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Notes:

1. This regulatory summary is designed to provide guidance only. The information contained in the summary is selective and delegates should refer to actual legal texts or consult experts if necessary.

2. Reference is made to applicable regulations in Scotland within the main body of text where appropriate. This is mainly to highlight the differences to UK legislation or to reference the equivalent Scotland regulation. Again this is for guidance only.

Specific reference to Scotland can be found on pages:

4,5 & 6 Scottish Environmental Protection Agency

9 Local Government

10,11 & 12 Section 2 - General Environmental Management

19 & Section 3 - Air Pollution

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Sources of Information:

1. Cedrec Professional (International Marketing Enterprises Ltd, Business and Innovation Centre, Sunderland Enterprise Park (East), Wearfield, Sunderland, SR5 2TA
2. National Society for Clean Air 1999 Pollution Handbook (136 North Street, Brighton, BN1 1 RG)
3. Croner Electronic (Croner Publications, 145 London Road, Kingston-upon-Thames, Surrey, KT2 6SR)
4. UK Statutory Instruments website (www.hmsso.gov.uk/stat.htm)

Section 1 - The Regulators

THE ENVIRONMENT AGENCY

Introduction

The following information is taken directly from the Environment Agency's own publicity material.

THE AIM OF THE AGENCY

The new Environment Agency for England and Wales is one of the most powerful environmental regulators in the world.

It provides a more comprehensive approach to the protection and management of the environment by combining the regulation of land, air and water. Its creation is a major and positive step, merging the expertise of the National Rivers Authority, Her Majesty's Inspectorate of Pollution, the Waste Regulation Authorities and several smaller units from the Department of the Environment (now DETR).

The Agency exists to provide high quality environmental protection and improvement. This is achieved by an emphasis on prevention, education and vigorous enforcement wherever necessary. Industry also benefits because it now deals with one regulator instead of three. The Agency seeks to become a first stop shop for all business activities.

THE OBJECTIVES OF THE AGENCY

The Agency works towards Sustainable Development through seven objectives, set by Ministers:

1. All integrated approach to environmental protection and enhancement, taking into consideration the impact of all activities and natural resources;
2. Delivery of environmental goals without imposing disproportionate costs on industry or society as a whole;
3. Clear and effective procedures for serving its customers, including the development of single points of contact with the Agency;
4. High professional standards, using the best possible information and analytical methods;
5. Organisation of its own activities to reflect good environmental and management practice, and provision of value for money for those who pay its charges, as well as for taxpayers as a whole;
6. Provision of clear and readily available advice and information on its work;
7. Development of a close and responsive relationship with the public, including Local Authorities, other representatives of local communities and regulated organisations.

THE WORK OF THE AGENCY

The Agency takes a much wider view of environmental regulation than was possible for its predecessors, though remaining an independent, impartial and firm regulator and firm regulator in their best traditions. It has responsibility for:

- Regulating over 2000 industrial processes with the greatest polluting potential, using the best available techniques not entailing excessive cost to prevent or minimise pollution;
- Advising the Environment Secretary on the Governments National Air Strategy, and providing guidance to Local Authorities on their local Air Quality Management Plans;
- Regulating the disposal of radioactive waste at more than 8000 sites, including nuclear sites, and the keeping and use of radioactive material and the accumulation of radioactive waste at non-nuclear sites only;
- Regulating the treatment and disposal of controlled waste, involving 8,000 waste management sites and some 70,000 carriers so as to prevent pollution or harm to human health;
- Implementing the Governments National Waste Management Strategy for England and Wales in its Waste Regulation work;
- Preserving and improving the quality of rivers, estuaries and coastal waters through its pollution control powers, including 100,000 water discharge consents and regulation of more than 6000 sewage works;
- Action to conserve and secure proper use of water resources, including 50,000 licensed water abstractions;
- Supervising all floor defence matters, involving over 43,000 km of defence works;
- Maintenance and improvement of salmon, trout, freshwater and ell fisheries, including issue of some 1,000,000 angling licenses;
- Conserving the water environment, including areas of outstanding natural beauty or environmental sensitivity extending to nearly 4 million hectares, and promoting its use for recreation;
- Maintaining and improving non-marine navigation, including licensing of some 40,000 boats;
- Regulating the management and remediation of contaminated land designated as special sites;
- Providing independent and authoritative views on a wide range of environmental issues which may involve analysis and comment beyond the Agency's specific regulatory remit;
- Liaison with international counterparts and Governments, particularly within the European Union, to help develop consistent environmental policies and action world wide.

Chapter II of Part I of the Environmental Protection Act 1990 deals with the establishment of the Scottish Environmental Protection Agency (SEPA), This has taken on the functions of the River Purification Authorities with respect to water resources and pollution, their functions as an enforcing authority under the 1990 Act, and those relating to flood warning. It has taken on the functions of the waste regulation and disposal authorities as well as the functions of Her Majesty's Industrial Pollution Inspector.

SCOTTISH ENVIRONMENT PROTECTION AGENCY

The Scottish Environment Protection Agency (SEPA) is a non-departmental public body responsible for the protection of the environment in Scotland and is accountable to the Secretary of State for Scotland. SEPA took on the duties and responsibilities of the following bodies.

1. The River Purification Boards and their counterparts in the three Islands Councils.
2. The 56 District and Islands Councils in respect of their functions as:
 - (a) local enforcing authorities for releases of substances to air (LAAPC)
 - (b) waste regulation authorities
 - (c) Her Majesty's Industrial Pollution Inspectorate.

SEPA's duties, however, extend beyond the sum of its predecessors and include a range of additional responsibilities including:

- polluting activities, through regular monitoring of the general state of the environment
- the extent of atmospheric pollution
- changes in the amounts of rivers, lochs, coastal waters and estuaries in particular quality classes
- bathing water quality
- water resource conservation
- the effectiveness of flood risk assessment forecasting
- biodiversity of the aquatic environment
- quantity and nature of waste arising and the quality of waste management
- assessment of the impact of diffuse sources of pollution on the environment
- influence of sustainable development in Scotland.

SEPA is charged with contributing to the implementation of the Government's Policy on sustainable development.

The Environment Agency and SEPA both became fully operational on 1 April 1996.

SEPA'S DUTIES AND POWERS

The principal functions of SEPA are:

- consenting of discharges to the water environment (surface, coastal and groundwaters)
- conserving water resources as far as practicable and promoting the conservation and enhancement of the natural beauty and amenity of controlled waters
- providing flood warning systems, assessing the risk of flooding on any area and advising planning authorities on flood risk
- granting abstraction licences for irrigation where a control order is in force
- issuing authorisations to prevent, minimise or render harmless the release of substances into the environment from prescribed processes
- authorising the handling and disposal of radioactive materials and registering persons holding or using such materials
- licensing of waste management activities
- registering waste carriers and brokers and regulating the transfrontier shipment of waste
- advising on whether contaminated land should be designated as a "special site" and also act as enforcing authority for such sites - not yet in force
- taking enforcement action against persons breaching licence conditions or illegally polluting the environment
- carrying out assessments of the general state of the environment (if required by the Secretary of State for Scotland)
- keeping up-to-date on pollution control technology, with powers to undertake relevant research and development
- powers to require creation of smoke control areas
- a duty to have regard to the desirability of conserving and enhancing the natural and manmade environment and to the social and economic needs of any area
- a duty to take into account the likely costs and benefits of exercising its powers
- a duty to ensure compliance with the "producer responsibility" regulations
- status as a statutory consultee on new land drainage works (s.24 Environment Act 1995) - not yet in force
- reserve powers, with Secretary of State for Scotland approval, to direct local authorities to achieve air quality standards (s.85(3) Environment Act 1995) - not yet in force.

In addition, SEPA is required to implement the Secretary of State for Scotland's guidance on sustainable development.

WATER SERVICE COMPANIES

Industrial discharges to sewer are regulated primarily by the ten regional Water Services Companies. Discharges are controlled and monitored under the provisions of the Water Industry Act 1991. The 1991 Act consolidates the provisions of earlier Acts relating to sewer discharges and water supply. (If the site is an IPC site, regulation is by the Environment Agency.

Under the Water Industry Act 1991 (Section 118), effluent may not be discharged to public sewer without a discharge consent from the appropriate Water Service Company. Conditions of effluent quality and quantity are attached to the consent, and lay down the permitted constituents, their amounts, flow and other parameters such as temperature and pH of the effluents.

Certain trade effluents are classified as special category effluent when they arise from particular processes or contain specified substances that appear on a list of toxic, bioaccumulative or persistent substances. Water Service Companies are required under the Water Industry Act 1991 to refer new permissions for these effluents and amendments to existing permits to the Secretaries of State for the Environment or Wales.

LOCAL AUTHORITIES

Local authorities are responsible for various environmental pollution control functions. In rural areas these may be two authorities with separate but linked functions. In metropolitan areas there will be one unitary authority, which discharges all local authority functions except those, covered by a Development Corporation or Port Authority. The following authorities carry out environmental functions as follows:

County Councils:	Planning Authority
Distict Councils:	Air Pollution Control, Noise Pollution, Local Authority Waste Disposal Company, Planning Authority
Metropolitan Councils:	All of the <u>above</u>

These functions are detailed below.

Local Planning Authorities: Local Planning Authorities are usually a department of the local council. Each Council, be it District, County or Metropolitan is likely to have a specific planning department. There are a number of other planning authorities that include Development Corporations and certain National Parks. All local planning authorities have jurisdiction over a specific geographical area. They must also be consulted about development that may be considered to have an effect on its geographical area from a neighbouring area.

Air Pollution Control: Non-industrial or lesser forms of pollution, such as exhaust fumes from traffic, effluent from blocked sewers, noise pollution or excessive smells from a piggery or farm silage heap, are normally dealt with by Environmental Health Officers appointed by local authorities. If local action is not enough, matters may be handed over to the Department of Transport, the Ministry of Agriculture, Fisheries and Food or some other central authority, not to the Environment Agency.

For less polluting processes (about 27,000) the control of emissions to air alone is exercised by local authorities under a system known as Atmospheric Pollution Control (APC). For the first time local authorities also have a duty to give prior written authorisation for the prescribed processes under their control.

Complaints of statutory nuisance are also dealt with by local authorities.

Noise Pollution: Local authorities (District Councils and Metropolitan Borough Councils) may serve an abatement notice where they are satisfied that a statutory nuisance exists or is deemed likely to occur or recur.

LOCAL GOVERNMENT IN SCOTLAND

There are 32 Scottish Unitary Councils, the largest being the City of Glasgow and the smallest Orkney. These authorities undertake all matters of importance for environmental management. All the unitary councils are the environmental health authorities. However, functions that were previously the responsibility of local authorities, such as waste regulation, now fall within the remit of THE Scottish Environment Protection Agency (SEPA) as does air pollution control for Part B processes, which in England are subject to Local Authority Air Pollution Control (LAAPC).

The unitary councils are the planning authority, responsible for development control, and building control as well as the trading standards function. The unitary councils are the waste collection authorities, although waste disposal is regulated by SEPA.

Section 2 - General Environmental Management

Applicable Legislation

Existing national legislation includes:

- The Town and Country Planning Act 1990 (as amended)
- Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (SI 1999 No. 293).
- The Environment Act 1995
- The Contaminated Land (England) Regulations 2000
- The Environmental Information Regulations 1992
- The Wildlife and Countryside Act 1981

Key EU legislation includes the Council Regulation 92/880/EEC on a Community Eco-label award scheme. The Competent Body for the EU Eco-Labeling Scheme is the UK EcoLabelling Board.

Planning Law

Under s.57 of the **Town and Country Planning Act 1990** (TCPA 1990) planning permission is generally required for acts of development and material changes in land use. There are exceptions to this general rule. For example, historically UK planning law only applies to land above the mean low water mark and many agricultural developments do not require planning permission. Similarly, developments on Crown Estates land do not require planning permission.

The equivalent legislation in England is The Town and County Planning order 1995.

Hazardous developments are usually controlled for planning purposes by the **Planning (Hazardous Substances) Act 1990** and related regulations.

Planning legislation and regulations are supported in England and Wales by a series of Department of the Environment (England) and Welsh Office (Wales) Circulars and Planning Policy Guidelines (PPGs) which, although not legally binding are generally accepted as setting the "norms" for planning applications, decisions and the policies of those required to judge planning applications (largely the Local Planning Authority (LPA), although appeals may be made to the Secretary of State for the Environment). PPGs cover specific areas, for example, PPG7 "The Countryside", PPG9 "The Rural Economy and Nature Conservation" and PPG12 "Planning and Sustainability". Separate guidance is also available for the minerals and mining sectors through a series of Minerals Policy Guidance or MPGs.

Environmental Impact Assessments

Environmental impact assessments (EIAs) may be required for new developments or changes that have significant environmental effects.

The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 divide the types of projects affected by Directive 85/337/EEC and Directive 97/11/EC into two lists. The first (schedule 1) lists those projects where an Environmental Impact Assessment (EIA) is always considered mandatory; the second (schedule 2) lists those that may require an EIA, if they exceed certain thresholds and if they are likely to give rise to "significant" effects on the environment.

If a development requires an EIA, an environmental statement must be submitted in conjunction with an application for planning consent. Advice on the content of the environmental statement must be given to a developer who requests such information before the application is made. The advice of the planning authority is known as a "scoping opinion" and the advice of the Secretary of State is known as a "scoping direction". Schedule 4 of the **Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999** provides more information on what should be included in an environmental statement.

In **Scotland** there are the **Environmental Impact Assessment (Scotland) Regulations 1999** which applies to every EIA application received by the planning authority who shall not grant planning permission pursuant to an application to which this regulation applies unless they have first taken the environmental information into consideration.

Protection of Wildlife and Countryside

The key legislation intended to protect wildlife and the countryside which supports it is detailed below:

The National Parks and Access to the Countryside Act 1949 - allowing for the designation and protection of National Parks, "The Broads" and Areas of Outstanding Natural Beauty (AONBs) which now benefit from improved development control and pollution control. The 1949 Act also led to the formation of the Countryside Commission (in England) and the Countryside Council for Wales - the two bodies responsible for designating and protecting AONBs.

The Countryside Act 1968 lays down provisions (under ss.37 and 38) to protect the countryside and avoid pollution. These responsibilities have now passed to the National Park Authorities (see Environment Act 1995 below). Under the 1968 Act LPAs may provide and maintain "country parks" and protect them from unsuitable development.

The Wildlife and Countryside Act 1981 calls for the protection, control and management of endangered wildlife and the countryside which supports it. The Act allows for the creation and protection of Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Marine Nature Reserves (MNRs). SSSIs are designated and managed by the Nature Conservation Bodies: English Nature and the Countryside Council for Wales. The 1981 Act also laid down the planning functions for all of the above and for National Parks.

The Conservation (Nature Habitat) Regulations 1994 implement EU Directives 79/409 and 92/43 (the Birds Directive and the Habitats Directive) and establish rules for the protection of Special Protection Areas (SPAS) and Special Areas of Conservation (SACS).

The Environment Act 1995 now enables the Secretary of State for Environment to establish National Park Authorities (NPAs) in England and Wales for any existing or new National Park and for these to supersede any previous authority. The NPAs assume the responsibilities of the Local Planning Authority for the area of the park and the hazardous substances authority for substances subject to **the Planning (Hazardous Substances) Regulations 1992**. The Broads Authority also exists under the **Norfolk and Suffolk Broads Act 1988** to protect and enhance this unique natural resource.

Access to Environmental Information

In the UK there is no one single statutory basis for the disclosure of information about the environment. Various registers exist under the following legislation:

- Water Industry Act 1991
- Water Resources Act 1991 (e.g. register of discharge consents) Environmental Protection Act 1990 (e.g. register of [PC processes and Waste Management Licenses)
- Environment and Safety Act 1988 (requires the Health and Safety Executive and the fire authorities to keep register of enforcement and safety notices they have issued).
- Town and Country Planning Act 1990 (provides for public access to planning registers). Planning (Control of Major-Accident Hazards) Regulations 1999
- Environmental Protection (Disposal of Polychlorinated Biphenyls and other Dangerous
- The Pollution Prevention and Control (England and Wales) Regulations 2000
- Contaminated Land (England) Regulations 2000
-

However, the **Environmental Information Regulations 1992**, which implements EU Directive 90/313/EEC on Freedom of Access to Information on the Environment, grants rights of access to information other than that contained in registers.

THE ENVIRONMENT ACT 1995

The Environment Act 1995 relates to a variety of environmental issues. Part I deals with the establishment of an Environment Agency, Part II sets out new provisions in relation to contaminated land and abandoned mines. There are also provisions establishing a European scheme for the recovery of packaging waste and others affecting hedgerows, fisheries, national parks and the introduction of a national waste strategy. A number of new sections are inserted into the Control of Pollution Act 1974, the Environmental Protection Act 1990 and the Water Resources Act 1991.

Contaminated Land

Under Part II of the Act, Local Authorities have a duty to inspect their area in order to identify any contaminated land in their area. Some special sites with the potential to cause serious environmental damage or water pollution are subject to more stringent provisions and come under the control of the Environment Agency instead of the Local Authority.

The authorities can serve remediation notices, requiring work to be carried out to remedy the pollution and for special sites the Environment Agency can serve remediation notices.

Non-compliance with a remediation notice is a criminal offence with fines of up to £20,000. The local authority also has the power to carry out the remediation themselves and charge the costs to the person served with the notice.

Packaging Waste Recovery

The Act establishes a legal base for future regulations on packaging recovery in accordance with the ECs Packaging Directive 94/62/EC.

This has now been implemented by The Producer Responsibility Obligations (Packaging Waste) Regulations SI 1997/648 This regulation is intended to allow the UK to meet its national recovery and recycling targets set by the Packaging and Packaging Waste Directive (see section on solid waste).

Air Quality Management

Part IV of the Environment Act creates new provisions for air quality management. The Secretary of State is required to produce a national air quality strategy.

Local Authorities will be granted new powers to review and assess local air quality impacts including powers to designate Air Quality Management Areas. Within these areas Action Plans to improve local air quality will be formulated.

Local authorities are given powers to impose spot checks and to fine vehicle operators who are not complying with emission standards.

National Parks

Under Part III of the Act amendments are made to the National Parks and Access to the Countryside Act 1949 and the Town and Country Planning Act 1990 so that National Park Authorities also act as local planning authorities for their area.

The National Park Authorities are to foster the economic and social well-being of the local communities within the National Park.

Other Provisions

Part V of the Act gives extra powers to the Secretary of State to protect hedgerows and to introduce regulations on the recovery, re-use and recycling of materials.

The Act also provides for the removal of tripartite sampling in the monitoring of water pollution as part of a move towards the use of automated monitoring and sampling equipment and greater self-regulation by industry.

Finally there is a provision for grants to be made available for purposes conducive to conservation and further provisions relating to mineral planning permissions, drainage, fisheries.

Section 3 - Air Pollution

Acts of Parliament (includes)

Health and Safety Act 1974 (Part 1)
 Highway Act 1980 sections 161 & 161 A
 Environmental Protection Act 1990
 Clean Air Act 1993
 Environment Act 1995
 Finance Act 2000

Statutory Instruments (includes)

There is an extensive list mainly relating to Smoke Control Areas (Exempted Fireplaces) Orders and Authorised Fuels Regulations and these are not included here. Examples of relevant Statutory Instruments include:

S11990/556 Control of Asbestos in Air Regulations,
S11991/472 Environmental Protection (Prescribed Processes and Substances) Regulations (as amended)
S11991/507 Environmental Protection (Application, Appeals and Registers) Regulations (as amended)
 SI 1995/3146 Air Quality Standards (Amendment) Regulations,
S11996/506 Environmental Protection (Controls on Substances that Deplete the Ozone Layer) Regulations,
 SI 1996/2678 The Environmental Protection (Prescribed Processes and Substances Etc.) (Amendment) (Petrol Vapour Recovery) Regulations,
 SI 1997/3043 Air Quality Regulations,
S11998/767 Environmental Protection (Prescribed Processes and Substances) (Amendment) (Hazardous Waste Incineration) Regulations,
S11998/930 Fossil Fuel Levy Act 1998 (Commencement) Order,
 SI 2000/928 The Air Quality (England) Regulations
 SI 2000/1460 The Sulphur Content of Liquid Fuels (England and Wales) Regulations
 SI 2000/1940 Air Quality (Wales) Regulations

The Environmental Protection Act 1990

The Environmental Protection Act 1990 is divided into a 10 Parts, the first three of which are highly relevant to many manufacturing operations. A brief description of the first three parts is as follows:

PART I - Integrated Pollution Control and Local Authority Air Pollution Control (S 1-28)

This part of the Act is described in some detail in the air pollution section. It includes 28 sections, in particular section 6 EPA 1990 which requires the authorisation of certain prescribed processes and section 23 which establishes criminal liability in respect of breaches of Part 1 EPA 1990.

Part I considerably strengthens the controls concerning industrial air pollution and gives central government new powers to set emission limits and air quality standards. EC legislation has been a major driving force behind this change. It introduced two new emission control regimes for "prescribed" industrial, commercial and other processes - Integrated Pollution Control and Atmospheric Pollution Control (IPC and APC).

IPC covers all major solid, liquid and gaseous emissions to air, land and water from the most polluting and complex industrial processes - Part A processes. IPC recognises that reduction of a release to one environmental medium could well have implications for another. In cases of releases to more than one environmental medium from processes under central control, the enforcing authority is to set conditions to ensure that Best Practicable Environmental Option (BPEO) is secured to minimise pollution to the environment as a whole.

Part I of the Act is supplemented by a series of Statutory Instruments (SI). These are as follows: Environmental Protection (Prescribed Processes and Substances) Regulations, SI 1991/472 (as amended); Environmental Protection (Applications, Appeals and Registers) Regulations, SI 1991/507 (as amended); Environmental Protection (Authorisation of Processes) (Determination Periods) Order, SI 1991 /513 (as amended).

PART II - Waste on Land (S 29-78)

Part II of the Act is described in greater detail in the waste introduction section. The most controversial and far reaching provision is section 34 EPA 1990 which creates a statutory duty of care/imposes a statutory duty of care on waste holders. Part II replaces and strengthens the provisions controlling waste disposal found in the Control of Pollution Act 1974. It is enacted by a series of Statutory Instruments (SSI) which are as follows:

Environmental Protection (Duty of Care) Regulations, SI 1991/2839; Environmental Protection Act 1990 (Commencement No 15) Order, SI 1994/1096; Waste Management Licensing Regulations, SI 1994/1056 (as amended); Special Waste Regulation, SI 1996/972.

Part IIA (which was inserted by section 57 of the Environment Act 1995) is concerned with the identification and remediation of contaminated land. The determination of liability is also provided for, in respect of the remediation of the land and for details of contaminated land to be held on public register.

PART /// - Statutory Nuisance (S 79-82)

Local Authorities have the power to abate a statutory nuisance or to prevent one occurring (see section on Noise).

Authorisation to Operate for Certain Facilities

The current legislative system for air pollution control centres around the existence of two separate lists for so-called "A" and "B" prescribed processes (or emissions of prescribed substances). These lists are contained in the Environmental Protection (Prescribed Processes and Substances) Regulations 1991 as amended.

Part A processes (the most polluted or potentially toxic emissions) are subject to Integrated Pollution Control (IPC) and are regulated by the Environment Agency. Part B processes (atmospheric releases from less polluting processes) are subject to Local Authority Air Pollution Control (LAAPC) and are regulated by the relevant local authority (London borough councils, district councils or unitary authorities). Sites operating any of these prescribed processes or releasing prescribed substances must apply for an authorisation to operate under Part I of the Environmental Protection Act 1990.

Part A processes are split into six groups:

- Fuel production and combustion e.g. refining natural gas or producing gas from coal.
- Metal production and processing e.g. iron and steel production or refining steel or ferro alloys.
- Mineral industries, e.g. cement and lime manufacture or glass fibre manufacture.
- Chemical industries, e.g. petrochemical processes including the manufacture of organic chemicals, pesticides, fertilisers and pharmaceuticals.
- Waste disposal and recycling, e.g. incineration processes and processes for recovery via distillation.
- "Other industries", e.g. paper-making processes (above specified production levels); certain coating and printing processes; manufacture of dyestuffs; etc.

Part B processes include: non-ferrous metal processes; glass manufacture and processing; timber processes involving sawing, drilling or sanding (above an annual specified limit) and maggot breeding!

Prescribed substances for release to the atmosphere which are listed in the 1991 Regulations include: oxides of sulphur, nitrogen and carbon; metals, glass fibre and asbestos, halogens and their compounds and particulate matter.

Both Environment Agency and Local Authority authorisations require proof that the applicant is applying the Best Available Techniques Not Entailing Excessive Costs (BATNEEC) in their business activities, in order to limit emissions to atmosphere. In the case of Environment Agency authorisations, if more than one BATNEEC process is available to the applicants then they must prove that they have selected the Best Practicable Environmental Option (BPEO) for pollution control

and are not simply moving pollution from one environmental medium to another. The authorisations typically set specific limits on emissions and requirements for operating and maintaining equipment, emission monitoring and reporting. These limits and conditions are usually based on Environment Agency and Department of the Environment Guidance Notes for each process. **(Note SEPA has taken on the function of local authorities as the enforcing authority in relation to releases of substances to air under part 1 on the 1990 Act)**

The Clean Air Act 1993

The *Clean Air Act 1993* contains a number of provisions relating to the control of grit, smoke and dust. Industrial chimneys have to be of a certain height approved by the local authority and grit and dust arrestment plant must be installed to control these emissions. The Act also prohibits, subject to conditions, emissions of dark and black smoke from chimneys serving boilers and industrial plant. Details of the restrictions are determined by the *Dark Smoke (Permitted Periods) Regulations 1958*. Two separate circumstances are considered, i.e. continuous and intermittent emissions. The limit for continuous emission of dark smoke, caused otherwise than soot-blowing, is four minutes. The determination of intermittent emissions is based on aggregate emissions for a period of eight hours.

In addition, the *Clean Air Act 1993* requires that all new furnaces (any enclosed or partially enclosed space in which solid, liquid or gaseous fuel is burned, or in which heat is produced) must be capable, so far as is practicable, of operating continuously without emitting smoke when burning fuel for which they are designed, and the local authority must be informed of proposals to install such furnaces. Details of the permitted quantities of grit and dust to be emitted from furnaces are contained in the Clean Air Act (Emission of Grit and Dust from Furnaces) Regulations. These regulations also require the fitting of plant to new furnaces to arrest emissions of grit and dust.

N.B. Part A processes leading to the emission of dark smoke still fall under the provisions of the EPA 1990 and **NOT** the Clean Air Act 1993.

Dark Smoke - Section 1 of the Act prohibits: dark smoke emissions from a chimney of any building; dark smoke emissions from a chimney serving the furnace of a fixed boiler or industrial plant

Section 2 of this act prohibits dark smoke from any industrial or trade premises (there is no requirements under section 2 for the dark smoke to be emitted from a chimney). In the case of *Sheffield City Council v ADH Demolition LTD (1984)* it was held that premises could include a demolition site.

If a prosecution is brought under section 2, it is presumed that dark smoke has been emitted in any case where: material is burned on the premises; and the circumstances are such that the burning would be likely to give rise to the emission of dark smoke. It is up to the person charged to show that no dark smoke was emitted

Penalties: Section 1: a fine not exceeding level 5 (£5, 000) on the standard scale (level 3 for a residential premises)
 Section 2: a fine not exceeding £20,000

Investigating officers will have to familiarise themselves with the boiler or furnace causing emissions and gather information on the operating cycle, the type and condition of fuel and combustion air supplies. Also the general state of maintenance and service details etc.

Details of exemptions from these provisions are set out in the Clean Air (Emissions of Dark Smoke) (Exemptions) Regulations SI 1969/1263.

Schedule 22 of the **Environment Act 1995** amends these provisions. On 1 April 1996 the maximum fine for an offence concerning the emission of dark smoke was increased from 25,000 to £20,000.

The Finance Act 2000

This Act applies to England, Scotland, Wales and Northern Ireland. As of 1st April 2000 the standard rate of landfill tax is increased from £10 to £11 a tonne. The £2 a tonne rate for inert waste remains unchanged. The Government also intends to increase the landfill tax rate by £1 each year until at least 2004.

Section 30 and Schedule 6 and 7 of this Act make provisions for a new tax called the **Climate Change Levy**, which aims to achieve a balance between environmental objectives and administration, by organising energy industries and minimising the compliance costs to business. It is chargeable on the industrial and commercial supply of taxable commodities for lighting, heating and power by consumers of various business sectors. Those sectors to which this levy applies, must register with the Commissioners of Customs and Excise. The Climate Change Levy (Registration and Miscellaneous Provisions) Regulation SI 2001/7, cover the issue of registration in more detail.

The following are taxable commodities: Electricity, Natural gas, Petroleum and hydrocarbon gas in a liquid state, Coal and lignite, Coke and semi-coke, Petroleum coke. The following are not taxable commodities for purposes of the Climate Change Levy: Oil, Road fuel gas, heat, Steam, Waste.

The Air Quality Regulations 1997

These regulations came into force on 24 December 1997 and must be achieved by 31 December 2005.

Part IV of the Environment Act 1995 requires local authorities to survey the air quality at in their area. The survey has to take into account the air quality at present and the likely air quality (being between 14 of December 1997 and the 31 of December 2005), during the relevant period (which is described in the regulations).

These surveys have to be accompanied by an assessment of whether any specific air quality standard or objectives are being met or are likely to be met within the relevant period.

If any of the air quality objectives are not likely to be met within and local authority area in the relevant time period, the local authority will have to allocate that area an air quality management area. A plan must then be prepared by the local authority to give details on how the intent to achieved the specific air quality standard. A county council has to submit a proposal of the action plan to a district council (this applies to England only).

These regulations have now been revoked and replaced in England by the **Air Quality (England) Regulations SI 2000/928**; in Wales by the **Air Quality (Wales) Regulations SI 2000/1940**; in Scotland by the **Air Quality (Scotland) Regulation SS12000/97**.

Section 4 - Integrated Pollution Control

Acts of Parliament (includes)

Alkaline Work Etc. Act 1906 (repealed)

Environment Protection Act 1990

The Pollution Prevention Control Act 1999

Statutory Instruments (includes)

SI 1991/472 Environmental Protection (Prescribed Processes and Substances) Regulations (as amended)

SI 1991/507 Environmental Protection (Application, Appeals and Registers) Regulations (as amended)

SI 1991/513 Environmental Protection (Authorisation of Processes) (Determination Periods) Order (as amended)

SI 1991/836 Environmental Protection (Amendment of Regulations) Regulations

SI 1992/614 Environmental Protection (Prescribed Processes and Substances) (Amendment) Regulations

SI 1993/1749 Environmental Protection (Prescribed Processes and Substances) (Amendment) Regulations

SI 1993/2405 Environmental Protection (Prescribed Processes and Substances) (Amendment) (No.2) Regulations

SI 1994/1271 Environmental Protection (Prescribed Processes and Substances) (Amendment) Regulations

SI 1994/1329 Environmental Protection (Prescribed Processes and Substances) (Amendment) (No.2) Regulations

SI 1994/2847 The Environmental Protection (Authorisation of Processes) (Determination Periods) (Amendment) Order

SI 1995/3247 The Environmental Protection (Prescribed Processes and Substances) (Amendment) Regulations

SI 1996/667 The Environmental Protection (Applications, Appeals and Registers) (Amendment) Regulations

SI 1996/979 The Environmental Protection (Applications, Appeals and Registers) (Amendment No. 2) Regulations

SI 1996/2678 The Environmental Protection (Prescribed Processes and Substances Etc.) (Amendment) (Petrol Vapour Recovery) Regulations

SI 1998/767 Environmental Protection (Prescribed Processes and Substances) (Amendment) (Hazardous Waste Incineration) Regulations

SI 2000/1973 The Pollution Prevention and Control (England and Wales) Regulations

The Environmental Protection Act 1990 (see also under section 3 - Air Pollution)

Part I of the Environmental Protection Act 1990 (EPA) introduced Integrated Pollution Control (IPC), a new control regime for, "prescribed industrial processes or substances", which are likely to involve the greatest risk of pollution.

The Environment Agency in England and Wales regulates processes subject to IPC and these are the most seriously polluting processes.

For the first time the emissions from such processes are controlled under a single authorisation, covering discharges to air, water and land. The prescribed processes for [PC are set out in the **Environmental Protection (Prescribed Processes and Substances) Regulations, SI 1991/472 (as amended)**.

Part 1 of the Environmental Protection Act 1990 (EPA) also introduced Atmospheric Pollution Control (APC), a new control regime for "prescribed industrial processes or substances". This provides the basis for a system controlling emissions to air alone, from less polluting sources (about 27,000 in all). These processes are regulated by local authorities (District Councils, London and metropolitan boroughs, and where appropriate port health authorities). The prescribed processes for APC are set out in the **Environmental Protection (Prescribed Processes and Substances) Regulations, SI 1991/472 as amended**).

Note: SEPA has taken on the function of local authority as the enforcing authority in prescribed processes and substances under Part 1 of the 1990 Act.

The European Commission (EC) is also following the lead of the UK with the introduction of Directive 96/61/EC on Integrated Pollution Prevention (IPPC) and Control to avoid the transfer of pollution problems across environmental media. This will operate in a similar way to IPC, but will also cover additional processes such as food processing and intensive livestock operations. In addition, decommissioning requirements and their likely environmental effects will have to be considered. One further change that will be introduced by IPPC is that the Environment Agency will be able to regulate noise (which includes vibration) emissions. This is not currently covered by IPC. Further changes are as follows; Certain activities which are not currently covered by IPC will under IPPC, main new candidates include certain smaller landfill sites, intensive pig and poultry rearing units, certain food processing plants; larger numbers of processes now subject to Air Pollution Control (APC) will become subject to IPPC; IPPC authorisation will be able to regulate other issues such as energy efficiency and the prevention of accidents.

Pollution Prevention and Control Act 1999 - Sections 1 and 2 of this Act allow the Secretary of State to make Regulations providing for a new pollution control system to meet the requirements of Directive 96/61 /EC on Integrated Pollution Prevention and Control and for other measures to prevent and control pollution. This new system has to incorporate the concepts and principles used in the Directive (such as Best Available Techniques and the general principles concerning energy efficiency,

the control of waste production and site restoration) in so far as the installations covered by the Directive are concerned.

The Pollution Prevention and Control (England and Wales) Regulations, SI 2000/1973 came into force on 1 August 2000 and apply to England and Wales. They are made under the **Pollution Prevention and Control Act 1999** and implement EC Directive 96/61/EC on Integrated Pollution Prevention and Control (IPPC) to establish a new regime for the control of industrial and all other installations that have a considerable impact on the environment. This regime is commonly referred to as "PPC".

The installations and activities carried out under PPC are classified as either A1, A2 or B processes. Processes classed as A1 are the most polluting and are regulated by the Environment Agency. Those classed as A2 and B are less polluting and are regulated by the relevant local authority.

One major difference between these Regulations and the original IPC regime is that a permit is now granted for a whole installation and not each individual process. New issues to be considered when granting a permit include energy efficiency, noise, use of raw materials, accidents and decommissioning. There are also new areas which are regulated in this way for the first time such as intensive livestock farming and the pulp paper industry.

The installations and mobile plants activities covered by PPC are listed in Schedule 1 of the regulations.

The Pollution Prevention and Control (Scotland) Regulation 2000 (SS1200) came into force on 29 September 2000, implementing the new Integrated Pollution Prevention and Control regime in Scotland.

Environmental Protection (Prescribed Processes and Substances) (Amendment) (Hazardous Waste Incineration) Regulations, SI 1998/767.

These Regulations Came into effect on 13 April 1998, and introduce changes to Integrated Pollution Control concerned with the incineration of waste. These regulations amend the **Environmental Protection (Prescribed Process and Substances) Regulations SI 1991/472** to implement the Directive 94/67/EC on the incineration of hazardous waste. The amendments add the incineration of hazardous waste to IPC - prescribed processed incineration. This now means that the majority of hazardous waste incineration processes are Part A processes, regulated by the Environment Agency. These regulations also detail which types of hazardous waste incineration processes are exempt. The main exemptions are to hazardous clinical waste and certain types of flammable wastes such as waste oils. The definitions of hazardous waste have been provided by article 1(4) of directive 91/689/EC as amended.

Section 5- Contaminated Land

The Environmental Protection Act 1990 defines both contaminated land and the responsibilities of the local authority and the overseeing functions of the Environment Agency. It is designed to bring the identification of contaminated land, associated problems and its redevelopment into an acceptable and understandable legislative framework.

The legal definition of contaminated land is found in Section 78A(2) of the **Environmental Protection Act 1990**. Contaminated land is:

"Any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land that

- a) significant harm is being caused or there is possibility of such harm being caused; or
- b) pollution of controlled waters is being, or is likely to be caused."

The Environmental Protection Act 1990 also controls "special sites". A special site may be any contaminated land that is in such a condition as to cause serious harm affecting living organisms, ecological systems or property, or cause pollution of controlled waters. Descriptions of special sites are now defined in **The Contaminated Land (England) Regulations 2000**. These Regulations, which extend to England only and came into force 1 st April 2000, make provision for certain aspects of a new scheme under Part IIA of the Environmental Protection Act 1990 for the remediation of contaminated land.

Regulations 2 and 3 (Land required to be designated as a special site and Pollution of controlled waters), and Schedule 1 (Special sites), identify those sites (known as " special sites") for which the **Environment Agency** is to be the authority responsible for enforcing the scheme. **Local authorities** are responsible for enforcing the scheme in the case of any other type of site.

Regulations 4 and 5 provide for the content and service of copies of " remediation notices", that is, notices served by a local authority or the Environment Agency specifying what is to be done by way of remediation and the time for taking any action.

Section 6- Solid Waste

Acts of Parliament (includes)

Environmental Protection Act 1990

Environment Act 1995

Waste Minimisation Act 1998

Finance Act 1999

Finance Act 2000

Statutory Instruments (includes)

S11991/508	Disposal of Controlled Waste (Exemptions Regulations) Regulations
SI 1991/1624	Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations
SI 1991/2839	Environmental Protection (Duty of Care) Regulations,
S11993/566	Controlled Waste (Amendment) Regulations
S11994/232	Batteries and Accumulators (Containing Dangerous Substances) Regulations
SI 1994/1056	Waste Management Licensing Regulations,
SI 1994/1137	Transfrontier Shipment of Waste Regulations,
S11996/634	Waste Management Regulations
S119961972	Special Waste Regulations
SI 1996/1527	Landfill Tax Regulations
SI 1996/2019	Special Waste (Amendment) Regulations
S11997/251	Special Waste (Amendment) Regulations
SI 1997/351	The Waste Management (Miscellaneous Provisions) Regulations (Amendment) Regulations
SI 1997/648	Producer Responsibility Obligations (Packaging Waste) Regulations
SI 1997/2003	The Waste Management Licensing (Amendment) Regulations
SI 1998/61	The Landfill Tax (Amendment) Regulation
SI 1998/605	Controlled Waste (Registration of Carrier and Seizure of Vehicles) (Amendment) Regulations
S11998/606	Waste Management Licensing (Amendment) Regulations
SI 1998/1165	Packaging (Essential Requirements) Regulations,
SI 1999/1361	The Producer Responsibility Obligations (Packaging Waste) (Amendment) Regulations
SI 1999/3447	Producer Responsibility Obligations (Packaging Waste) (Amendment) (No. 2) Regulations
SI 2000/3375	Producer Responsibility Obligations (Packaging Waste) (Amendment) (England and Wales) Regulations

Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations SI 1991/1624

These Regulations came into force on 14 October 1991.

The Control of Pollution (Amendment) Act 1989 makes it an offence for a person who is not a registered carrier to transport controlled waste to or from any place in Great Britain. It also provides for the seizure and disposal of vehicles carrying waste without registration.

These Regulations set up a system for registration of carriers of controlled waste and adds to the provisions of the Act dealing with the seizure and disposal of vehicles carrying waste without registration.

Environmental Protection (Duty of Care) Regulations SI 1991/2839

The concept of the Duty of Care for waste is set out in Section 34 of the **Environmental Protection Act (1990)** (EPA), and implemented by the above regulations which states that it is the duty of any person who imports, produces, carries, keeps, treats or disposes of controlled waste, or as a broker, has control of such waste, to take all measures applicable to him in that capacity as are reasonable in the circumstances to:

- Prevent any other person contravening Section 33 of the **Environmental Protection Act 1990**;
- Prevent the escape of waste from his control or that of any other person as defined in Part II of the **Environmental Protection Act 1990**;
- Ensure that the waste is transferred only to an authorised person or to persons for authorised transport purposes and that the waste is accompanied by a written description of the waste sufficient to enable other persons to avoid contravening Section 33 and to avoid the escape of waste from their control.

The producer of the waste must therefore ensure that transfer is only to an authorised person.

The duty applies to all companies regardless of whether they are operating with a waste management licence.

Domestic waste is not subject to the duty.

It is a criminal offence to breach the duty of care. It is not necessary for there to be any environmental damage before a prosecution is brought. Case law demonstrates that breach of any aspect of the duty, such as providing an insufficiently clear description of the waste, may result in criminal liability.

Any person who fails to comply with the duty may be liable to:

- a fine not exceeding the statutory maximum in the magistrates court; and
- if the matter goes to the Crown Court to an unlimited fine.

The Department of Environment (now DETR) has issued a Code of Practice which offers practical guidance on complying with the duty of care. The Code was issued in 1991 and revised in 1996.

The duty applies to any person who: imports; produces; carries; keeps; treats; disposes or controls as a broker controlled waste (The Department of Environment Transport and the Regions refers to anyone subject to the duty as a waste holder).

The duty requires all waste holder subject to the duty of care to take reasonable steps in their capacity to comply with all the elements of the duty. This means that the extent of the duty is not absolute but will vary depending upon the capacity of the waste holder and their relationship with the waste. The Code of practice gives guidance on what is considered reasonable for different persons. Providing it can be shown that a waste holder took reasonable steps then there will not be a breach of the duty of care.

A waste holder is under a duty to ensure that waste does not escape from his control or from the control of any other person who has control of the waste, such as a carrier. This means that all waste holders subject to the duty must safe guard against:

- corrosion or wear of containers;
- accidental spillage or leakage;
- accident or weather allowing waste to escape;
- waste blowing away or falling off during transport;
- scavenging by vandals, thieves, children or animals.

Waste handed over to another person must be in a suitable container and must be clearly labelled.

Waste can only be transferred to an authorised person or to a person for authorised transport purposes, both of which are defined in section 34 of the EPA 1990. Authorised transport purposes are defined in section 34 (4) as:

- the transport of controlled waste within the same premises between different places in those premises;
- the transport to a place in Great Britain of controlled waste which has been brought from a country or territory outside Great Britain not having been landed in great Britain until it arrives at that place;
- the transport by air or sea of controlled waste from a place in great Britain to a place outside Great Britain.

In almost all circumstances anyone carrying waste in the course of their business or for profit must be registered with the Environment Agency

Any person who fails to comply with the duty may be liable to:

- a fine not exceeding £20,000 in the magistrates court; and
- if the matter goes to the Crown Court to an unlimited fine.

DUTY OF CARE - WASTE TRANSFER NOTES

One of the key elements of the duty of care is to ensure that the transfer of waste is accompanied by a written description of the waste. This is to enable every person handling the waste to be certain as to the exact nature of the waste they are handling and also to ensure that the waste is finally deposited at a suitably licensed site.

In addition to a written description of the waste the transferor and the transferee must also transfer a Transfer Note. **The Duty of Care Regulations SI 1991/2839** state that all transfers of waste must be accompanied by a Transfer Note and the regulations also lays down the requirements of the written transfer note. Section 34 specifies that a series of transfers between the same parties of waste of the same description is to be treated as a single transfer taking place when the first of the transfers in the series is actually made

Both the transferor and the transferee must keep the written description of the waste and the transfer note (or copies of it) for a period of two years from the date of the transfer.

Waste Management Licensing Regulations SI 1994/1056

In England, Wales and Scotland, a Waste Management License (WML) is required for all sites that treat, keep or dispose of waste in or on specified land or the treatment or disposal of waste by means of mobile plant.

The *Waste Management Regulations* relate to the waste management licensing provisions for waste handling, transfer and disposal sites, established under Part II of the **Environmental Protection Act 1990**. Waste management licenses are issued by the Environment Agency and will only be granted to fit and proper persons. Operators of waste facilities are liable for pollution caused by the facility during operations and after closure.

Disposal Licences issued under the **Control of Pollution Act 1974** automatically became Management Licenses when the regulations were implemented.

As part of the duty of care provisions introduced under the EPA, waste producers should ensure that waste is disposed of at a properly licensed site

The 1994 Regulations have been amended by the following Statutory Instruments: The Waste Management Licensing (Amendment, etc.) Regulations, SI 1995/288; Waste Management Licensing (Amendment No 2) Regulations, SI 1995/1950; Environment Act (Consequential Amendments) Regulations SI 1996/593; Waste Management Regulations SI 1996/634; Special Waste Regulations SI 1996/972; Waste Management (Miscellaneous Provisions) Regulations SI 1997/351; Waste Management Licence (Amendments) Regulations SI 1997/2203; Waste Management Licensing (Amendment) Regulations, SI 1998/606 and **The Groundwater Regulations, SI 1998/2746** (these brought about minor amendments to schedule 4 of these regulations).

Hazardous waste Regulations SI 2005

The Special Waste Regulations, SI 2005 came into force on 15th July 2005.

These regulations revoke the Control of Pollution (Special Waste) Regulations, SI 1980/1709. and the Special Waste Regulations 1996.

The regulations were introduced into national law to implement the provisions of EC Directive 91/689/EEC and Council Decision 94/904/EC. The purpose of the 1996 Regulations is to provide a more effective system of control over special waste from the time the waste is produced to the time of its final destination for disposal or recovery (The cradle to the grave approach). The regulations also enable waste holders to comply with the statutory Duty of Care in relation to waste.

The 2005 regulations amend the UK definition of special waste to include all the wastes on the European hazardous waste list set out in Decision 94/904/EC. This list gives a six digit code for around 250 categories of special waste. A consignment note system remains but it has been amended and a charge will now be made for each consignment.

The Special Waste Regulations apply to persons who: produce; carry; receive; keep; treat (including recovery); or dispose of special waste.

A waste is special:

1) If it is any controlled waste (other than household waste) which is both:

- In the list set out in Part 1 of Schedule 2 of the Regulations and which has a six digit code assigned to it in that list
- And if the waste displays any of the properties listed in Part 2 of Schedule 2 of the Regulations (However see exceptions below)

2) If it is any other controlled waste (this includes wastes not on the above list), other than household waste, which is:

Highly flammable (H3-A)

Irritant (H4)

Harmful (H5) Toxic (H6)

Carcinogenic (H7) Corrosive (H8)

(However see exceptions below)

3) Any other controlled waste, other than household waste, which is a medicinal product as defined in S 130 of the Medicines Act 1968 or which falls within a class specified in any Order enacted under S 58 of the 1968 Act (the latter being prescription only medicines).

Exceptions

1) Household waste is generally not hazardous waste. The definition for household waste has been amended by the Special Waste (Amendment) Regulations, SI 1996/2019.

2) Any controlled waste, other than household waste, which displays any of the following hazardous properties: Irritant (H4); Harmful (H5); Toxic (H6); Carcinogenic (H7); Corrosive

(H8) will not be special waste where it does not meet any of the criteria set out in Part 3 of Schedule 2.

The Department of Environment (now DETR) issued Circular 6/96 as amended by 14/96 which attempts to help in the assessment of whether or not a waste is special.

The Producer Responsibility Obligations (Packaging Waste) Regulations, SI 1997/648

These Regulations came into force on the 6 of March 1997 and apply to England, and Wales. They enforce sections 93, 94, and 95 of the Environment Act 1995.

These Regulations also implements article 6(1) of the Directive 94/62/EC on packaging and packaging waste. These regulations have been implemented to ensure that the UK meets its recovery and recycling targets for packaging waste. These have set up a unique system in Europe that place the responsibility for the recovery and recycling of packaging waste on the producers.

Unlike the rest of EU, who mainly place responsibility on a single part of the packaging chain, the UK has placed the responsibility on all who are involved in the supply of packaging.

These regulations were implemented in stages with the first stage affecting only larger companies. They are now fully in force. These regulations only affect companies which handle 50 or more tonnes of packaging a year. The larger companies, with an annual turnover of over £5,000,000 will had to comply in the year 1997 to 1998. Companies whose annual turnover is greater than £2,000,000, have been covered since 1 January 2000.

These regulations have assigned the Environment Agency as the body to monitor and regulate the regulations. The regulations impose certain obligations on certain producers whose turnover exceeds prescribed levels and who handle certain amounts of packaging and packaging material. However a producer can pass these obligations on to a registration scheme which fulfils the obligations on the producers behalf. The purpose of such registrationemes is to reduce the burden on the producers.

Wholesalers who we schre due to be covered by these regulation by the year 2000 are now exempt due to implementation of the **Producer Responsibility Obligations (Packaging Waste)**

(Amendment) (No. 2) Regulations SI 1999/3447 and therefore have no obligation for recovery or recycling.

Wood and wooden pallets which were also due to be included in the recovery and recycling obligation by 2000, have now been removed from the Regulations by the **Producer Responsibility Obligations (Packaging Waste) (Amendment) (No. 2) Regulations SI 1999/3447**. Although it is the intention to include wooden packaging within the scope of the these regulations again by 2001, this is yet to be confirmed.

The regulation sets out six key packaging activities in the packaging chain. These are referred to as classes of producer and are as follows: manufacturer; converter; packer / filler; seller or wholesaler; secondary provider; importer. Definitions are given in the regulations

If a producer meets all of the requirements of these regulations then they have to:

- register with the environment agency for the year he is a producer of packaging waste;
- from 1998 onwards the producer will have to take reasonable steps to recover and recycle packaging waste;
- from 1998 onward the producer will have to provide a certificate of obligation.

All companies will have to calculate their packaging waste obligations. These take the form of a recovery and a recycling obligation. The obligations can be calculated using the obligation calculations in Schedule 2 of the regulations or using a computer disk provided free by the DoE.

All producers that are covered by this regulation will have to register with the Environment Agency by 31 August 1997. When you register with the Environment Agency you will be required to provide information about the amount of packaging you produce and your recovery and recycling obligations. There is a standard form for this information that can be obtained from the DoE, the Environment Agency or from Schedule 4 of the regulations.

These regulations require you to register with the Environment Agency on 1 April of every subsequent year. There is also an annual registration fee of £750.

The alternative is to register with a compliance scheme (i.e. recovery and recycling scheme). This then exempts you from your obligations under these regulations. There are organisations that offer various types of compliance schemes. These organisations are detailed in the Packaging Waste Contacts section

When a packaging waste producer is registered to a compliance scheme he is excluded from these regulations. This is only for the year the producer is registered and providing the compliance scheme meets the producer's obligations.

The regulation also excludes certain charities that fall within the meaning of section 506 of the Income and Corporation Taxes Act 1988.

Amendments - These regulations have been amended by the **Producer Responsibility Obligations (Packaging Waste) (Amendment) Regulations SI 1999/1361**. The amendment sets revised recovery and recycling targets. **The Producer Responsibility Obligations (Packaging Waste) (Amendment) (No. 2) Regulations SI 1999/3447** also amended the original regulations.

Amendments include the exclusion of wholesale operations from any obligation, an increase of the lower turnover threshold to £2 million and various changes in obligation targets.

The national recovery and recycling obligation figures for 2001 and beyond were increased and the fees for registering a scheme were set at a flat level by the **Producer Responsibility Obligations (Packaging Waste) (Amendment) (England and Wales) Regulations S12000/3375**.

Packaging (Essential Requirements) Regulations, SI 1998/1165

These regulations came into force on the 31 May 1998 and regulations concern the producers of packaging and those who place packaging on the market. These regulations are the response to Directive 94/62/EC and bring in to force the essential requirements for packaging set by the directive. These regulations affect the use and marketing of sales (primary), grouped (secondary) and transport (tertiary) packaging. The only exceptions are:

- Packaging which was used for a given product before 31 December 1994
- Packaging manufactured before 31 December 1994 which is used before 31

December 1999, assuming it met all requirements at the time it was produced.

Subject to the content of heavy metals, once these regulations are in force packaging shall not be placed on the market unless it meets certain essential requirements detailed in Annex 2. Packaging will be deemed to comply if:

- It satisfies national standards which in turn implement the relevant harmonised standards; or
- It satisfies the requirements of Directive 94/62/EC where there are no specific national standards

These regulations detail that the heavy metals, lead, cadmium, mercury and Hexavalent chromium found in packaging must not exceed the concentration targets set by directive 94/62/EC which are:

- 600 ppm by 30 of June 1998
- 250 ppm by 30 of June 1999
- 100 ppm by 30 of June 2001
-

Packaging consisting of lead crystal glass as defined in Directive 69/493/EEC is however exempt from these restriction on heavy metal contents.

The producer of any packaging must be able to provide technical documentation or other proof that the packaging being placed on the market meets all essential requirements and is within the heavy metals concentrations set by these regulations. These documents must be presented to the enforcement authority on request. All compliance documentation and information relating to packaging must be kept for **four years** from the date the packaging was placed on the market.

The body enforcing these regulations will be the **weights and measures authorities** in Great Britain. All enforcing powers are set under the Consumer Protection Act 1987.

Failure to meet the standards and targets for reducing the heavy metals content could, on prosecution at a magistrates Court, result in a fine at level 5 on the standard scale, or if at a Crown Court, an unlimited fine.

Failure to provide technical documentation may lead to a prosecution in a Magistrates Court and a fine at level 5 on the standard scale.

Section 7- Water Discharges

Acts of Parliament (includes)

Public Health Act 1936

Water Act 1945

Rivers (Prevention of Pollution) Act 195

Countryside Act 1968

Salmon and Freshwater Fisheries Act 1975

Environmental Protection Act 1990

The Land Drainage Act 1991

Water Industry Act 1991

Water Resources Act 1991

The Environment Act 1995 Water Industry Act 1999

Statutory Instruments (includes)

Environmental Protection (Prescribed Processes and Substances) Regulations, Environmental Protection (Applications, Appeals and Registers) Regulations, Bathing Waters (Classification) Regulations,

Water (Prevention of Pollution)(Code of Practice) Order,

Surface Waters (Dangerous Substances) (Classification) Regulations, Trade Effluent (Prescribed Processes and Substances) Regulations, Surface Waters (River Ecosystem) (Classification) Regulations, Nitrate Sensitive Areas Regulations,

Protection of Water Against Agricultural Nitrate Pollution (England and Wales) Regulations,

Health and Safety at Work etc. Act 1974 (Application to Environmentally Hazardous Substances) Regulations,

Surface Waters (Abstraction for Drinking Water) (Classification) Regulations, The Surface Waters (Dangerous Substances) (Classification) Regulations, Surface Water (Dangerous Substances) (Classification) Regulations, Nitrate Sensitive Areas(Amendments) Regulations

Action Programme for Nitrate Vulnerable Zones (England and Wales) Regulation, Nitrate Sensitive Areas(Amendments)(No.2) Regulations

The Groundwater Regulations Anti-Pollution Works Regulations

Water Industry Act 1991

Primarily the ten regional Water Services Companies regulate industrial discharges to sewer.

Discharges are controlled and monitored under the provisions of the **Water Industry Act 1991** and this Act consolidates the provisions of earlier Acts relating to sewer discharges and water supply.

Under the **Water Industry Act 1991** (Section 118), effluent may not be discharged to public sewer without a discharge consent. Conditions of effluent quality and quantity are attached to the consent,

and lay down the permitted constituents, their amounts, flow and other parameters such as temperature and pH of the effluents.

Limits for discharges of prescribed substances specified in the **Trade Effluents (Prescribed Processes and Substances) Regulations, SI 1989/1156** are dealt with by the Environment Agency.

Discharges not in compliance with the consents may result in criminal sanctions under Section 118 (5) of the Water Industry Act 1991. Conviction at a Magistrates Court has a maximum penalty of £20,000 whereas conviction at a Crown Court can give rise to unlimited fines.

Companies intending to make an application to discharge trade effluent should consult the Determination of Trade Effluent Consent List of prescribed substances.

There have been various amendments and additions to his part of the Act brought about by the **Water Industry Act 1999**. These include an amendment to section 61 regarding disconnection for non-payment of charges. Such powers no longer exist with regard to certain premises such as:

- Private dwellings;
- Caravans;
- Residential and children's homes;
- Prisons;
- Schools;
- Hospitals;
- Premises of the emergency services;
- Any other premises specified in Schedule 4A.

The Water Industry Act 1999 also inserted Section 63A which prohibits the use of limiting devices to enforce the payment of a bill from any of the above premises.

This act establishes a Water Industry Commissioner for Scotland who has the general function of promoting the interests of customers of water and sewage authorities.

The Commissioner replaces the Scottish Water and Sewage Customer Council established under The Local Government (Scotland) Act 1994.

The Water Resources Act 1991

This Act deals with discharges to controlled waters, which are defined in Section 104 as, inland fresh waters and coastal waters. The Act consolidates the powers of the National Rivers Authority (Now part of the Environment Agency), and replaces water pollution control provisions in the **Water Act 1989**. Issues covered include effluent discharge, water resource management, water pollution control, flood defence and water abstraction.

It is an offence under Section 85 of the Act, to cause or knowingly permit any poisonous, noxious or polluting matter, solid waste or trade sewage effluent to enter any controlled waters, except in accordance with a consent issued by the Environment Agency.

Conditions for consent to discharge to controlled waters set limits on type, concentration and total volume of pollutants that are released. They are very stringent, often requiring a high level of pre-treatment. Conditions of effluent quality and quantity may be attached to the permit. The Environment Agency suggest that it may be advisable to divert discharges to sewer, provided there is treatment capacity at the sewerage works.

The Act introduced a system of statutory Water Quality Objectives (WQO's) for all controlled waters in the UK. They specify substances required to be absent from or present in the water. The Secretary of State for the Environment must establish WQOs. It is the duty of the Secretary of State and the Environment Agency to ensure that they are achieved. As the WQO's are designed to improve water quality, operators should be prepared to meet tighter limits in the future.

A person who contravenes the provisions of the Water Resources Act, or the conditions of a consent given by the Environment Agency will be guilty of an offence.

- on summary conviction by a Magistrate to imprisonment for up to 3 months or to a fine not exceeding £20,000 or both.
- on conviction by a Crown Court, to imprisonment for a term not exceeding two years, or an unlimited fine or both.

Section 217 of the Act introduces the concept of personal liability. Where a company is guilty of an offence under the Act, and that offence is proved to have been committed with the consent or connivance of, or to be attributable to any neglect on the part of any director, manager, secretary or similar officer of the company, then he/she, as well as the company will be guilty of the offence.

Water Abstraction

In England and Wales, the Water Resources Act 1991 requires an organisation to obtain an abstraction license from the Environment Agency. This license allows the organisation to draw water supplies from a known source for its own use.

Applications and subsequent licenses cover:

- Source of supply
- Purpose of water abstraction
- Details of how the water abstraction will be measured

The Groundwater Regulations, SI 1998/2746

These regulations were published on 11 November 1998 and were fully in force by 1 April 1999. The intention of the regulations is to complete the implementation of EC Directive 80/68/EEC on the protection of groundwater by complimenting the **Waste Management Licensing Regulations, SI 1994/1056** and other existing water pollution legislation.

Accordingly, these regulations are a precautionary instrument intended to prevent certain dangerous substances causing pollution to groundwater. These substances are defined in List 1 and List 2 in the Schedule and are similar, but NOT identical to, the Black and Grey lists established by EC Water Framework Directive 76/464/EEC. The Environment Agency can now serve a notice where they consider there to be a significant risk of pollution.

From 1 January 1999 anyone who disposes of listed substances onto or into land must have applied for an authorisation, if they want to continue with that disposal. Where disposal is acceptable, The Environment Agency will authorise this with appropriate conditions. In some cases it will be necessary to refuse the application because of the risks to groundwater.

Authorisation is only required for the disposal of substances onto or into land, for example sheep dip. Where pesticide washings are sprayed back onto crops (in accordance with the label requirements) or where slurry, manure, sewage sludge or industrial waste is put onto the land for its nutrient benefit - then an authorisation is not required.

An authorisation is not required if the disposal is already covered by an IPC authorisation or a waste management license or a discharge consent under the Water Resources Act 1991. Disposal of radioactive substances is covered by the **Radioactive Substances Act 1993**.

The disposal of non-radioactive components, however, may fall under the Groundwater Regulations.

Authorisation is required for disposal of sewage effluent to ground in areas close to wells, springs and boreholes used for drinking water supply. In addition, disposals of more than 5m³/day will need authorisation regardless of location. In other cases the Environment Agency will use notices where necessary to control disposals.

These regulations do not apply to:

- Any activity already covered by a Waste Management Licence
- Discharges containing radioactive substances
- Domestic effluent from an isolated dwelling which is not connected to a sewerage system and which is situated outside any area protected for the abstraction of water for human consumption

- Any discharge which contains List 1 and List 2 substances in such small quantities that the Environment Agency consider the risk of pollution to be negligible.

Anti-Pollution Works Regulations, SI 1999/1006

These regulations came into force on 29 April 1999. They prescribe the contents of antipollution works notices served under section 161A of the **Water Resources Act 1991**. A works notice must:

- In the case of a potential pollution incident, describe the nature of the risk to controlled waters, identifying the controlled waters which may be affected and the place from which the matter in question is likely to enter those waters
- In the case of an actual pollution incident, describe the nature and extent of the pollution, identifying the controlled waters affected by it
- Specify the works or operations required to be carried out the person on whom the notice is served, stating his name and address
- Give the Agency's reasons for the serving the notice on that person and for requiring those works or operations to be carried out
- Inform the person on whom the notice is served of his right of appeal under section 161 C of the Act (including the time for appealing) and of the requirements imposed by regulation 3 in relation to its exercise
- State that the Agency is entitled (unless the notice is quashed or withdrawn) to recover from the person on whom the notice is served its costs and expenses reasonably incurred in carrying out such investigations as are mentioned in section 161(1) of the Act
- Set out the contents of 161 D(1) to (4) of the Act (consequences of not complying with a works notice)

The Control of Pollution (Applications, Appeals and Registers) Regulations, SI 1996/2971 are amended to prescribe the particulars which must be entered in pollution control registers maintained by the Environment Agency.

Provisions are made for appeals against a notice and for compensation in certain circumstances.

Discharges to Controlled Waters

As in England and Wales, discharges to controlled waters in Scotland are controlled by a system of consents and are issued by SEPA.

Any new discharge or altered process, i.e. where there is a substantial change in the nature, volume or composition of the effluent, requires the consent of SEPA, as prescribed by s.34 of the **Control of Pollution Act 1974 (COPA)**.

Under s.37 of COPA, SEPA has a statutory duty to review discharge consents from time to time, usually at intervals of not less than two years.

Sections 30F-J of COPA (inserted by s.106 of the Environment Act 1995) deal with the control of discharges to water in Scotland.

Prosecutions are not taken directly by SEPA. The facts concerning an apparent offence are reported to the Procurator Fiscal who in turn considers whether a breach of the legislation warrants determination before a Sheriff. Penalties for offences under the legislation are:

- (a) on summary conviction, a fine of up to £20,000 and/or imprisonment for a period not exceeding three months, and
- (b) on indictment, an unlimited fine and/or imprisonment for a period not exceeding two years.

Discharges to Sewers

In order to discharge trade effluent into the sewers or sewage treatment works a consent should be gained from one of three statutory water authorities as defined under the Local Government, etc (Scotland) Act 1994. Where the discharge is defined as an "existing discharge", consent is not required, although the discharger must provide similar information as required for an application for consent, when requested to do so by the local authority. An "existing discharge" is defined as one made in the two year period before 16 May 1973, including one that has changed in nature, composition, temperature, volume or rate provided that such a change was agreed before 16 May 1973 with the then sewerage authority, i.e. the County or Town Council. Where there is a dispute between the local authority and the discharger as to whether the discharge is new or existing, the sheriff will make a decision that may be appealed against to the Court of Session.

A "new discharge", which requires consent, is defined as discharge of trade effluent which:

- (a) has not previously been lawfully made into a sewer
- (b) has been substantially altered in nature or composition, or has had a significant increase in temperature, volume or rate of discharge, where the discharge is not classified as existing with a relevant agreement (see above)
- (c) has been discontinued for two years or more and is then resumed.

Two years or more after the issuing of a consent (and then at periods of at least two years) the local authority may review a consent and its conditions. The review may be carried out after less than two years as long as the applicant and the water authority agree in writing. If the occupier of the premises requests a review, the local authority is obliged under s.32 of the 1968 Act to carry one out.

Section 37A of the 1968 Act requires that the sewage authority maintain a register including information on consents and other agreements. *The Trade Effluent (Prescribed Process and Substances) Regulations, SI 1989/1156*. Detail the information that should be included in the registers including existing discharges, application notices, discharge consents and agreements as respects trade premises. The regulations also require that the registers are made available for public inspection from 30 June 1999.

Section 8 - Noise Pollution

Acts of Parliament (includes)

Control of Pollution Act 1974 - Sections 60 -74

Environmental Protection Act 1990

Noise and Statutory Nuisance Act 1993

Noise Act 1996

Statutory Instruments (includes)

SI 1984/1992 Control of Noise (Codes of Practice for Construction and Open Sites) Order

SI 1985/1968 Construction Plant and Equipment (Harmonisation of Noise Emission Standards) Regulations

SI 1987/1730 Control of Noise (Codes of Practice for Construction and Open Sites) Order

SI 1988/361 Construction Plant and Equipment (Harmonisation of Noise Emission Standards) Amendment Regulations

SI 1989/1127 Construction Plant and Equipment (Harmonisation of Noise Emission Standards) (Amendment) Regulations

SI 1989/1790 Noise at Work Regulations

SI 1992/488 Construction Plant and Equipment (Harmonisation of Noise Emission Standards) Amendment) Regulations

SI 1995/2357 Construction Plant and Equipment (Harmonisation of Noise Emission Standards) Amendment Regulations

SI 1995/2644 Statutory Nuisance (Appeals) Regulations

Control of Pollution Act 1974 Section 60 to 74

Although much of this act has now been repealed, provisions relating to noise still remain in force. In particular the Control of Pollution (COPA) 1974 still controls:

- noise from construction sites
- prior consents in respect of noise from construction sites
- restrictions on the times that loud speakers can be used in streets.
- Noise Abatement Zones
- noise from plant and machinery

In addition the Act allows for the introduction of Codes of Practice in respect of certain noise generating activities and also introduces the defence of best practicable means.

Noise is not fully defined however it does include vibration.

Environmental Protection Act 1990 Part 3 on Noise and Statutory Nuisance

The **EPA 1990** makes provision for certain states of affairs to constitute a statutory nuisance. In circumstances where a statutory nuisance occurs or is likely to occur/recur the local authority can take action to abate the nuisance. The list of statutory nuisances are contained in section 79 **EPA 1990** and include two noise nuisances as follows:

- S79 (1)(g): noise emitted from premises so as to be prejudicial to health or a nuisance; and
- S79 (1)(ga): noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery, or equipment in a street.

Section 79(1)(ga) was incorporated into the EPA by the **Noise and Statutory Nuisance Act 1993**. Noise includes vibration and the term premises includes land.

In order for noise to be a statutory nuisance under these provisions it must be either prejudicial to health or a nuisance. The Courts have developed a body of case law which determines whether a situation is likely to amount to a nuisance or be prejudicial to health.

The level above which noise is considered a nuisance will vary on a case by case basis and there is no fixed standard. Generally the courts will have regard to a variety of factors such as the location of the noise complaint, the duration of the noise, and the sensitivity of the person complaining.

Certain activities are exempt from the statutory nuisance provisions. The provisions do not apply to the following:

- Noise caused by aircraft, other than model aircraft's
- Noise caused by traffic and naval, military or air force of the Crown or by a visiting force
- A political demonstration or demonstration supporting or opposing a cause or campaign

Noise and Statutory Nuisance Act 1993

This Act, with the exception of certain provisions, came into force in January 1994 and extends the list of statutory nuisances contained in section 79 (1) of the Environmental Protection Act 1990 to include noise in streets. Specific provisions are also made for noise from loudspeakers and noise from burglar alarms (audible intruder alarms).

No provision of this Act extends to Northern Ireland.

Under the **Town and Country Planning Act 1990** any new development or change of land use requires planning permission. Conditional planning permissions can include restrictions on noise, or operations likely to cause noise.

Should an environmental impact assessment under the **Town and Country Planning (Assessment of Environmental Effects) Regulations 1988** be required, then noise effects have to be considered, and appropriate mitigating measures taken, if they are judged to have significant effect on the environment.

Law of Nuisance in Scotland

Statute law

There are significant differences between Scottish and English common law of nuisance. In Scotland, fault on the part of the persons whose land or activities are causing nuisance must be proved, and there is no distinction between public and private nuisance.

Much of the law on nuisance in Scotland originally had its basis in the Public Health (Scotland) Act 1897. This was repealed by s.107 of the Environment Act 1995, which amended those sections of the Environmental Protection Act 1990 dealing with statutory nuisance in order to extend the controls to Scotland. The Statutory Nuisance (Appeals) (Scotland) Regulations 1996 (SI 1996 No. 1076) deal with grounds for appeal against abatement notices served under the Environmental Protection Act 1990.

The other main Act dealing with nuisance in Scotland is Part III of the Control of Pollution Act 1974. Section 58 of the 1974 Act makes provision for noise, and has been repealed in England and Wales, but is still in force in Scotland.

Section 9 - Dangerous Substances

Acts of Parliament:

Environmental Protection Act 1990

The Radioactive Substances Act 1993

The Environment Act 1995

Statutory Instruments:

- SI 1982/1357 The Notification of Installations Handling Hazardous Substances Regulations
- SI 1985/1333 The Ionising Radiation Regulations
- SI 1988/819 The Collection and Disposal of Waste Regulations
- SI 1989/1156 Trade Effluents (Prescribed Processes and Substances) Regulations
- SI 1990/556 Control of Asbestos in Air Regulations
- SI 1991/836 Environmental Protection (Prescribed Processes and Substances) Regulations
- S11992/656 Planning (Hazardous Substances) Regulations
- S11992/225 Notification of Cooling Towers and Evaporative Condensers Regulations
- SI 1993/1746 Chemical Hazard Information and Packaging Regulations
- SI 1993/3031 Transfrontier Shipment of Radioactive Waste Regulations
- S11994/118 Control of Industrial Major Accident Hazards (Amendment) Regulations
- SI 1994/199 Environmental Protection (Non-Refillable Refrigerant Containers) Regulations
- SI 1994/232 Batteries and Accumulators (Containing Dangerous Substances) Regulations
- SI 1994/3247 Chemical Hazard Information and Packaging Regulations
- S11995/304 The Genetically Modified Organisms (Deliberate Release) Regulations
- SI 1996/2095 The Carriage of Dangerous Goods by Road Regulations
- SI1996/506 Environmental Protection (Controls on Substances that Deplete the Ozone Layer) Regulations,
- SI 1998/545 Environmental Protection (Control of Hexachoroethane) Regulations,
- SI 1998/767 Environmental Protection (Prescribed Processes and Substances) (Amendment) Hazardous Waste Incineration) Regulations,
- SI 1998/2885 The Carriage of Dangerous Goods (Amendment) Regulations
- SI 1998/3106 The Chemical (Hazard Information and Packaging for Supply) (Amendments) Regulations
- S11999/197 The Chemical (Hazard Information and Packaging for Supply) (Amendment) Regulations
- SI 1999/257 The Transport of Dangerous Goods (Safety Advisers) Regulations
- SI 999/303 Carriage of Dangerous Goods (Amendment) Regulations
- SI 1999/396 Environmental Protection Act 1990 (Extension of Section 140) Regulations
- SI 999/743 The Control of Major Accident Hazards Regulations
- SI 1999/981 Planning (Control of Major Accident Hazards) Regulations
- SI 1999/3244 The Environmental Protection (Controls on Injurious Substances) Regulations

- SI 1999/3165 The Chemicals (Hazard Information and Packaging for Supply) (Amendment) (No. 2) Regulations
- SI 2000/043 The Environmental Protection (Disposal of Polychlorinated Biphenyls and other Dangerous Substances) (England and Wales) Regulations 2000
- SI 2000/2831 Genetically Modified Organisms (Contained Use) Regulations
- SI 2000/2897 Dangerous Substances and Preparations (Safety) (Consolidation) and Chemicals (Hazard Information and Packaging for Supply) (Amendment) Regulations
- SI 2000/3097 Batteries and Accumulators (Containing Dangerous Substances) Amendment) Regulations
- SI 2000/3359 Environmental Protection (Disposal of Polychlorinated Biphenyls and other Dangerous Substances) (England and Wales) (Amendment) Regulations

The Notification of Installations Handling Hazardous Substances Regulations, SI 1982/1357

These regulations came into force in January 1993. The regulations specify a list of substances and quantities the presence of which have to be notified to the Health and Safety Executive (HSE).

The substances are listed under schedule 1 of regulations 2 and 3 (2) and these are included in schedule 1 of the **Planning (Hazardous Substances) Regulations, SI 1992/656**. Schedule 1 lists the hazardous substances and gives the levels above which the HSE must be notified if they are stored on as site.

Planning (Hazardous Substances) Regulations, SI 1992/656

These regulations came into force in June 1992 and implement sections of the Planning (Hazardous Substances) Act 1990. The regulations are divided into 7 parts.

Schedule 1 of the regulations lists all the substances for which a consent is required. The list contains all the substances identified in Schedule 1 of the Notification of Installations Handling Hazardous Substances Regulations SI 1982/1357 and specified other substances listed in schedule 3 of the Controls of Industrial Major Accident Hazard Regulations 1984, however the threshold levels are not the same in all cases. The following are not included:

- Controlled and radioactive waste;
- Substances found in aerosol dispensers;
- Ammonium nitrate based products complying with EC law;
- Substances in pipelines crossing land;
- For substances being transported (although this is qualified).

The regulations classify hazardous substances and sets out controlled quantities in Schedule 1. A consent must be obtained from the local authority to store quantities of a substance in excess of those listed.

Notification of Cooling Towers and Evaporative Condensers Regulations 1992

These regulations came into force on 2 November 1992 and require any person who has control of a non-domestic site on which there is a cooling tower or an evaporative condenser installed to notify the local Environmental Health Department. The notification must be made on an application form provided by the Environmental Health Department.

If there are any changes which alter the information on the application form, then the Environmental Health Department must be notified in writing within 1 month of the changes occurring.

If the cooling tower or evaporative condenser ceases to be operational or is no longer deemed a notifiable device then the Environmental Health Department must be notified in writing as soon as practicable. This does not apply if the device is shutdown for maintenance or during a seasonal shutdown..

Chemical Hazard Information and Packaging Regulations, SI 1994/3247

These regulations which came in to force in January 1995 are commonly referred to as CHIP2. They replace the **Chemical Hazard Information and Packaging Regulations, SI 1993/1746 (CHIP1)** and implement areas which were not previously covered.

These regulations place the responsibility on the supplier to classify chemicals, substances and preparations by their hazards. The classified substance or preparation is then labelled appropriately and a safety data sheet provided. The safety data sheet details potential hazards.

There is an environmental effects danger category which is used to classify substances, not preparations, when a substance will affect one or more components of the environment. This applies whether the effect is a delayed or immediate response to the substance's release. There are a few exceptions to classification and compliance with this regulation. These include Medicines and cosmetics. A full list of exceptions are included in regulation 3.

The **Chemical (Hazard Information and Packaging for Supply)(Amendment) Regulations, SI 1999/197** came into force on 1 March 1999. They amend the **Chemical Hazard Information and Packaging Regulations, SI 1994/3247** by introducing a supplement to the 4th edition of the approved supply list.

The Radioactive Substances Act 1993

This Act regulates the use of radioactive material and requires applications for authorisation to manage or dispose of radioactive waste. Under Section 6, no person is permitted to use or keep radioactive material unless they are:

- registered with the Environment Agency
- exempt from registration under Section 8 or
- registered or exempt from Section 10 covering mobile apparatus

The Act applies only to radioactive substances and does not cover electrical machines sources (such as x-rays).

The Ionising Radiation Regulations 1985

These regulations (as amended) cover the protection of persons involved in any work including instruction, involving production, processing, handling, using, holding, storing, moving, transporting or disposing of any radioactive substance, or involving a radiation generator, or which exposes a person to atmospheres containing the short-lived daughters of Radon 222 at specified concentrations. The regulations place a strict duty on employers to protect employees and others against ionising radiation arising from such work and to notify the HSE of an intention to carry out work for the first time with such radiation.

NOTE: The Health and Safety Commission also issue a Code of Practice "The Protection of Persons against Ionising Radiation arising from Work Activity".

The Control of Major Accident Hazards Regulations, SI 1999/743

These regulations came into force on 1 April 1999. The purpose of the regulations is to implement EC Directive 96/82/EC on the control of major accident hazards involving dangerous substances. They repeal and replace the **Control of Industrial Major Accident Hazards Regulations, SI 1984/1902** which were generally known as the "CIMAH" Regulations. The new regulations apply to establishments where dangerous substances are present above certain thresholds defined in Schedule 1. There is a two tier system depending on the quantities involved. Establishments where there is a dangerous substance at or above the level set out in column 2 of Part 2 must comply with part of these regulations, but where the amount is at or above the level in column 3 of Part 2, they must comply with additional requirements.

Operators at all sites covered by these regulations must take measures to prevent major accidents and limit their consequences to persons and the environment. Regulation 5 also requires that they must also establish a major accident prevention policy.

The competent authority is being set up as a partnership between the Environment Agency and the Health & Safety Executive.

Planning (Control of Major Accident Hazards) Regulations, SI 1999/981

These regulations came into force on 20 April 1999. They make detailed textual amendments to the following legislation:

- Planning (Hazardous Substances) Act 1992
- Planning (Hazardous Substances) Regulations, SI 1992/656
- Town and Country Planning (Development Plan) Regulations 1991
- Town and Country Planning (General Development Procedure) Order 1995

These amendments bring about the implementation of article 12 of Directive 96/82/EC commonly referred to as the "Seveso II" Directive. Article 12 requires Member States to ensure that the

objectives of preventing major-accidents and limiting the consequences of such accidents are taken into account in their land-use planning policies.

The major amendment to the Planning (Hazardous Substances) Regulations 1992 was the complete replacement of schedule 1. This new schedule consists of two parts:

- Part A is an amended list of hazardous substances names with the controlled quantities
- Part B lists categories for any other substances or preparations that are: toxic or very toxic; oxidising ; explosive ; highly flammable, extremely flammable or flammable; dangerous to the environment
-

The Planning (Control of Major Accident Hazards) (Scotland) Regulations came into force on 6 July 2000, implementing, in relation to town and country planning in Scotland, Article 12 of Directive 96/82/EC.

Phase Out of Ozone-depleting Substances

The Montreal Protocol on Substances that deplete the Ozone Layer and its amendments (including the Helsinki Declaration, London [1990], Copenhagen [1992] and Vienna [1995]).

Various European Regulations implement the Montreal Protocol and its amendments, one of which is EC Regulation 3093/94.

Environmental Protection (Controls on Substances that Deplete the Ozone Layer) Regulations, SI 1996/506

These regulations came into force on 29 March 1996. They make provisions with relation to EC regulation 3093/94 on substances that deplete the ozone layer. They introduce a system to control the production, supply and use of trade in, emission of certain controlled substances and give details of offences. The import of those controlled substances is prohibited unless the impact has been authorised under license. Customs officers have the power to seize illegal imports.

Environmental Protection (Controls on Injurious Substances) Regulations, SI 1999/3244

These Regulations partly implement Directive 94/60/EC amending for the fourteenth time Directive 76/769/EEC on the restriction of the marketing and use of certain dangerous substances and preparations. Regulation 3 prohibits, subject to exceptions, the placing on the market of wood treated with substances or preparations containing one or more substances listed in the Schedule to these Regulations at more than a specified concentration.

The Environmental Protection (Disposal of Polychlorinated Biphenyls and other Dangerous Substances) (England and Wales) Regulations 2000, Statutory Instrument 2000 No. 1043 These Regulations relate to Council Directive 96/59/EC ("the Directive") on the disposal of polychlorinated biphenyls and polychlorinated terphenyls ("PCBs"). They are for the purpose of implementing the provisions of the Directive which require decontamination or disposal of PCBs and

equipment containing them and the associated provisions for inventories, labelling and monitoring. They are additional to the existing relevant requirements of the waste management licensing regime under the Environmental Protection Act 1990.

Subject to exceptions, in particular for businesses concerned with decontamination and disposal of PCBs, regulation 3 prohibits the holding of certain equipment contaminated by PCBs ("contaminated equipment") by anyone other than a person registered with the Environment Agency ("the Agency") under these Regulations. This prohibition applies after 31st July 2000.

Subject to exceptions, in particular for businesses concerned with decontamination and disposal of PCBs, for transformers and for certain other equipment being replaced under major replacement programmes, regulation 4(1) prohibits the holding of PCBs and equipment containing them (whether or not within the definition of "contaminated equipment" in regulation 2). This provision applies even though a person is registered with the Agency, but applies only after 31 st December 2000.

Contaminated equipment is to be labelled as such (regulation 5) and, when decontaminated, within specified limits, is to be re-labelled in the form set out in Schedule 2 to the Regulations (regulation 4(4)(d)).

Regulation 6 provides for the procedure for registration. Applicants for registration are required to specify, amongst other things, the date by which they expect to have decontaminated or disposed of the equipment concerned. Regulation 7 provides for cancellation of the registration and regulation 8 for appeals against the non-determination of an application for registration or the cancellation of a registration.

Registered holders are required to provide information to the Agency on a regular basis (regulation 10).

The regulations came into force 4th May 2000. The Regulations have been amended by the Environmental Protection (Disposal of Polychlorinated Biphenyls and other Dangerous Substances) (England and Wales) (Amendment) Regulations SI 2000/3359 to enable those who applied for a direction under regulation 4 (Prohibition on holding irrespective of registration) before 1 January 2001, to continue to hold equipment until 31 March 2001.

Similar regulations came into force on 8th May 2000 in Scotland.

Section 10- What's New?

Directive 99/31 /EC (OJ: 1-182/11/99) on the landfill of waste

The aim of this Directive is to provide for measures, procedures and guidance to prevent or reduce as far as possible the negative effects on the environment from landfilling waste. It applies to all landfills but the following procedures are excluded from the scope of the Directive:

- The spreading of sludge, including sewage and dredging sludge on soil for the purpose of fertilisation or improvement;
- The use of suitable inert waste in redevelopment/restoration and filling-in work, or for construction purposes;
- The deposit of dredging sludge alongside small waterways from where they have been dredged out;
- The deposit of unpolluted soil or of non-hazardous inert materials resulting from the extraction of mineral resources.

Every landfill must be classified as to receive either hazardous, non-hazardous or inert waste. National legislation is required to implement this Directive by July 2001. Existing landfill sites must comply with this Directive by 2009 at the latest.

Proposal COM(98)398 (OJ: C286/6/98) for a regulation on substances which delete the ozone layer

This proposed Regulation will replace 3093/94 from the date at which it comes into force. Due to continued emissions of ozone depleting substances, it is considered necessary to implement tighter controls on the production, import, export, marketing, use, recovery, recycling and reclamation of:

- Chlorofluorocarbons (CFCs)
- Other fully halogenated chlorofluorocarbons
- Halons
- Carbon Tetrachloride
- 1,1,1-trichloroethane
- Methyl Bromide
- Hydrobromofluorocarbons
- Hydrochlorofluorocarbons (HCFCs)

Due to advances in technology, replacements for many of these substances have become available earlier than anticipated. It is thus appropriate to impose even stricter phase-out schedules than are required by the Montreal Protocol.

This Regulation will apply directly in the UK from 1 January 1999. **Proposal COM(99)67** has made amendments to this proposal, including the addition of bromochloromethane to the list of controlled substances.

Directive 99/13/EC (OJ:L85/1/99) on limitation of emissions of volatile organic compounds (VOCs) due to the use of organic solvents in certain activities and installations.

This Directive is commonly referred to as the "Solvent Directive". Its purpose is to prevent or reduce the direct and indirect effects of emissions of volatile organic compounds (VOCs) into the environment.

It will apply to the industrial activities listed below (as defined in Annex I), in so far as they are operated above the threshold bands given in Annex IIA:

Adhesive coating; Coating activity; Coil coating; Dry cleaning; Footwear manufacture; Manufacturing of coating preparations, varnishes, inks and adhesives; Manufacturing of pharmaceutical products; Printing; Rubber conversion; Surface cleaning; Vegetable oil and animal fat extraction and vegetable oil refining activities; Vehicle refinishing; Winding wire coating; Wood impregnation; Wood and plastic lamination.

Before they are put into operation, all new installations must comply with this Directive. Member States must ensure that existing installations not covered by Directive 96/61/EC on IPPC, comply by 31 October 2007.

Member States must implement this Directive by 1 April 2001.

Directive 2000/76/EC (OJ:L332/91/2000) on the incineration of waste

This Directive aims to prevent and limit the negative effects on the environment, through pollution by emissions into air, soil, surface water and ground water and the resulting risks to human health from the incineration and co-incineration of waste. This will be done through setting emission limit values for waste incineration and co-incineration plants and by meeting the requirements of Directive 75/442/EEC on waste. This Directive applies to all incineration and co-incineration plants, with the exception of plants which treat less than 50 tonnes of waste per year and are used for research, development and testing and those treating certain types of waste listed in the directive.

Directive 2000/14/EC (OJ:L162/43/2000) on noise emission in the environment by equipment for use outdoors

This Directive aims to harmonise noise emission standards, conformity assessment procedures, marking, technical documentation and the collection of data on the noise emissions of outdoor

equipment. Reducing noise levels for such equipment will protect human health as well as the environment.

This Directive is based around Decision 93/465/EEC, on conformity assessment procedures and the rules for affixing and using CE conformity markings.

This Directive applies to equipment for use outdoors (as defined under Directive 98/37/EC, relating to machinery) and only covers those that are placed on the market or put into service as an entire unit intended for use. It does not apply to equipment intended for the transport of goods or persons by road, rail, air or waterways, or that designed and constructed for police, military and emergency purposes.

Proposal COM(2000)347-1 (OJ:C365/E12/2000) for a Directive on Waste Electrical and Electronic Equipment (WEEE)

This Proposal deals with the increasingly rapid growth of waste electrical and electronic equipment (WEEE) and their impact on the environment, due to their hazardous content and 'ecological baggage'. It aims to produce a Directive which will prevent WEEE and set in place measures for the reuse, recycling and recovery of such wastes so their disposal is reduced. It also aims to improve the environmental performance of economic operators involved in the life cycle of electrical and electronic equipment and those involved in the treatment of such. This Proposal is made in accordance with the health and safety requirements of EC Directives like 91/157/EEC, on batteries and accumulators.

Directive 2000/53/EC (OJ:L269/34/2000) on end-of life vehicles

This Directive aims to prevent waste from vehicles and sets out measures for the reuse, recycling and other forms of recovery of end-of life vehicles and their components which will reduce the disposal of waste and improve the environmental performance of the economic operators involved in the life cycle of vehicles.

It is made in accordance with Directive 70/156/EEC, on the type-approval of motor vehicles and their trailers and applies to vehicles and end-of life vehicles, including their components and materials, regardless of how they have been serviced or repaired or anything equipped to them.

This Directive must be complied with by 21 April 2002 and came into force on 18 September 2000.

Regulation 2037/2000 (OJ:L244/I/200) on substances that deplete the ozone layer

This Regulation deals with controls on substances that deplete the ozone layer and apply to the production, importation, exportation, placing on the market, use, recovery, recycling, reclamation and destruction of the following substances: Chlorofluorocarbons, Fully halogenated chlorofluorocarbons, Halons, Carbon tetrachloride, 1,1,1-trichloroethane, Methyl bromide, Hydrobromofluorocarbons, hydrochlorofluorocarbons.

Its also applies to the substances listed in Annex 2 to this Regulation.

The Control of Pollution (Oil Storage) (England) Regulations 2000

These regulations will specify general requirements for the storage of oil and look likely to apply to containers holding more than 200 litres of oil (a barrel). There will be exemptions such as: road tankers, if the oil is waste within the meaning of regulation 1(3) of the Waste Management Licensing Regulations 1994, private dwellings, oil refinery, distribution to other places or farms.

"oil" means any kind of oil and includes petrol.

Storage requirements for oil are defined in general terms, for fixed tanks and for mobile bowsers

Transitional provisions - the regulations will not apply until 5 years from their introduction to the storage of oil on any premises in any container if the container was used for that purpose on those premises before the commencement date of the regulations.

If the oil container, or if there is more than one container within a secondary containment system, and any of them is less than 10 metres away from any inland freshwaters or coastal waters or 50 metres away from a well or borehole then the regulations shall apply from 2 years after commencement.

A further Proposal COM(2000)347-2 on the restriction of the use of certain hazardous substances in electrical and electronic equipment is issued in accordance with the WEEE Directive. Both Directives will uniformly apply to all electrical and electronic equipment on the EU market.

If the Environment Agency considers that there is a significant risk of pollution of controlled waters from the oil in question if steps are not immediately taken to minimise that risk then the Agency may serve notice during the transitional period to carry out such works, take such precautions or such other steps as, in the opinion of the Agency, are appropriate for minimising that risk.

Section 11 - Definitions and Acronyms

Abnormal (activities)

Not part of day to day activities, non-routine and unscheduled, and could result in uncontrolled releases to the environment (e.g. plan shutdowns for unplanned maintenance).

Accreditation

Approval by the national accreditation body (e.g. WAS in the UK) of an organization enabling it to operate an assessment and registration and/or certification scheme.

Appropriateness (of a management system)

Suitability, relevance and effectiveness

Assessment

The comparison of an organization's EMS with the requirements of a particular standard or scheme (e.g. ISO 14001 or EMAS) to determine the compliance of the system.

Assessor

A person who is qualified and is authorised to perform all or any portion of an environmental assessment.

Assurance programme

Documented procedures to ensure and demonstrate that specified performance is maintained (for example, a water discharge assurance programme will specify the monitoring needed to ensure that discharge remain within the consent limits).

Audit/assessment criteria

Policies, practices, procedures or requirements against which the auditor/assessor compares collected evidence about the subject matter.

Audit/assessment cycle

The period of time in which all the activities at a site are audited/assessed.

Audit/assessment evidence

Verifiable information, records or statements of fact.

Audit/assessment findings

The result of the evaluation of the collected audit/assessment evidence compared with the agreed audit/assessment criteria. The findings provide the basis for the audit/assessment report.

Audit/assessment team

A group of auditors/assessors or a single auditor/assessor designated to perform an audit/assessment. The team may include technical experts and trainee auditors/assessors.

Auditee

The organization (or parts of) which is being audited. Auditor

Person qualified to conduct environmental audits.

Calibration

All the operations for the purpose of determining the values of errors of a measuring instrument and if necessary, to determine other metrological properties.

Certification

The authoritative documentation of compliance with agreed requirements.

Certification body

An Impartial body, governmental or non-governmental, possessing the necessary competence and reliability to operate a certificate system.

Certification of conformance

Third party demonstration that an environmental management system is in conformity with a specific standard (or other normative document)

Certification System

A system having its own rules of procedure and management for carrying out certification of conformance.

Checklists

Documents that guide the auditor/assessor whilst conducting the audit/ assessment. The scope of checklists will reflect the objectives and scope of the audit/ assessment.

Circumstantial evidence

Proof of certain circumstances which is used as evidence to infer the proof of a fact. Good housekeeping at the time of an assessment /audit is circumstantial evidence that a waste storage area is maintained in good order on a day-to-day basis. Easy availability of specific documents is circumstantial evidence of a site's record and document control system.

Client

Organization commissioning the audit/ assessment.

Compliance

An indication or judgement that the organization meets the agreed requirements of the relevant certification.

Conclusion

Professional judgement or opinion expressed by an auditor/assessor about the subject matter of the audit/assessment, backed up by evidence gathered during the audit/assessment.

Conformity

The fulfilment of a specified requirement, the assessment of which does not depend essentially on the passage of time.

Consistency

Continued uniformity, during a period or from one period to another

Consumable materials

Materials that are consumed/utilised during the manufacturing/production process.

Continual improvement

Process of enhancing the environmental management system to achieve improvements in overall environmental performance in line with the organization's environmental policy.

NOTE: - The process need not take place in all areas of activity simultaneously (Clause 3.1 ISO 14001). Data Information or facts, used as a basis of an inference or conclusion

Deficiency

See nonconformity ,,

Discrepancy

See nonconformity Documentary evidence

Evidence derived from a written source of fact or information (such as records, log sheets, reports, letters, etc). It can be pieced together to create a "paper trail".

Emergency

Unscheduled event or incident, which has or could result in uncontrolled releases of hazardous substances to the environment, in quantities that, could cause a significant effect (e.g. rupture of fuel oil storage tank or major spillage and fire).

Environment

Surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation.

NOTE: - Surroundings in this context extend from within an organization to the global system (Clause 3.2 ISO 14001).

Environmental aspect

Element of an organization's activities, products or services that can interact with the environment (Clause 3.3 ISO 14001).

Environmental impact

Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products or services (Clause 3.4 ISO 14001).

Environmental effects/impacts evaluation

A documented evaluation of the environmental significance of the effects/impacts of the organization's activities, products and services (existing and planned).

Environmental effects/impacts records

Records environmental effects/ impacts, known or suspected, of the activities, products and services of the organization upon the environment.

Environmental guidelines

Guidelines that describe best environmental practices in managing operational areas such as wastewater discharges, air emissions and waste disposal.

Environmental management

The process of carrying out management functions (including planning) that develop, implement and maintain the environmental policy.

Environmental management system audit

A systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organization's environmental management system conforms to the environmental management system audit criteria set by the organization, and for the communication of the results of this process to management (Clause 3.6 ISO 14001).

Environmental management manual

Handbook describing overall environmental management system including reference to procedures for implementing the site's environmental management programmes

Environmental management programme

A description of the company's specific objectives and activities to ensure greater protection of the environment at a given site.

Environmental management review

The formal and regular evaluation by management of the status and adequacy of systems and procedures in relation to environmental issues, policy and regulations as well as new objectives resulting from changing circumstances.

Environmental management system

The part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy (Clause 3.5 ISO 14001).

Environmental management system audit criteria

Policies, practices, procedures or requirements, such as those covered by ISO 14001 and EMAS and, if applicable, any additional requirements against which the auditor compares collected audit evidence about the organization's environmental management system.

Environmental objective

Overall environmental goal, arising from the environmental policy, that an organization sets itself to achieve, and which is quantified when practicable (Clause 3.7 ISO 14001).

Environmental performance

Measurable results of the environmental management system, related to an organization's control of its environmental aspects, based on its environmental policy, objectives and targets (Clause 3.8 ISO 14001).

Environmental policy

Statement by the organization of its intentions and principles in relation to its overall environmental performance which provides a framework for action and for the setting of its environmental objectives and targets (Clause 3.9 ISO 14001).

Environmental programme

A description of the site's activities to ensure both greater protection of the environment and compliance with the site environmental objectives and targets.

Environmental risk

Environmental risk is used in general terms here and is regarded as a potential or actual threat to the environment arising from the activities of a business (material selection and use, manufacturing and product use and disposal) which could result in degradation of the environment. The realisation of a risk can have financial implications on the business - the worse case being closure of that business.

Environmental standards

Standards define the minimum and best environmental practices in both management system terms and technical performance. Standards for management systems include ISO 14001 and EMAS as well as the management and technical guidance provided in this document. Standards for technical performance are commonly defined by the regulations. In the absence of regulations, common technical performance standards may be adopted across all operations.

Environmental statement

Statement prepared by the company in line with the requirements of EMAS.

Environmental target

Detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives (Clause 3.10 ISO 14001).

Evaluate

To reach a conclusion as to significance, worth, effectiveness or usefulness.

Evidence

Qualitative or quantitative verifiable information, records or statements of fact, based on interviews, examination of documents, observation of activities and conditions, measurements, tests, or other means within the scope of the audit.

Examine

To look at closely and carefully for the purpose of arriving at an accurate and appropriate opinion.

Exit meeting

A meeting between the audit team and site management conducted at the end of the onsite audit process, and during which the audit team formally communicates its findings and observations noted during the audit to site management.

Failure mode effects analysis

A systematic technique for studying the effects of component failure within a system to identify where hazards can occur.

Hazard and operability study

A systematic technique which uses a series of 'parameters and guidewords' to study a system and identify ways in which hazards (or 'deviations from design intent') can occur.

Hazard

A substance, process, situation or condition with the potential to affect the environment (e.g., storage of oil on site, non-compliance with emissions limits, historical activities involving toxic chemicals)

Input/output

The release of a material to the environment (output) or the extraction/ use of a material (input) Inputs such as metals, wood and aggregate extraction are direct. Where the manufacture of a material has environmental effects/impacts the inputs are indirect.

Interested parties

Individuals or groups concerned with or affected by the environmental performance of an organization (Clause 3.11 ISO 14001).

International Standards Organization

The specialised international agency for standards' with membership of over 90 countries.

Interviewing

Questioning, both formally and informally, site personnel or other related individuals in order to obtain an understanding of the site's operations and performance.

Lead auditor/assessor (environmental)

Person qualified to manage and perform environmental audits/assessments.

Modifications

Alterations to an existing product, manufacturing process, service or procedure resulting in the generation of additional substances/items

Nonconformity

An observed situation where factual evidence indicates a failure of the specified requirements for a management system.

Note: In the context of audits/assessments, the words deficiency, discrepancy, noncompliance, nonconformance, nonconformity etc are used interchangeably to describe a situation which exists but does not comply with requirements.

Non-renewable resource

A natural resource that can not be replenished (eg. coal, oil and gas).

Normal

Day-to-day activities which are routine, highly predictable and planned and result in controlled consumption and releases to the environment (inputs and outputs).

Objectivity Freedom from bias.**Observation Physical examination**

Operational control Procedures to manage and control environmental impacts/effects and for verifying the effectiveness of controls.

Operating personnel

Site employees with line, management and operational responsibilities

Organization

Company, corporation, firm, enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration.

NOTE: - For organizations with more than one operating unit, a single operating unit may be defined as an organization (Clause 3.12 ISO 14001).

Organization and personnel

Definition of responsibilities, authority and verification resources, provision of training programmes, clear communication and reporting channels.

Physical evidence

Evidence relating to something the auditor can see and/or touch. Prevention of pollution
Use of processes, practices, materials, or products that avoid, reduce or control pollution, which may include recycling, treatment, process changes, control mechanisms, efficient use of resources and material substitution.

NOTE: - The potential benefits of prevention of pollution include the reduction of adverse environmental impacts, improved efficiency and reduced costs (Clause 3.13 ISO 14001).

Procedures

Written sets of actions describing the required response to an issue or event (for example, spill response procedures define who does what in the event of an uncontrolled release of hazardous liquids).

Protocol

Written guide for conducting and documenting each step in an environmental audit of a specific topic (for example, air pollution management, or product management).

Report forms

Used by auditors/assessors to develop and present their audit/ assessment findings.

Records of environmental effects/impacts

Quantified and dated records of the status of particular operational effects/impacts (an air emission inventory for example, will list emission sources, and characterise the emissions for a specified date or period).

Records of requirements

A list of performance levels required by corporate policy, legislation or regulations, society's expectations, or customer expectations, against which company performance can be measured.

Renewable resource

A resource which when utilised can be replenished.

Sample

A group of items or data, taken from a larger collection or population, that provides information needed for assessing a characteristic(s) of population, or which serves as a basis for action on the population.

Sampling

Selecting portion of a group of data in order to determine the accuracy or propriety or other characteristics of the whole body of data.

Block sampling

A sampling method in which certain segments of records or areas of facility are analysed. For example, if files were arranged alphabetically, all the "E's" might be selected. While this method is easy to use, it neglects entire segments of the population.

Interval sampling

The objective of interval sampling is to select samples at specific intervals (e.g. every nth segment of the population is analysed) with the first item selected at random. Increased confidence is achieved where several intervals with different random starts are used.

Judgement sampling

Sampling is directed toward segments of the population where problems are likely to exist. Judgmental sampling cannot be used to draw compliance conclusions about an entire population because it focuses on only a portion or subset of that population. Judgmental sampling can be used as a first step to provide the auditor with an indication of whether to use a probabilistic sampling technique which as random, block, stratification, or interval sampling.

Random sampling

The objective is to select items by a statistically-based chance. If properly done, each item in the population should have an equal chance of being selected, and there should be no subjective determinations to bias the sample.

Stratification sampling

The objective of stratification sampling is to arrange items by categories (e.g. high versus low effluent volumes; new versus experienced employees regular versus weekend or off-shift transactions) based on the auditor's judgement of risk. Higher risk categories then receive greater review and testing, but all categories receive some testing. (The extreme of assigning a 0% sampling frequency to some strata is what we would call judgmental, not probabilistic, sampling).

Site

All land on which the industrial activities under the control of a company at a given location are carried out, including any connected or associated storage of raw materials, byproducts, intermediate products, end products and waste material, and any equipment and infrastructure involved in the activities, whether or not fixed.

Subject matter

Specified environmental activity, event, condition, management system and/or information about these matters.

Technical expert

Person who provides specific knowledge or expertise to the audit team, but who does not participate as an auditor.

Units of performance measurement

Improvements in environmental performance are measured in two ways: Qualitative units of measurement can be used to demonstrate improvements in the environmental management system. Quantitative units of measurement such as mg/kg, kg/yr are often specified in operating consents and can be used to demonstrate improvements in operational performance. To be effective, the units of measurement should be easily measurable and meaningful and consistent between sites.

Verification activities

All inspection, test and monitoring work related to environmental management. Working papers
Used by auditors/assessors to develop and present their audit/assessment findings.

BAT	Best Available Technique
BATNEEC	Best Available Technique Not Entailing Excessive Cost
BOD	Biological Oxygen Demand
BPEO	Best Practical Environmental Option
BPM	Best Practical Means
CEN	Committee European de Normalisation
CFC	Chlorofluorocarbons
COD	Chemical Oxygen Demand
dB	Decibel (Unit of Sound Intensity)
EA	Environment Agency
EAC	European Accreditation of Certification
EC	European Community (see EU)
EEC	European Economic Community
EIA	Environmental Impact Assessment
EMA	Eco-management and Audit Regulation
EMAS	Eco-management and Audit Scheme
EMS	Environmental Management System
EPA	Environmental Protection Act, 1990
EU	European Union
FMEA	Failure Mode Effects Analysis
HAZOP	Hazard to Operability Study
IAF	International Accreditation Forum
IEMA	Institute of Environmental Management and Assessment
[PC	Integrated Pollution Control
IPPC	Integrated Pollution, Prevention and Control
IQA	Institute of Quality Assurance
ISO	International Standards organization
LA	Local Authority
LAAPC	Local Authority Air Pollution Control
LCA	Life-cycle Assessment
SAG	Sector Application Guides
SEPA	Scottish Environment Protection Agency
UKAS	United Kingdom Accreditation Service