restoration of environmentally damaged property. However, the Chilean Government maintains no program or administrative procedures to identify and compel restoration of contaminated land.

Legislation/Regulations

Chile has passed numerous environmental regulations during the 1990s, primarily directed at its mining industry, to address air and water pollution problems. Decree Law 185 was enacted in 1991 to establish air quality standards for all fixed sources of air pollution, including smelting operations. More severe air quality standards were enacted in the central and southern parts of Chile to protect large human populations and agricultural areas. Decree 185 contains a provision whereby Chile's National Commission of the Environment has temporary enforcement authority and permitting power over mining facilities to ensure compliance with emission standards.

Additionally, the Basic Law contains a formal system of review for proposed state-owned and privately-owned industrial projects likely to impact the environment. The Basic Law establishes a system of environmental review and regulation that requires the preparation of an environmental impact study for any new industrial projects. The Basic Law provides for a public notice and comment period, and industrial projects must be approved by the appropriate government agency before they may proceed.

Enforcement Agency/Procedures

As previously noted, the Basic Law permits any individual or entity to file an "Environmental Repair Action" to compel the restoration of contaminated land. In such cases, a civil judge in the location where the damaging event occurred has the authority to rule on the case. Despite this enforcement mechanism, the Chilean government does not have an enforcement program or any administrative procedures whereby government authorities actively compel remediation of contaminated land.

The National Commission of the Environment (CONAMA) is the national agency with authority to set national environmental policies and standards while overseeing the environmental regulations implemented by other governmental entities. CONAMA enforces environmental regulations when industrial operations impact more than one region in Chile. When an operation only impacts a single region, regional administrative authorities have enforcement powers. Industrial violations may result in revocation or suspension of permits, or suspension of industrial activities.

Compliance Requirements

Currently, an operator's liability for environmental violations is not clearly defined in the statute.

Introduction

China recently embarked on a series of initiatives to regulate and reduce environmental contamination. China has implemented legislation, central government "five-year plans," and administrative orders in an effort to maintain acceptable pollution levels resulting from nationalized industries and to protect natural resources.

Legislation/Regulations

Currently, environmental regulation in China concentrates on setting industrial waste disposal standards and limits on pollution. In the last twenty years, China has enacted environmental law and policy by: (1) amending its constitution; (2) enacting laws promulgated by the National People's Congress; and (3) adhering to regulations, decisions and orders promulgated by local authorities directly under the control of the central government. Notably, the judicial decisions of courts in China do not constitute legal precedent and are not considered a source of law. The Central government has yet to adopt any laws, proclamations or plans providing for the identification and remediation of contaminated sites. Therefore, there currently is no statutory basis to compel private parties to clean up contaminated land or to hold private parties liable for remediation costs.

The 1989 Environmental Protection Law (the "1989 Law") of China establishes the framework for the basic regulatory structure of environmental law in China. Under the 1989 Law, businesses and other sources of pollution must, at a minimum: (1) incorporate environmental protection into their budgets and business plans; (2) establish responsibility and accountability systems for environmental protection within their enterprises; (3) take effective measures to control and eliminate pollution; and (4) report the discharge of pollutants to a central governmental authority.

Enforcement Agency/Procedures

The 1989 Law also delineates the functions and responsibilities of the central and local governments and establishes the environmental administration system for China. The central government has established environmental protection agencies, including the National Environmental Protection Agency, that supervise environmental protection, promulgate national standards, and establish environmental monitoring systems. The 1989 Law further provides a private right of action for citizens to inform the government of violations or to sue for enforcement of the substantive provisions of the 1989 Law.

Compliance Requirements

Central and local authorities have the power to assess fines and impose criminal liability for non-compliance with environmental regulations. Local governments have promulgated regulations for the purpose of implementing the central government's environmental policies. These regulations typically address such areas as pollution control, new construction requirements, special requirements in specific "economic zones," and regulations regarding air and water pollution. Local governments also have the power to impose deadlines for enterprises to eliminate or control pollution.

Introduction

In 1976, Denmark's Environmental Ministry enacted the Waste Notice Act, designed to regulate the disposal of all hazardous materials having the potential to cause soil or water pollution. In 1983, Denmark enacted the Waste Deposits Act, amended in 1990, which initiated a program to identify and clean up sites that had been contaminated prior to 1976. Denmark recently passed legislation that recognizes strict liability for environmental damage on companies in certain identified industries.

Legislation/Regulations

The Waste Deposits Act sets forth a detailed framework for prioritizing sites, establishing priorities for cleanup, and assigning financial and administrative responsibilities at various levels of government. The primary focus under Denmark's Act is to remediate and protect groundwater resources.

Remediation of contaminated sites under the Act is almost exclusively administered and financed by the government. While the recovery of remediation costs from polluters is not precluded, the Act primarily provides for government financed and administered remediation. Additionally, in a series of court decisions where the government has sought to recover remediation costs from polluters, the definition of a "legally responsible polluter" has been cast very narrowly.

Under Denmark's civil system, any party responsible for polluting land or water may be held liable for damages caused thereby under negligence principles. In fact, it is not uncommon for regulatory authorities to seek reimbursement for remediation costs in subsequent civil actions against landowners or other responsible parties. An innocent purchaser of contaminated land generally will not be held liable for contamination if the purchaser notifies authorities of the contamination upon discovery.

The Compensation for Environmental Damage Act, 225/94, allows strict liability for environmental damage to be imposed on certain identified industries. The Act covers industries engaged in: steel, wood and plastic manufacturing or processing; chemical and glue manufacturing; printing operations; and the generation of power and heat, among others. Entities engaged in these activities that cause damage to the environment may be held strictly liable by private individuals who have suffered damage or by governmental authorities.

Enforcement Agency/Procedures

The Danish national government appropriates funds annually to pay for the investigation, registration and remediation of contaminated sites. At the federal level, environmental matters are regulated by the Department of the Environment. The Department is comprised of the Environmental Protection Agency, the National Environmental Research Institute, the National Forest and Nature Agency, and the National Geological Survey. Local authorities are authorized to design and conduct remediation plans using national funds. County governments in Denmark typically conduct investigation activities and maintain a contaminated land registration system. They also provide oversight to municipal governments who have the responsibility of remediating sites.

Hazardous waste cleanup activities in Denmark are predominantly public works programs, although voluntary private

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Enforcement Agency/Procedures

cleanups do occur. These privately conducted cleanups result primarily from incentives to clean up polluted land that will, after remediation, appreciate to a value greater than the cost of the cleanup. These projects are often orchestrated through local governments' power to grant or withhold building permits or requests for changes in land use.

Compliance Requirements

Generally, cleanup standards under the Act require that land be returned to a state of "multi-functionality." However, remediation standards in Denmark vary, depending on the type of land contaminated and the potential effects of contamination on groundwater. Remediation standards are most stringent when there is significant concern that a particular contaminated site will effect groundwater resources. In the case of privately financed cleanups, negotiations typically take place between the government and a private remediator over the extent of remediation and whether all areas of a given site must be cleaned to the same standard (i.e., whether, for example, soil under parking lots or green areas needs to be as clean as soil under buildings).

Introduction

England recently enacted the Environmental Act of 1995, a comprehensive environmental regulatory statute which will govern the identification and remediation of contaminated land. In late 1996, draft guidelines for implementation of the Act were released by the Secretary of State for the Environment. While these guidelines are not final, they will have an important impact on liability and remediation requirements.

Legislation/Regulations

Liability for "contaminated land" is placed on the "Appropriate Person." The definition of "Appropriate Person" is expansive, but is prioritized by accountability. The first level of priority is to identify the person or persons who caused or knowingly permitted the release of pollutants causing contamination (known as "Class A Persons"). In cases where no such person is found after a reasonable inquiry, the current owner/occupier of the land will be considered the "Appropriate Person" for purposes of liability for cleanup (known as "Class B Persons"). England's Environmental Agency must make a reasonable inquiry to find "Class A Persons" before assessing liability for cleanup on a "Class B Person." When there are two or more persons that are members of the "liability group," then liability is apportioned among them in accordance with relevant provisions of the draft guidelines. A lender can be deemed an "Appropriate Person" where it advances sums with knowledge of contamination or where the lender has contributed to the damage to land. Where the polluter cannot be located, or is insolvent, the public sector may be deemed to be the "Appropriate Person" responsible for the remediation of the hazardous condition.

"Contaminated land" is defined under the Act as any land that appears to local authorities to be in a condition such that: (1) significant harm is being caused; (2) there is a significant possibility of such harm being caused; or (3) pollution of controlled waters (ground and surface waters) is being, or is likely to be, caused. "Significant Harm," as set forth in the Act, means harm to the health of living organisms and their ecological systems and, in the case of man, harm to his property. The recently released draft guidelines under the Act do not provide any examples of what constitutes "Significant Harm." It is expected that further guidelines will be issued progressively by the Environmental Agency to refine the definition of "Significant Harm" and what constitutes contaminated land under the Act.

A person who previously owned or occupied contaminated land, who can demonstrate that he or she did not cause or knowingly permit contaminants to be present, or who can show that he or she made full disclosure of contamination problems to a purchaser prior to sale, would not be responsible for conducting remediation. However, an entity that purchases land from another with full disclosure of environmental contamination will be liable for remediation. Additionally, in cases of gross contamination, or where the polluter is unknown, or where the current owner has insufficient resources to pay for cleanup, public funds may be used to effectuate cleanup as a matter of last resort.

Enforcement Agency/Procedures

The Act's provisions will be administered by a new regulatory body entitled the "Environmental Agency." The Agency will have a general supervisory role over investigation and remediation of contaminated land and will provide guidelines under the Act. Monitoring and enforcement under the Act will also be carried out by local authorities commonly known as District Councils. District Councils have been charged with the responsibility of developing strategies for inspecting their jurisdictions for contaminated land.

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Enforcement Agency/Procedures

Where pollution levels exceed published guidelines, local authorities will notify a landowner or occupier three months prior to issuing a Notice of Remediation. If, during this time, the Appropriate Person begins the cleanup, or sets forth a proposed cleanup program, the Notice of Remediation will not be served. If the authorities are satisfied that the proposed work is adequate, they may serve a "remediation declaration," which records that the authority is satisfied with the remediation plan. The authorities are thereafter precluded from serving a Notice of Remediation as long as the state of affairs, including the existing use of the land, remains the same.

If the cleanup of a site is considered too costly with respect to the extent of contamination, a Notice of Remediation will not be served. In the event a Notice of Remediation is served, individuals or entities who fail to comply with the Notice without a reasonable excuse are subject to fines of up to £20,000, in addition to a fine of up to £2,000 per day during periods of non-compliance. Where the enforcing authority cleans up the land itself, it may recover the costs of cleanup from an Appropriate Person in cases where such recovery would not create a hardship.

Compliance Requirements

The extent of remediation requirements under the Act have yet to be precisely set forth by the Agency. Remediation requirements under the Act will most likely include site investigations, cleanup operations, and subsequent monitoring.

It is anticipated that the Agency will provide standards governing unacceptable levels of pollutants which will ultimately determine whether a suspected polluter will be served with a Notice of Remediation. Most likely, the expected subsequent use of contaminated land will be a function of what type of remediation will be required of Appropriate Persons under the Act.

Introduction

France has enacted legislation providing for private and public remediation of contaminated land through Law 76/663. The Law was amended in 1994 in conjunction with the publication of an inventory of approximately 670 polluted sites by the French government. The inventory includes both operating and abandoned properties and will be progressively updated through a policy of systematic identification of additional polluted sites. Thereafter, appropriate remediation will be ordered or, if necessary, conducted by the government with public funds.

Legislation/Regulations

The Law regulates the implementation, operation and closure of certain "classified installations" which may cause harm to the environment or pose a threat to public health and safety. The Law requires Installations to obtain licenses which govern the operation of facilities, prohibit the sale of regulated installations without disclosure of environmental issues such as contamination on land, and allow authorities to order remediation of contamination. The Law requires that the responsible party bear the cost of cleanup. For those sites where no responsible party can be identified, or where a responsible party refuses to cooperate or is insolvent, the legislation provides that cleanup may be funded by the government. The government may pursue a subsequent cost recovery action against a polluter or an owner of property in appropriate circumstances.

The government's published inventory of polluted sites reports standard information on each identified site, including: (1) a brief description of the site and the responsible parties; (2) the nature of the pollution; and (3) the current status of the site (i.e., under investigation, restricted in use, or undergoing treatment).

Enforcement Agency/Procedures

Risk assessments and site investigations are progressively carried out at the local level under the control of the Prefecture or by regional authorities. The goal of the recent amendment to the legislation is to develop and expand upon the existing list of occupied and abandoned contaminated sites in order to prioritize site cleanups. When remediation activities are funded by the government, they are managed through France's Environmental Agency ("ADEME"). ADEME is required to obtain the agreement of France's Ministry of Environment prior to commencing remedial action.

Compliance Requirements

Uniform remediation standards have not been defined under France's legislation. Historically, remediation standards have been set on a case-by-case basis.

Introduction

Germany is known to have one of the more stringent and developed systems of environmental regulation governing hazardous waste disposal and remediation in the European Community. Enacted in January 1991, Germany's Environmental Liability Law provides for strict liability for any property damage or bodily injury caused by the pollution of the air, soil or water. The Law also provides a private right of action for injury or death caused by exposure to contaminants.

Legislation/Regulations

The Law applies to contamination emanating from "Installations" which are defined as "stationary facilities such as plants and warehouses." The Law excludes liability if the Installation has been operating according to regular standards and if the impairment of the property is insignificant. There is no liability under the Law to the extent that damages are caused by unexpected or uncontrollable natural events.

Germany subscribes to the "polluter pays" principle. Generally, if the Installation suspected of causing pollution is capable of causing the damages alleged, the Law presumes that the damage has been caused by that Installation. This presumption is rebuttable and would not apply if several Installations have the capability to cause the same damage.

Local authorities have discretion under the Law to enforce an action for cleanup against the original polluter or any other responsible party. Where several parties are potentially liable, the authorities have discretion in deciding against whom to proceed.

If no responsible party can be found with sufficient funds to undertake cleanup, public funds are used for remediation. Public funds available for cleanup in these situations are limited, and this fact will often have an impact on the type of remediation taken. The issue of availability of public funds for remediation projects has been further complicated by extensive contamination problems in former East Germany. The government does have the right to seek cost recovery from any subsequently discovered responsible parties. To the contrary, there are no provisions under the Law allowing the recipient of a cleanup order to seek contribution from other polluters for remediation costs. However, it is possible that state law may allow for such relief.

The Law allows individuals to seek recovery from a responsible party for property damage or bodily injury resulting from exposure to contamination. With respect to claims for bodily injury, the responsible party may be liable for the cost of treatment in addition to economic losses and other consequential damages. Liability for property damage and bodily injury is capped under the Act at 160 million DM per party, or a total of 320 million DM, provided that the damages have been caused by one single event.

Enforcement Agency/Procedures

Federal environmental regulations are administered by the Federal Ministry of the Environment. Individual states are responsible for overseeing enforcement and compliance with the Law, concentrating primarily on existing installations rather than old or abandoned hazardous waste sites.

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Compliance Requirements

The scope of remediation required under the Law is often the subject of negotiation between the polluter and governmental authorities. In determining the extent of remediation, consideration is given to the type of contamination at issue and the anticipated future use of the land.

Introduction

The basic structure of India's legal system is predicated in large part on British colonial statutory law and legal precedent which was adopted at the time of India's independence in 1947. Colonial laws relating to the environment were contained mainly in statutes regulating the use of natural resources, laws protecting private property, and in criminal law. Beginning in the 1980s, the Indian government enacted environmental legislation designed to regulate the emission and disposal of pollutants. India has yet to enact environmental regulations governing the identification and/or remediation of contaminated land.

Legislation/Regulations

Although India does not have any environmental remediation statutes, it has enacted a fairly comprehensive legislative scheme to regulate air and water pollution. Under the Air Prevention and Control of Pollution Act of 1981 and the Water Prevention and Control of Pollution Act of 1994, regulatory bodies, known as Pollution Control Boards, regulate the release of pollutants into the air and water through the issuance of consent orders. Consent orders are contingent upon efficient treatment measures and can be withdrawn if standards are violated.

While Pollution Control Boards have wide authority to inspect industrial plants and implement water and air quality standards, the Boards have limited regional jurisdiction. In fact, regional boards are empowered to enact standards. In response to problems of inconsistent standards resulting from this system, India enacted the Environmental Protection Act of 1986, which authorized its central government to set uniform standards for emissions for specifically identified industries. The 1986 Act also established rules governing the handling and disposal of hazardous substances. These national standards have improved environmental protection in India.

Enforcement Agency/Procedures

India has a unique system of judicial activism in the area of environmental regulation. This activism is predicated upon a judicial interpretation of India's Constitution which entitles citizens to a "fundamental right to life." This "right to life" has been interpreted by courts to include a "right to a clean environment." Therefore, at least in theory, any citizen can directly petition a court for redress on the grounds that his or her constitutional rights have been infringed by a polluting activity. India's pro-active judiciary has encouraged much public interest litigation in environmental matters.

Compliance Requirements

National standards have been established in certain areas under the Environmental Protection Act of 1986. Judicial rulings also play a large role in establishing permissible conduct and permissible use of natural resources in India.

Introduction

Italy's environmental regulations focus primarily on controlling the discharge of toxic substances into air and water. Although Italy does not have any laws specifically intended to govern the remediation of contaminated land, its general codified law and court interpretations often provide the basis for the government to compel a polluter or landowner to clean up a contaminated site. Italian law authorizes individuals to bring suit against adjacent landowners who have contaminated their property.

Legislation/Regulations

Law 349/1986 allows the state to pursue damages against any person who has damaged, altered or impaired the environment through willful or negligent behavior in breach of environmental regulations. Liability for such misconduct is limited to the polluter, whether a private person, corporation or public officer. Other provisions of the law allow the state to force a polluter, who has caused environmental contamination, to clean up surface waters, soil and groundwater. If a polluter is insolvent or cannot be found, remediation orders may be enforced against a successor company in accordance with ordinary civil rules. Currently, the Italian government has not appropriated a compensation fund to finance cleanups.

Criminal sanctions are also provided for under a number of environmental regulations. Currently, statutes provide for imprisonment up to three years and fines in excess of $30 million lire. Governmental authorities must institute legal proceedings to have criminal sanctions imposed.

Enforcement Agency/Procedures

Law 349/1986 entrusts the administration of environmental law and policy to the Ministry of the Environment, while enforcement of environmental laws is normally carried out at the provincial level. Additionally, municipalities exercise authority over environmental matters through zoning policies and environmental impact assessments. Municipalities have broad discretionary powers over public health and safety, providing the basis to regulate and, if necessary, close plants causing environmental contamination.

Compliance Requirements

Italian legislation does not provide for absolute standards of cleanup. Most frequently, cleanup standards are established by regional authorities, taking into account the present and anticipated future use of a site.

Introduction

Japan is a heavily populated industrial country with roughly 94 million citizens. In response to mounting environmental concerns, Japan implemented the Basic Law for Environmental Pollution Control ("Basic Law") in 1967. The Basic Law has evolved since its enactment and provides the foundation for Japanese environmental regulatory guidelines and principles. In 1993, Japan also enacted the Environmental Protection Act to further delineate national environmental policies. These policies have been implemented through many statutes addressing discrete environmental issues, several of which are discussed below. Japan now maintains a fairly comprehensive scheme of air, water and toxic waste emission control standards.

Legislation/Regulations

Japan's environmental regulations concentrate on minimizing toxic emissions and regulating the disposal of pollutants. Japan does not have any laws providing for the identification and remediation of contaminated land. Therefore, there is currently no basis for holding private parties liable for the cost of remediating contaminated land.

The Basic Law sets forth Japan's national policies regarding environmental pollution and provides a foundation for Japanese environmental control policies, administrative procedures and regulatory guidelines. In 1970, the Basic Law was amended to include numerous pollution control laws governing standards relating to "public pollution." "Public Pollution" is defined in the Basic Law to include activities that damage public health and safety, including air, water and soil pollution. Japanese regulations encourage business owners to voluntarily enter into pollution control agreements with residents, as well as local governments, to achieve emission levels at or lower than levels prescribed by law. Businesses are also required to submit annual reports to local governments setting forth pollution prevention plans.

Under the Air Pollution Control Law of 1968 and the Water Pollution Prevention Law of 1970, emission and discharge restrictions were promulgated based on public health standards. The Law authorizes local governments to shut down offending facilities until prescribed standards are met. Facility operators discharging pollutants identified as hazardous may be found criminally liable for failure to submit the proper notification to local governments.

The Waste Disposal and Public Cleansing Law ("Waste Disposal Law") was enacted to address injury to public health and safety caused by the disposal of toxic chemicals and waste. Under the Waste Disposal Law, manufacturers must report to the government prior to importing, manufacturing, or using certain chemicals in their operations.

Enforcement Agency/Procedures

In 1971, as part of its amendment of the Basic Law, the Japanese government created the Environmental Agency. The Environmental Agency oversees the administration and enforcement of federal pollution standards. Additionally, in accordance with the traditional Japanese governmental structure and Japanese constitutional law, local units of government, Prefecturates, as well as cities and municipalities, are empowered to enact local environmental ordinances that are not inconsistent with national law. Today, much of Japanese environmental regulation is enacted and implemented at the local government level.

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Enforcement Agency/Procedures

National and local Japanese environmental laws often provide for imprisonment and other criminal punishment for environmental misconduct. Many environmental statutes, like the 1971 Law For The Punishment For Environmental Pollution Crimes, was intended to promote public health standards. These statutes impose criminal and civil penalties against industries for endangering public health and safety through the discharge of hazardous substances. Potential penalties include jail sentences, forced labor, and fines not exceeding 3 million Yen.

Japan does recognize lawsuits to redress injuries suffered from environmental pollution and contamination. In 1973, Japan enacted the Law Concerning Compensation For Health Damages Caused By Environmental Pollution, which allows governmental authorities to compensate victims of pollution for medical costs and lost income. The law, in turn, allows the government to recover sums expended from the offending parties.

Japan employs extensive administrative procedures to settle disputes relating to acts of pollution. Under the 1970 Law For Settlement Of Pollution Disputes, administrative bodies, including the Environmental Dispute Coordination Commission, decide pollution grievances. Other alternative dispute resolution mechanisms employed to resolve environmental disputes include mediation and arbitration.

Compliance Requirements

Japan's Basic Law establishes environmental quality standards. These standards include both ambient standards for local regions and national emission standards. The use and disposal of toxic substances is regulated through the Waste Disposal Law and the Toxic Substances Control Act.

Introduction

Luxembourg is a constitutional monarchy that operates under a parliamentary system. Environmental regulations in Luxembourg tend to concentrate on regulating air and water pollution. Recent legislation has provided the government with the authority to order polluters to clean up contaminated land.

Legislation/Regulations

The Law of June 21, 1996 regulates air pollution in Luxembourg. This statute establishes measures that must be taken by companies to prevent or reduce air pollution. Examples include emission controls for municipal waste incinerators and combustion plants. The statute has a licensing system whereby governmental authorities may conduct plant inspections, set maximum permissible emission levels, and require the utilization of pollution control equipment to prevent or reduce pollution emissions.

The Law of May 16, 1989 prohibits the discharge of any substance into a water course which could have the effect of decreasing the water's purity. Civil and criminal penalties are available under the statute.

Luxembourg's legislation empowers governmental authorities to issue remediation orders and to compel polluters to clean up contaminated land. However, only polluters, not innocent landowners, may be held liable for remediation costs. If a polluter cannot be found or is insolvent, the legislation does not authorize the use of public funds for remediation activities.

Enforcement Agency/Procedures

Environmental violations in Luxembourg are typically classified as criminal offenses. Therefore, environmental enforcement is usually based on criminal liability.

The Ministry of the Environment is the agency which enforces Luxembourg's administrative environmental regulations. The Ministry has the power to inspect plants to ensure compliance with licenses. Violations of the terms of a license may result in revocation of the license, or suspension of industrial activities, until compliance is obtained.

Compliance Requirements

Remediation standards are set at the discretion of the Ministry or by municipalities on a case-by-case basis.

Introduction

The General Ecology Law, passed in 1988, provides the framework for Mexico's environmental regulatory program. The statute addresses air, water, and land pollution, and the disposal of toxic substances. The General Ecology Law and supporting regulations govern the activities of all industrial operations in Mexico, including local and foreign-owned manufacturing facilities. While most major pollution control concerns are addressed, at least three main areas — cleanup of abandoned hazardous waste sites, restrictions on disposal of hazardous waste, and regulation of underground storage tanks — are not covered by Mexico's environmental regulations.

Legislation/Regulations

Although cleanup of abandoned hazardous waste sites is not currently provided for under Mexican law, Mexico's Environmental Enforcement Agency has established a program to solicit voluntary contributions from businesses for cleanup of hazardous waste on active industrial sites. Through the program, the Mexican government identifies contaminated sites and oversees the cleanup efforts of responsible parties. Owners and/or operators of sites are responsible for implementing and finalizing the cleanup.

Mexico's General Ecology Law imposes a "cradle-to-grave" approach in regulating hazardous waste. The statute is modeled after the United States' Resource Conservation and Recovery Act and uses a combination of characteristics such as ignitability, corrosivity, reactivity and toxicity to define what constitutes hazardous waste. The statute imposes specific regulatory requirements on landfills. The statute also restricts waste water discharges under a federal/state permit program. Discharges are regulated by effluent limitations, water quality standards, and impact studies on waterways. Air pollution control standards under the statute require the achievement of ambient air quality standards for specific pollutants through the use of a permit program.

In 1992, Mexico passed a federal law on metrology and standardization, La Ley Federal Sobre Metrologia Y Normalizacione, which provides for public participation in the development and implementation of environmental standards. This legislation has been successful in creating an opportunity for private industrial groups to work with the government to develop environmental standards with which industries can comply.

Enforcement Agency/Procedures

The General Ecology Law empowers the Secretary of Urban Development and Ecology (Secretaria de Desarrollo Urbano Y Ecologia or "SEDUE") to formulate and enforce policies regarding environmental enactments. SEDUE was reorganized in 1992 and, in 1994, renamed to SEMAIMAP. SEMAIMAP's environmental functions are carried out by two agencies. The National Institute of Ecology is responsible for developing regulations, ruling on environmental impact statements, granting permits and licenses, and establishing state environmental programs. The other agency, the Federal Attorney General for Environmental Protection, develops environmental laws, regulations and standards, conducts audits and evaluations, determines sanctions, and educates the public on environmental issues.

Depending on the nature of the violation, the General Ecology Law authorizes the imposition of administrative and/or criminal penalties. Administrative sanctions can include fines of up to US$100,000 and temporary or permanent closure of facilities. Administrative sanctions are determined according to the gravity of the offense, the economic condition of the party involved, and the existence of any previous violations. Criminal sanctions, although rare, may involve imprisonment for up to six years.

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Compliance Requirements

Mexico does not have a sufficient amount of funding, resources, or facilities to ensure full compliance with its environmental laws. Nonetheless, Mexico has demonstrated a continuous commitment to improve and protect its environment. In addition, in June 1994, the World Bank approved an initiative to allow $1.8 billion in loans to Mexico over a three year period to fund environmental projects.

NAFTA — The Environmental Side Agreement

Enforcement of environmental regulations was the major impetus for the creation and enactment of a supplemental environmental agreement to NAFTA, the North American Free Trade Agreement. The NAFTA environmental side agreement requires each member country (Mexico, Canada, and United States) to effectively enforce compliance with its own environmental laws and regulations through appropriate governmental actions. This side agreement is further described below.

Purpose of the Side Agreement

The side agreement's primary objective is to enhance compliance with, and enforcement of, environmental laws and regulations. The United States, Canada and Mexico, as parties to the side agreement, each have the right to set their own level of domestic environmental protection, but the side agreement allows a country to protest another country's failure to effectively enforce its own environmental law.

The side agreement provides for fines in instances where there has been a "persistent pattern" of failure by a country to effectively enforce its own environmental standards. However, the side agreement expressly states that a country's failure to enforce its environmental laws will not be deemed to be a violation of the agreement if the country's actions reflect a reasonable exercise of discretion. This discretionary authority provides an expansive defense for a country that has been charged with a persistent failure to enforce its own environmental regulations.

Enforcing Body/ Enforcing Procedures

Investigation and enforcement under the side agreement is performed by the Trilateral Commission for Environmental Cooperation ("CEC"). The CEC has the authority to publicly report on improper environmental practices of a participating nation, which is intended to pressure an offending nation to take corrective action. The side agreement also contains an extensive dispute resolution mechanism to provide for voluntary resolutions between nations. Alternatively, the CEC has the power to convene an arbitration panel consisting of five members, two from each party-nation, and a chairperson to be chosen by agreement of the parties or by lot. The panel is responsible for hearing evidence, issuing findings of fact, determining whether there has been a "persistent pattern of failure" to enforce regulations, and giving remedial recommendations. If the panel finds that a violation has occurred, the parties are given an opportunity to arrive at a mutually satisfactory remedial action plan. If one is not chosen, the panel may institute its remedial recommendations. In either case, the panel may impose a monetary fine not exceeding 0.7% of the most recent annual total amount of trade of goods between the parties. All fines assessed against a country must be spent, at the direction of the CEC, towards improving that nation's environmental enforcement. Therefore, a monetary fine under the side agreement will never really leave the territory of the defendant nation.

Introduction

The Netherlands has one of the oldest hazardous waste cleanup programs in Europe. Environmental protection legislation originated with the Soil Protection Act of 1975, a prospective statute that regulates the release of toxic substances into the environment. The Netherlands first required the remediation of contaminated land in 1982 with the enactment of the Interim Soil Cleanup Act. These remediation requirements were subsequently incorporated in the Soil Protection Act through amendments in 1986 and 1994.

Legislation/Regulations

Since the inception of the soil cleanup program in the Netherlands, the national government has appropriated funds for remediation from general tax revenues. In the face of an increased number of contaminated sites and extensive remediation costs, the government more recently has attempted to force private industry to bear the costs of remediation through court proceedings. The government's effort in this regard has been largely unsuccessful, and this has spurned proposed amendments to the environmental cleanup statutes.

One provision, in the most recently enacted amendments to the Soil Protection Act, allows provincial governments to issue administrative orders requiring current landowners and past polluters to perform site investigations and take remedial actions. Actual cleanup orders may not be issued until a determination is made that the site is "seriously contaminated." Cleanup orders may not be issued against "innocent landowners," and parties who are responsible for less than fifty percent of the waste causing contamination must be given an opportunity to pay a proportionate share of cleanup costs before an order is issued.

Privately financed cleanups are at times effectuated through negotiations between key industries and the Environmental Ministry. These negotiations allow businesses to avoid expensive legal actions and obtain flexibility in cleanup schedules and remediation techniques. Voluntary private cleanups can also be effectuated through local governments' pre-existing power to issue building permits. This process has been particularly successful in situations where a property's value exceeds anticipated remediation costs.

Enforcement Agency/Procedures

Provincial or state governments, in conjunction with the Environmental Ministry, are responsible for the administration of cleanup programs. Municipalities are responsible for identification of polluted sites and for a proportional share of public funds expended in their jurisdiction for cleanup activities.

Compliance Requirements

Remediation standards in the Netherlands require that contaminated land be cleaned to a state of "multifunctionality." In practice, local government officials have the discretion to specify the remediation procedures and final cleanup standards actually imposed.

Introduction

Singapore has enacted various environmental laws regulating the emission and disposal of toxic substances into the air and water. Singapore's environmental regulations are primarily directed at controlling the emission and disposal of pollutants.

Legislation/Regulations

Singapore's Water Pollution Control and Drainage Act regulates the discharge of pollutants into inland waters. Under the Act, any entity discharging substances into water must obtain a permit from the government. Proposals for the construction of new facilities that will generate hazardous waste also must be approved by the government prior to construction and operation. The government maintains an on-going right to inspect facilities to ensure that activities comport with permit requirements.

The Act provides that any individual who discharges any toxic substances into any inland water so as to give rise to an environmental hazard shall be guilty of a criminal offense punishable by fine or imprisonment for up to six months. Criminal penalties are more severe for second or repeat offenders. Additionally, the government has the power to close facilities temporarily or permanently for failing to comply with regulations governing the discharge of pollutants.

Singapore's Clean Air Act gives the government broad powers to inspect and regulate facilities that discharge pollutants into the air. The government may order the installation of pollution prevention devices into facilities, or require that operations be altered to meet prescribed emission limits. Rather than issuing permits establishing acceptable levels of emissions, Singapore's Clean Air Act concentrates on requiring the use of certain pollution control devices and other preventative measures that have been found to be effective in reducing air pollution. Under the Act, violations of governmental orders are punishable by criminal fines or imprisonment.

The Environmental Public Health Act regulates the generation, use, and disposal of industrial waste. Industrial waste must be disposed in an authorized public disposal facility or licensed private facility. The government has the power to require any entity to clean up waste that has been improperly disposed. As with Singapore's other environmental laws, violations are punishable through criminal fines and imprisonment.

Enforcement Agency/Procedures

In Singapore, the Ministry of Environment has the primary responsibility of enforcing environmental regulations, while the Ministry of Labor ensures that industry is apprised of its obligations under new and existing environmental legislation.

Compliance Requirements

Singapore's environmental emission control laws provide the government with authority to inspect facilities and monitor disposal practices. The government may assess fines or close down facilities that are not in compliance with permits and regulations. Criminal fines and imprisonment are also available to curtail unauthorized activities.

Introduction

Since 1977, South Korea has enacted environmental laws designed to regulate air and water pollution and assess the environmental impact of new industrial facilities. Enforcement of South Korea's environmental laws has been inconsistent due to the lack of administrative regulations for implementing the legislation. South Korea does not have any laws requiring remediation of contaminated land.

Legislation/Regulations

South Korea enacted the Environmental Preservation Act in 1977 to regulate the emission of air and water pollutants. Under the Act, any entity that discharges material into the air, water or soil that is harmful or likely to become harmful to the public health or environment must obtain a license from the government. Emission standards typically are more restrictive in densely populated regions where the risk to public health is greater.

Violators of permit standards may be fined or, in extreme cases, shut down. Fines are deposited into the Environmental Pollution Prevention Fund which is used to pay for environmental protection efforts. The Environmental Protection Act also imposes "concurrent punishment" not only on the offending entity, but also upon company representatives that cause violations to occur. Further, the Act establishes a strict liability standard upon generators of hazardous waste for damages resulting from their activities, and imposes joint and several liability in cases of personal injury.

The Water Environmental Preservation Act of 1991 regulates the emission of water pollutants in the same manner that the Environmental Protection Act regulates air pollution. Under the Toxic Chemical Control Act of 1991, companies must undergo a risk assessment by government authorities before they are authorized to manufacture or import certain identified chemicals. The government is empowered to prohibit the manufacture, import or sale of any chemical posing a serious hazard to human health or the environment.

Enforcement Agency/Procedure

In 1980, South Korea formed the Environmental Agency to oversee environmental matters within the country. In 1990, the Agency was replaced by the Ministry of the Environment. The Ministry is now charged with the responsibility of enforcing environmental regulations in South Korea.

Compliance Requirements

Entities that emit pollutants into the air or water in South Korea are required to obtain licenses. The license itself establishes limits on harmful emissions. Proposals for the construction of new facilities must undergo a risk assessment by the Ministry of the Environment before they can be built. The Ministry is empowered to reject plans for the development of new facilities that do not meet environmental regulatory standards.

Introduction

Spain's governmental structure consists of a federal government, 17 autonomous regions and 50 local provinces. Each level of Spain's government has enacted environmental legislation. Under this system, governmental authorities at the various levels have the power to compel polluters to remediate contaminated land.

Legislation/Regulations

Article 45 of the Spanish Constitution establishes the framework for Spain's environmental law. The Constitution provides citizens with the right to enjoy an environment adequate for human development, while also imposing a duty upon citizens to preserve the environment. This constitutional provision has provided the basis for legislation allowing administrative authorities to compel polluters to repair environmental damage caused by their activities.

Law 20/1986, the Basic Law On Toxic And Hazardous Waste, regulates the emission and generation of toxic substances. Under the law, regional authorities must approve the development of facilities that will generate toxic substances. The Basic Law also allows authorities to order polluters to clean up contaminated land without limitation to cost. Benefits to be derived from the cleanup, in relation to the value of the site, are considered by authorities when developing remediation plans.

Additional environmental laws in Spain, such as Law 29/1985 on Water, also set emission standards and allow governmental authorities to order the cleanup of environmental contamination. Again, liability is limited to polluters.

Enforcement Agency/Procedures

Generally, environmental enforcement is carried out at the regional and provincial level. In fact, provinces have a constitutional right to exercise power regarding the management and enforcement of environmental protection. Therefore, investigation, compliance, and administrative enforcement of cleanup orders are typically performed by local authorities.

Article 347 of the Spanish Criminal Code provides that violators of environmental regulations who cause contamination that creates a serious danger to human health or the environment may be imprisoned for one to six months and fined 175,000 to 5 million pesetas. If contaminants have been discharged without appropriate authorization or administrative approval, or when the terms of an authorization are disobeyed, violators may be imprisoned for a period up to six years. This increased prison term also applies if the wrongful activity creates a risk of irreversible environmental damage. Notably, Spanish law does not allow criminal penalties to be assessed in combination with administrative liability.

Compliance Requirements

In practice, cleanup standards differ depending upon the current or proposed use of the contaminated site. At present, there are no statutory remediation standards.

Introduction

Switzerland's Constitution allocates power between the Federation and its members, the 26 Cantons. Powers that are not specifically enumerated in the federal constitution are reserved for the Cantons. Switzerland maintains a comprehensive scheme of federal environmental laws, administered through the Cantons, that regulate the emission of toxic substances and specifically authorize Cantons to require polluters to remediate contaminated land.

Legislation/Regulations

The Environmental Protection Act of 1983 regulates air pollution, soil pollution, noise abatement, and hazardous waste. The statute establishes acceptable emission standards for identified pollutants and regulates the discharge of pollutants through the use of "consents." Strict liability is the standard, and typically a polluter who has contaminated land will be ordered to undertake remediation activities at its own cost through an administrative order or injunction. If the polluter does not take the necessary action, the Cantonal authority will carry out the cleanup and reclaim the costs from the polluter.

Current legislative proposals extend strict liability to private actions when damages are sought for contamination to land caused by another.

Enforcement Agency/Procedures

Environmental regulations in Switzerland are primarily enforced at the state level. Administrative bodies, known as "Cantonal Administrative Offices," are the primary authorities that enforce federal legislation. Although Cantons have the power to enact procedural regulations to enforce federal legislation, a federal agency, known as the OFEFP, ensures that federal laws are consistently enforced among the different Cantons.

In addition to administrative enforcement, criminal penalties are available for violations of Swiss environmental laws. Imprisonment and criminal fines may be imposed for violations of environmental regulations that cause environmental damage.

Compliance Requirements

Cantonal authorities evaluate the proposed end use for contaminated sites when setting remediation standards. Cantons regularly negotiate cleanup standards with polluters when developing remediation plans. As a result, actual remediation standards vary widely on a case-by-case basis.

Introduction

Taiwan first established environmental policies in the early 1970s when the government enacted legislation regulating air, water and solid waste pollution. Active enforcement of Taiwan's pollution laws began to take effect in 1987, when Taiwan's Executive Yuan established the country's first Environmental Protection Administration ("EPA"). In recent years, Taiwan has dedicated increasing funds for enforcement of its environmental regulations as part of a US$330 billion infrastructure improvement plan known as the 6-Year National Development Plan.

Taiwan has a fairly broad range of activity-specific environmental laws regulating air, water, soil, solid waste and toxic chemical pollution. Taiwan's Legislative Yuan introduced the Soil Pollution Control Bill ("SPC") in 1991, which was based on the U.S. Superfund/RCRA model, but the statute had not been formally enacted by the government as of January 1996. The details of that proposed statute and other Taiwanese environmental legislation are discussed below.

Legislation/Regulations

The SPC bill imposes liability on "responsible parties" for soil contamination. The definition of "responsible parties" includes only landowners and polluters. However, neither of these terms is defined in the SPC, so it is unclear whether the term "landowner" includes past landowners.

Liability under the SPC is triggered by: (1) soil contamination sufficient to endanger public health or render agricultural products unsafe, or any other soil contamination as specified by the EPA; or (2) governmental designation of a soil pollution control district. Offenders may be liable under the SPC for government response costs and third-party damages. Government response costs include expenses associated with the development of a remediation plan and the performance of remediation work. The costs of investigating the extent of contamination are not expressly included as a potential liability of a polluter under the SPC.

Polluters will be held strictly liable for damages resulting from their activities. Liability of a landowner is activated if the landowner fails to exercise a high degree of care in preventing the occurrence, aggravation or continuation of soil pollution. The SPC proposes express retroactive application with respect to a landowner's liability for governmental response costs. An innocent purchaser of contaminated land may be entitled to a defense under the SCP for any potential liability for remediation.

In 1995, Taiwan passed legislation in the form of an Environmental Impact Assessment Bill ("Assessment Bill") to address prospective pollution problems. Under the Assessment Bill, the EPA is authorized to veto any major economic development project, with the exception of national defense projects, that may have an adverse environmental impact upon a region of the country. The Assessment Bill is intended to allow the government to ensure that new and expanded facilities will be adequately designed to prevent harm to the environment.

Enforcement Agency/Procedures

Taiwan's environmental regulations are enforced through its EPA, a cabinet-level agency of the federal government. The EPA oversees environmental policymaking and the administration of laws and regulations concerning pollution control and waste management. Eight official bureaus encompass the EPA, and include the Bureau of Comprehensive

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Enforcement Agency/Procedures

Planning, the Bureau of Air Quality Protection and Noise Control, the Bureau of Water Quality Protection, the Bureau of Solid Waste Control, and the Bureau of Environmental Sanitation and Toxic Substance Control. Environmental agencies also exist at the regional and county level. These agencies in most cases are empowered to enact regulations and rules specific to their regions, provided they are not less stringent than national standards.

Taiwan's environmental laws contain civil, administrative and criminal penalties that include the possibility of fines, and temporary or permanent suspension of business. The maximum administrative fine possible under Taiwan's current environmental law is approximately US$37,000 per day. Criminal penalties are also available and vary from fines to imprisonment.

Civil remedies available for a successful tort claim include: (1) restoration of the damaged property to its original condition; (2) money damages if restoration is extremely costly or not possible; and (3) injunctive relief to halt improper activity and prevent future contamination. Taiwan's EPA is currently backing new legislation to provide for fines for violations of its regulations, and more severe punishments, including imposing criminal fines against companies whose employees or agents violate environmental regulations.

Compliance Requirements

As discussed above, Taiwan's SPC Bill was still pending enactment as of January 1996. Although the proposed legislation provides for "responsible parties," including polluters and landowners, to be held responsible for remediation activities of the government, the SPC Bill has yet to establish what type of remediation standards will be employed under the legislation.

Presumably, if the legislation is ultimately adopted, the national EPA would provide guidelines on cleanup standards that must be employed at contaminated sites. Whether such standards will vary based upon anticipated future use of the land, or whether landowners and polluters will be given an opportunity to negotiate the extent of remediation required by the government, remains an open question at this time.

Introduction

The American Superfund program was enacted as CERCLA — The Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. Sections 9601-9675 (1980). This legislation provides the Environmental Protection Agency ("EPA") with a varied and potent set of tools to effectuate hazardous waste cleanup. As shown below, CERCLA attaches responsibility for cleanup expenses on virtually any landowner, disposal operator, transporter, or generator of hazardous waste associated with a polluted site.

Legislation/Regulations

Under CERCLA, "Potentially Responsible Parties" ("PRPs") for contamination can be owners of the polluted land, operators of disposal facilities on that land, generators of hazardous waste found at the site, and transporters of the waste. Liability under CERCLA is strict, meaning that no negligence or fault need be found — waste generators can be held responsible for cleanup even if they followed all government instructions and deposited their waste in EPA-licensed facilities. Liability under CERCLA is also retroactive. Criminal penalties are available under CERCLA in appropriate cases.

CERCLA liability is "joint and several," meaning that any single responsible party can be held liable for the full costs of a cleanup, regardless of its proportional contribution to the overall contamination. It is common for the EPA to focus its attention on a few "deep pocket" PRPs, regardless of their share of responsibility for contamination at a site, to ensure that no government contribution is required for the cleanup, especially in cases involving defunct or insolvent parties. In such cases, individuals or entities that have been identified as PRPs by the EPA, or that have paid for the cost of cleaning up a contaminated site, may sue other PRPs for contribution.

Enforcement Agency/Procedures

The federal EPA is charged with the responsibility of overseeing environmental remediation under CERCLA. State regulations are enforced through state-run environmental protection agencies. States are free to set higher standards regarding what constitutes "polluted land" and remediation requirements if they choose. Typically, there are four methods that the EPA uses to force a polluter to pay for cleanup expenses. First, the EPA can do the work itself and then sue one or more PRPs in a subsequent cost-recovery action. Second, the EPA can sue targeted PRPs in advance of any cleanup work, obtain a judgment of liability, and then use that judgment either to make the PRPs do the work or to ensure that costs in a subsequent government-financed cleanup will be recovered. Third, the EPA can issue a unilateral administrative order to compel parties to undertake a cleanup action. Should the parties not comply, and the EPA is forced to do the work itself, the potential penalty is treble damages. Finally, the EPA can negotiate a voluntary cleanup agreement with the PRPs with the ability to use other coercive alternatives should negotiations prove unfruitful. This last option, where targeted parties are pushed toward voluntarily cleanup agreements, has been the most prevalent in recent years.

Compliance Requirements

The provisions of CERCLA require cleanup to achieve "background levels" of pollution existing on virgin land. This cleanup standard is frequently not achieved at Superfund sites, and no explicit guidelines exist regarding the appropriateness of reduced standards in such situations. Although current and future land use are not considerations that are explicitly authorized under CERCLA in determining the appropriate remediation standard, these factors do affect the final remedy chosen.

The scope of the remedy to be implemented at a Superfund site is frequently the subject of negotiations between PRPs and the government. PRPs prefer less expensive remedies based on the obvious cost factors involved. The EPA, and/or appropriate state agencies, must approve all remediation proposals submitted on behalf of the PRPs.

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