

Environmental Administration and Legislation

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REVISION

What did you learn last week?



Land Use Plan as a tool for Environmental Protection

- Land use planning is a powerful tool for at least noise abatement, but also for sustaining biodiversity and enhancing environmental health.
- Land use plans are not only maps of which activities are placed on what areas. They also contain - sometimes very specific - controls on construction projects on the area.

The existing legislative framework for extractive industry

- The Directive on environmental impact assessment covers open pit mining and quarries, where the surface of the site exceeds 25 hectares.
- The deposit of waste from the processing of minerals in a pond is covered by Directive 99/31/EC on the landfill of waste
- Minerals processing is covered by the Directive concerning integrated pollution prevention and control (IPPC), which also lays down that pollution must be prevented or reduced through the use of best available techniques (BAT).
- The Community eco-management and audit scheme (EMAS) provides an instrument to integrate environmental concerns in the extractive industry.

The existing legislative framework for extractive industry

- Priority issues for the integration of the environment into the extractive industry include prevention of mining accidents, improvement of the overall environmental performance of the industry and sound management of mining waste.
- The White Paper on environmental liability reinforces the key principles of polluter-pays, prevention and precaution and others to be taken into account by the extractive industry.

Legislative tools: Talvivaara

- Planning Stage: Environmental Impact Assessment
- Construction Stage: Environmental Permit
- Operating Stage: Permit requirements, monitoring and planning, waste management
- Post Operating Stage: Site remediation

Land extraction

- Commission Communication (COM(2003)572): "Towards a thematic strategy on the sustainable use of natural resources" deals also with the extraction of soil
- Finnish Land Extraction Act 555/1981
 - “The aim of this act is to ensure that land extraction supports the goal of sustainable environmental development”
 - Restrictions to extraction of resources
 - Permit requirement
 - Authorities, penalties

Legislation on Soil Pollution Concerns

- Prevention of discharge of harmful substances
- Controlling activities leading to specific risks
- Requirements for remediation of contaminated soil, including threshold values for specific substances

Remediating Contaminated Soil

COM(2006) 231; Proposal for Directive for setting out a framework for soil protection (2004) and amending Directive 2004/35/EC:

“Member States must remediate the polluted sites in line with a national strategy setting out the priorities. Where it is not possible for the person responsible to sustain the cost of remedying the site, the Member State concerned must make provisions for the appropriate financing.”

Legislation Controlling Waste Management



EU waste legislation

- Framework legislation on waste
- Legislation on waste management operations
- Legislation on specific waste streams
- Reporting legislation

GENERAL FRAMEWORK

- **Strategy on the prevention and recycling of waste** (COM(2005)666)
- **Directive on waste** (2008/98/EC)
- **Waste management statistics** (Regulation (EC) No 2150/2002)

Directive on waste (2008/98/EC)

Waste Framework Directive

- Establishes a legal framework for the management and treatment of waste
- Aims at protecting the environment and human health through the prevention of the harmful effects of waste generation and waste management
- Introduces waste hierarchy and recycling & recovery targets
- Includes the "polluter pays principle" and the "extended producer responsibility"

Directive on waste:

Key terminology*

- Waste: any substance or object which the holder discards or intends or is required to discard.
- Waste management: the collection, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites, and including actions taken as a dealer or broker.
- By-product: a result from a production process that was not the primary aim of that process. Unlike waste, it must be able to be used afterwards.

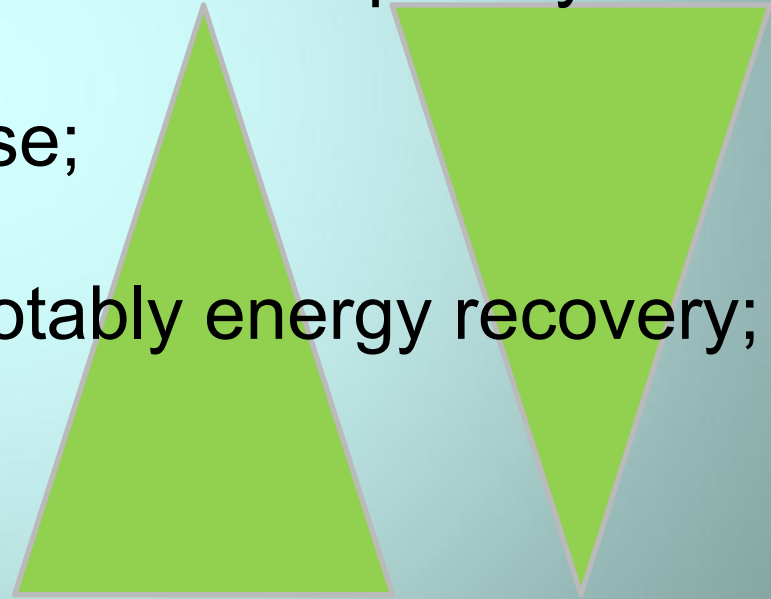
Directive on waste: Key terminology*

- Prevention: measures taken before a substance, material or product has become waste.
- Recovery: any operation the principal result of which is waste serving a useful purpose.
- Recycling: any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes.

Directive on waste: Waste hierarchy*

“In order to better protect the environment, the Member States should take measures for the treatment of their waste in line with the following hierarchy which is listed in order of priority:

1. prevention;
2. preparing for reuse;
3. recycling;
4. other recovery, notably energy recovery;
5. disposal.”



Legislative Instruments for environmental protection*

- Bans
 - Liability and Penalties for breaking bans
- Permits
 - Liability and Penalties for not complying with the permit requirements
- Sanctions
- Economic incentives
 - Taxation
 - Auctions for emission permits

Directive on waste: Waste management

- Any producer or holder of waste must carry out their treatment themselves or else must have treatment carried out by a broker, establishment or undertaking.
- Dangerous waste must be stored and treated in conditions that ensure the protection of health and the environment.

Directive on Waste: Recycling and Recovery Targets

to be achieved by 2020

- household waste (50 %)
- construction and demolition waste (70 %)

The Directive requires that Member States adopt waste management plans and waste prevention programmes.

Directive on waste: Plans and programmes

- The competent authorities must establish management plans to cover the whole territory of the Member State concerned.
 - These plans contain the type, quantity and source of waste, existing collection systems and location criteria.
- Prevention programmes must also be drawn up.
- These programmes are to be communicated by Member States to the European Commission.

Directive on waste: Permits and Registrations

Any establishment or undertaking intending to carry out waste treatment must obtain a permit (IPPC licence) from the competent authorities who determine notably the quantity and type of treated waste, the method used as well as monitoring and control operations.

Legislation on Waste Management Operations and Shipment of Waste



Treatment Operations

- Prevention
- Preparing for reuse
- Recycling
 - Tax incentives, bans, ...
- other recovery, notably energy recovery
 - Incineration
- Disposal
 - Landfill

Incineration of waste

- Directive 2000/76/EC on the incineration of waste (the WI Directive)
- The aim of the WI Directive is to prevent or to reduce as far as possible negative effects on the environment caused by the incineration and co-incineration of waste.
- In particular, it should reduce pollution caused by emissions into the air, soil, surface water and groundwater, and thus lessen the risks which these pose to human health.

Incineration of waste

- The WI Directive sets emission limit values and monitoring requirements for pollutants to air such as dust, nitrogen oxides (NO_x), sulphur dioxide (SO₂), hydrogen chloride (HCl), hydrogen fluoride (HF), heavy metals and dioxins and furans.
- The Directive also sets controls on releases to water resulting from the treatment of the waste gases.
- Most types of waste incineration plants fall within the scope of the WI.

Landfill of waste

- Where waste needs to be landfilled, it must be sent to landfills which comply with the requirements of Directive 1999/31/EC on the landfill of waste.
- The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment, in particular on surface water, groundwater, soil, air, and on human health from the landfilling of waste by introducing stringent technical requirements for waste and landfills.

Landfill of waste

The Landfill Directive applies to all landfills, defined as waste disposal sites for the deposit of waste onto or into land.

Defines the different categories of waste:

- municipal waste,
- hazardous waste,
- non-hazardous waste and
- inert waste (waste which is neither chemically or biologically reactive and will not decompose)

Landfill of waste

- ➔ Landfills are divided into three classes:
- landfills for hazardous waste;
 - landfills for non-hazardous waste;
 - landfills for inert waste.

Landfill of waste

A standard procedure for the acceptance of waste in a landfill is laid down so as to avoid any risks, including:

- waste must be treated before being landfilled;
- hazardous waste within the meaning of the Directive must be assigned to a hazardous waste landfill;
- landfills for non-hazardous waste must be used for municipal waste and for other non-hazardous waste;
- landfill sites for inert waste must be used only for inert waste;
- criteria for the acceptance of waste at each landfill class must be adopted.

Landfill of waste

The following wastes may not be accepted in a landfill:

- liquid waste;
- flammable waste;
- explosive or oxidising waste;
- hospital and other clinical waste which is infectious;
- used tyres, with certain exceptions;
- any other type of waste which does not meet the acceptance criteria laid down in the Directive (Annex II).

Landfill of waste

The Directive sets up a system of operating permits for landfill sites. Applications for permits must contain the following information:

1. the identity of the applicant and, in some cases, of the operator;
2. a description of the types and total quantity of waste to be deposited;
3. the capacity of the disposal site;
4. a description of the site;
5. the proposed methods for pollution prevention and abatement;
6. the proposed operation, monitoring and control plan;
7. the plan for closure and aftercare procedures;
8. the applicant's financial security;
9. an impact assessment study, where required.

Shipments of waste

Regulation 1013/2006 on shipments of waste lays down rules for controlling waste shipments in order to improve environmental protection.

It incorporates the provisions of the Basel Convention and the revision of the OECD's 2001 decision on the control of transboundary movements of wastes destined for recovery operations in EU law.

Shipments of waste

Two control procedures for the shipment of waste:

1. The general information
2. The procedure of prior written notification and consent for certain types of shipments of wastes (e.g. hazardous)

All parties involved must ensure that waste is managed in an **environmentally sound** manner, respecting EU and international rules, throughout the shipment process and when it is recovered or disposed of.

Shipments of waste

The notification procedure requires the **prior written consent** of the competent authorities of the countries concerned by the shipment (country of dispatch, country of transit and country of destination) to be given within 30 days.

The notifier has a duty to take back waste shipments that are found to be illegal or cannot be provided as intended (including the recovery or disposal of waste).

Shipments of waste

- Exports to non-EU countries of waste for **disposal** are prohibited, except to countries that are party to the Basel Convention.
- Exports for recovery of **hazardous waste** are prohibited, except those directed to countries to which the OECD decision applies.
- Imports from non-EU countries of waste for **disposal or recovery** are prohibited (exemptions)

Legislation on Specific Waste Streams



- Hazardous Waste -> *next lectures*
- Waste from Consumer Goods
- Packaging Waste
- Waste from Specific Activities
- Radioactive Waste and Substances

What is missing from this list?

Legislation Controlling Waste from Consumer Goods



Waste from Consumer Goods

- Disposal of polychlorinated biphenyls (PCBs) and polychlorinated terphenyls (PCTs)
- Disposal of spent batteries and accumulators
- End-of-life vehicles
- The reusing, recycling and recovering of motor vehicles
- Waste electrical and electronic equipment

-> read more on these on www.europa.eu

Directive 2006/66/EC

on batteries and accumulators and waste batteries and accumulators (and amending acts).

“The producers have to bear the cost of collecting, treating and recycling industrial, automotive and portable batteries and accumulators, as well as the costs of campaigns to inform the public of these arrangements.

Small producers may be exempted from this obligation if this does not impede the proper functioning of the collection and recycling schemes.

All producers of batteries and accumulators have to be registered.”

Directive 2006/66/EC on batteries and accumulators and waste batteries and accumulators (and amending acts).

“**End-users** must receive information on several subjects and through different channels:

- on the potential effects on the environment and human health of the substances used in batteries and accumulators, and on the collection and recycling arrangements at their disposal, through campaigns or directly by distributors;
- on the capacity of the accumulator or the portable battery or on the presence of chemicals above a certain threshold, information will be given using visible, legible and indelible markings on batteries, accumulators and battery packs;
- on the need to ensure separate collection for batteries or accumulators, the symbol of the crossed-out wheeled bin is to be used.”

Directive 2006/66/EC

on batteries and accumulators and waste batteries and accumulators (and amending acts).

- Several hundred thousand tonnes of industrial and portable batteries and accumulators are placed on the Community market every year.
- A wide range of metals are used, from mercury, lead and cadmium to nickel, copper, zinc, manganese and lithium.
- Disposing of the waste from these products pollutes the atmosphere (in the case of incineration) and contaminates ground-cover and water (in the case of landfill or burial).
- Through appropriate rules it will be possible to reduce the environmental pollution from this waste.
- In addition, recycling the waste enables the recovery of thousands of tonnes of metals, including precious metals like nickel, cobalt and silver.

How does this work?



Directive 2012/19/EU on waste electrical and electronic equipment (WEEE)

- Designed to prevent electrical and electronic waste by requiring EU countries to ensure the equipment is recovered, reused or recycled.
- Producers have to make a financial contribution to cover the costs of collecting, treating and sustainably disposing of both non-household equipment and private electrical waste deposited at dedicated collection points.
- Variable collection target from 2016 onwards, taking account of individual national economies: 45 % of the average weight of products placed on the market in a given country in the 3 preceding years.

How does this work?

- The producer responsibility means that the electrical and electronic device manufacturers and importers are obliged to arrange a cost-free reception network for waste electrical and electronic equipment discarded by consumers.
- The consumer may return old electrical and electronic equipment for recycling at no charge. The recycling fee has already been paid for in the appliance's purchase price.
- The appliances can be returned to WEEE collection points, several stores also accept waste electrical and electronic equipment.

Legislation Controlling packaging and packaging waste



Legislation on Packaging and Packaging Waste

Directive 94/62/EC on packaging and packaging waste

- covers all packaging placed on the European market and all packaging waste, whether it is used or released at industrial, commercial, office, shop, service, household or any other level, regardless of the material used.
- Member States should take measures to prevent the formation of packaging waste, and to develop packaging reuse systems reducing their impact on the environment.
- Specific targets for packaging waste recovery or incineration and reduction of materials contained in packaging waste must be attained.

Legislation on Packaging and Packaging Waste

- The packaging shall indicate the nature of the materials used for the packaging in order to facilitate identification and classification. The marking must be attached to the actual packaging or on its label. It must be clearly visible and legible.
- Packaging must meet certain requirements.

Legislation on Packaging and Packaging Waste

Member States must ensure that packaging placed on the market complies with the essential requirements of Annex II:

- to limit the weight and volume of packaging to a minimum in order meet the required level of safety, hygiene and acceptability for consumers;
- to reduce the content of hazardous substances and materials in the packaging material and its components;
- to design reusable or recoverable packaging.

Member States should develop information systems (databases) on packaging and packaging waste so that realisation of the targets of this Directive can be monitored.

Legislation Controlling Waste from Specific Activities



Waste from Specific Activities

- Industrial emissions
 - Management of waste from extractive industries
 - A strategy for better ship dismantling practices
 - Removal and disposal of disused offshore oil and gas installations
 - Use of sewage sludge in agriculture
 - Port facilities for ship-generated waste and cargo residues
- > read more on these on www.europa.eu

Legislation Controlling Radioactive Waste and Substances



Radioactive Waste and Substances

- Shipments of radioactive waste: supervision and control
- Shipments of radioactive substances
- Situation in 1999 and prospects for radioactive waste management
- Management of spent fuel and radioactive waste

-> read more on these on www.europa.eu