Waste management

France's policy on waste, like its environmental policy in general, is strongly influenced by Community policy. It has progressively diversified its objectives: public hygiene, security, reduction in the environmental impact of different treatments and, more recently, prevention and recycling. These main orientations are contained in the July 15th 1975 law amended by the July 13th 1992 law on elimination of waste and recovery of materials.

Furthermore, waste treatment and elimination facilities are considered as classified installations in France, i.e. installations which may represent dangers or inconveniences for locals in terms of health, safety, public health, agriculture, protection of nature or the environment, and conservation of sites and monuments. Regulations relating to Classified Installations oblige operators to assess their waste management and to implement reduction measures so as to minimise risks associated with their facilities.

Substantial progress has been made in the quality of treatment and recycling facilities. Nevertheless, the use of landfill must be reduced still further and the production of waste has grown steadily until levelling off recently.

In autumn 2007, the Environment Grenelle was an opportunity to establish the main guidelines of a new national policy on waste management. By defining prevention and recycling objectives for waste for the period 2012-2015¹, this participative governance process has also defined 25 measures to reduce waste production, limit the quantities of waste sent to landfill and incinerated and to considerably develop recycling. These actions are perfectly in line with the priorities defined by the new waste framework directive (directive 2008/98/EC), which establishes a ranking between the different forms of waste treatment, with, by order of preference, prevention, preparation for re-use, recycling, other forms of recovery (in particular for energy), and elimination.

The Grenelle 1 Law uses this ranking specifying that the "waste reduction policy, which is a priority over all forms of treatment, will be bolstered by the eco-design of products in manufacturing, distribution and consumption until the end of its product lifecycle"². The 2009-2012 waste plan announced in September 2009 summarises the Grenelle challenges and the framework Directive organising them into strategic themes.

Management of hazardous waste

Basis of the hazardous waste management policy

In the EU, the management of hazardous waste is framed by the European Framework Directive 2008/98 on waste. This directive reaffirms in particular the principle of proximity, according to which waste must be treated as near as possible to its place of production.

¹ Increasing recycling rates from 24% in 2004 to 35% in 2012 (including composting) of household and equivalent waste and 45% in 2015, achieving a recycling rate of 75% for household packaging in 2012 compared with 60% in 2006, reducing buried and incinerated waste by 15% by 2012, channelling 75% of industrial waste from companies over 10 employees to recycling in 2012 (excluding construction, public works and agriculture) compared to 68% in 2004.

² G1 Article 46

In terms of hazardous waste treatment, priority is given to prevention and planning. There are regional plans in place which, with a long term vision, establish flows and dimensions for storage facilities. These plans account for demographic growth (waste sources with long term projections), different types of companies present in the area, different types of waste produced and the existing and potential destinations of that waste.

Hazardous waste treatment and elimination circuits are subject to a strict traceability regulation (via several record entries and a monitoring tool: the Hazardous Waste Monitoring Form, an annual register and declaration to be filled in by operators). The difficulty of such a process lies in the characterisation of the waste itself as "hazardous". Indeed, this characteristic can be defined according to 15 danger properties³ established by Directive 2008/98/EC. In an attempt to improve knowledge in this area, France is committed to European projects seeking to improve existing danger criteria (developed in connection with the CLP regulation on chemical substances and mixtures) and to revise the European waste nomenclature codes. These projects involve the preparation of European or national guides designed to be used as methodological supports to the characterisation of hazardous waste.

The MEEDDM and the Ministry of Employment have also been working together on the specific case of carcinogenic, mutagenic and repro-toxic waste. Through the National Environmental Health Plan 2 (PNSE2), they are carrying out a joint reflexion to increase efforts to identify such substances in waste by producers and thereby better protect workers who may be exposed to them in waste but also in industrial processes. This plan, which was published in July 2009, does not specifically address the management of waste, but offers a general consultation framework on the control of toxic substances which may be present in waste or used, or even emitted, by waste elimination and treatment sites. One of the objectives of PNSE2 is to identify, rank and coordinate actions to prevent impacts on man and his environment from toxic, persistent or bio-accumulative substances (PCB, dioxins, HAP, heavy metals, etc.).

Furthermore, a characterisation exercise is being carried out on waste containing socalled "Seveso" substances⁴ (named after Directive 96/82/EC concerning the control of dangers linked to major accidents involved hazardous substances called directive SEVESO II further to the catastrophe of the same name), seeking to identify facilities which handle this type of waste. According to the SEVESO II Directive thresholds, these may subsequently be required to draw up external and internal emergency plans, respect specific urban planning control measures (Prevention Plan for Technological Risks, Accesses of Public Utility), set up a Management and Safety System and provide financial guarantees.

The MEEDDM is extensively involved with the professional organisations and actors from the waste sector and representatives of producers (companies from the chemical, petrochemical, etc. sectors) in these different projects. Information on waste is therefore at the heart of France's strategy in terms of hazardous waste management. To this end, in order to meet the requirements of Directive 2008/98/EC, France has launched a hazardous waste labelling process.

³ Explosive, inflammable, comburant, irritant, noxious, toxic, carcinogenic, corrosive, infectious, reprotoxic, mutagenic, toxic gas emitting, toxic substance emitting, sensitizing (most recent category introduced by the new framework directive on waste), infectious risk, eco-toxic.

⁴ A complete list of substances causing major risks: fire, explosion, toxic dispersion.

Preventing and reducing hazardous substances as far as possible

France's policy in terms of the prevention of the production of hazardous substances is largely the result of European regulations such as RoHS (2002/95/EC) and REACH. The RoHS directive (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment) seeks to limit the use of six hazardous substances in electrical and electronic equipment. The REACH regulation seeks to restrict and prohibit the use of certain dangerous substances, as well as developing the substitution of those substances by encouraging R&D (REACH authorisation procedure).

In parallel, France has developed economic levers to encourage less polluting technologies, such as a modulation of favourable eco-contributions for LED lamps compared to other types. A malus notion on mercury lamps is also under investigation.

Beyond the reduction in waste and their level of dangerousness, the problematic of separation of hazardous and recyclable materials is the subject of different measures. The presence of hazardous waste in mixtures does indeed represent a barrier to recycling. A modulation of the eco-contribution was introduced to encourage accessibility to hazardous components in electronic and electrical equipment waste (WEEE).

Elsewhere, the introduction of a tax on waste (TGAP) is an economic tool which seeks to encourage waste producers to reduce the quantities produced.

REP channels ("Extended Responsibility of the Producer")

The application of the principle of Extended Responsibility of the Producer (REP) implicates those responsible for putting products on the market in waste management for their product, thereby offering a lever to promote eco-design. Indeed, the REP principle, by facilitating exchanges of information throughout the product lifecycle, allows us both to improve separate collection and appropriate treatment of waste thanks to a better understanding of products, and improve the design of products from a waste treatment perspective. The REP principle is being organised in France for each production channel (packaging, paper, etc.).

Eco-bodies are structures which, on behalf of industrial members, take responsibility for the end-of-product-life phase. Where applicable, they have to recover separated hazardous waste from sorting centres. Performance indicators for de-pollution are currently being studied.

Finally, France is developing an REP channel in diffuse hazardous waste (DDD) produced by households.

Regulations on waste management facilities

European Directive 2008/01/EC on *"integrated pollution prevention and control"* (IPPC) of January 15th 2008 requires that manufacturers limit their production of waste as far as possible and study the possibilities of their re-use *in situ*. More generally, the Directive specifies that certain sorting/transit/regrouping and waste treatment facilities should evaluate their impact on the environment with a view to reducing it. In France, the measure had been anticipated for installations classified for environmental protection (ICPE) in the Circular of February 19th 1992 via the *"waste"* studies. The Circular of February 19th 1992 requires that measures taken by ICPE operators seek to limit not only the quantity of waste but also its dangerousness and that operators define suitable channels for its treatment or elimination.

The IPPC Directive led to the setting up of the best available techniques (BAT) in waste treatment and elimination centres. The BREF guide or "Best References" guide, drawn up under the auspices of the European Commission, serves as a reference to inspectors of classified facilities who audit industrial sites. This policy has been applied in France through the "operating audit" tool of the IPCEs. Additional technical recommendations have also been developed for processes not covered by the European BATs, and in particular composting and methanisation.

Progressive elimination of toxic, persistent and bio-accumulative substances

A national action plan draft against the pollution of aquatic environments by micropollutants is underway. In time, it should support the substitution or withdrawal of PBT substances (Persistent, Bio-accumulative and Toxic substances) within the framework of the implementation of REACH and biocide regulations. France is also working on the preparation of proposals for substances to include in appendix XIV of the REACH regulation.

This policy is also part of an international framework: article 6 of the Stockholm Convention, on specific measures to reduce or eliminate rejects from Persistent Organic Pollutants (POPs) generated by stocks and waste, specifies that the Parties must:

- Draw up suitable strategies to identify stocks, products and articles containing (or contaminated by) POPs.
- Manage stocks in a secure, efficient and ecologically rational manner.
- Ensure that waste and articles containing (or contaminated by) POPs are managed in an ecologically rational manner.
- Develop a strategy so as to identify sites contaminated by POPs.

These provisions have been inserted into the French National framework for the implementation of the Convention, which includes the national Plan for the decontamination and elimination of equipment containing PCBs and PCTs approved by the ruling of February 26th 2003. Indeed, the Stockholm Convention and the European Regulation (directive 96/59/EC of the Council of September 16th 1996) requires the decontamination or elimination, by the latest at end of 2010, of equipment containing PCBs and PCTs with mass concentration in excess of 500 ppm. France has set up an exhaustive inventory managed by the ADEME of equipment containing more than 50 ppm of PCB. This inventory will allow a monitoring of such equipment through to final elimination through approved channels.

Inventory of hazardous waste, waste treatment/elimination sites and contaminated zones

The ruling of January 31st 2008 establishes the rules for the annual declaration of emissions and production of waste of certain installations through the GEREP database, which is used to compile the French pollutant emissions register.

Classified installations are themselves recorded in the GIDIC database.

Finally, the BASOL database is an exhaustive listing of polluted sites and soils. It is derived from the BASIAS database which contains former industrial sites which are potentially polluted.

Dissemination of technical and scientific information on the various health and environmental aspects of hazardous waste

Different national structures are involved in the dissemination of scientific information and provide technical support:

- The National Institution for the Industrial Environment and Risks (INERIS⁵) on chemical, physical and biological risks;
- The Geological and Mining Research Bureau (BRGM⁶) for example on storage centres;
- The National Institute for Research and Safety (INRS⁷) concerning risks to employees' health;
- The ADEME on the introduction and monitoring of REP channels in particular.

Public consultation

The ICPE regulation requires an impact study and prior public enquiry with the population exposed to industrial activities subject to authorisation. Measures to control urban planning and control requirements can be demanded depending on the characteristics of the facility and the vulnerability of the environment. Planning also gives rise to consultations.

Prevention of illegal international trafficking of hazardous waste

France is subject to European regulation No. 1013/2006 on cross-border transfer of waste. It is involved in exchanges and joint control actions organised by the European IMPEL TFS network.

Each year, the MEEDDM draws up a national action programme which contains priority annual actions for inspection of classified facilities. The 2009 version placed the emphasis on the issue of illegal international trafficking of hazardous waste via checks at hazardous waste production, elimination and treatment sites (verification of characteristics of import and export flows and control of documents covering such movements) and border controls.

⁵ www.ineris.fr

⁶ www.brgm.fr

⁷ www.inrs.fr

Management of solid (non-hazardous) waste and waste water

Reduction of waste

France has a waste prevention plan⁸ which has been in force since 2004. Amongst other things, the plan contains an operation to reduce unsolicited junk mail ("Stop Pub") and the number of supermarket bags handed out at the till. This prevention plan, implemented by the ADEME, includes a triennial communications campaign (TV advertising, public posters) re-launched in 2009, as well as the 'prevention week', at the end of November, which has now taken on a European dimension.

In the follow-up to the Environment Grenelle process, the prevention policy was reinforced, in particular through a 7% reduction objective in the production of household and similar waste over a period of 5 years and the introduction of specific funding from TGAP (the General Tax on Polluting Activities). For example, the ADEME is supporting the introduction of local prevention plans implemented voluntarily by local authorities.

Furthermore, modulation of the eco-contribution of companies to REP channels applies according to eco-design efforts.

Recovery, Re-use and Recycling (RRR)

In order to improve recovery, re-use and recycling of materials, French policy has been designed in line with European legislation and covers three aspects in particular:

- Requirements as to the quality of products and materials recycled (article 6 of the waste framework Directive 98/2008).
- The organisation of collection and treatment channels, and REP channels in particular, which allow a separation of flows for optimised recycling.
- The management of hazardous waste through bans on mixing (some exemptions) with other waste (article 18 of the waste framework Directive 98/2008). The 2009 Finance Law introduced an REP mechanism for diffuse hazardous waste from households (DDD).

Funding

A household waste management service is provided throughout France. This service is the responsibility of local authorities which finance it according to different rules (taxes, duties, etc.). However, certain areas, in particular those overseas which face the particular difficulties inherent with their insularity, can benefit from investment aid for their infrastructures through multi-year programming instruments (State-Region Plan, Operational Programmes). Professionals are responsible for managing their waste.

Product lifecycle analysis

The use of product lifecycle analysis for waste has already been introduced in France through policies concerning information to consumers. Law No. 2009-967 of August 3^{rd} 2009 stipulates in article 54 that:

"Consumers must be given access to sincere, objective and complete environmental

⁸ www.ecologie.gouv.fr/IMG/pdf/plan_prevention__dechet_fevrier04.pdf

information concerning the overall characteristics of the product/packaging pairing and be proposed products which respect the environment at attractive prices. France will support the recognition of these requirements at European Union level.

Mention of environmental impacts of products and services in addition to the display of their price will progressively be developed, including at Community level, just like the display and availability at the point of sale of traceability and social conditions of their production. The methodology associated with the assessment of these impacts will give rise to consultation with the professionals concerned."

Since the spring of 2008, works have been going on under the presidency of the ADEME in collaboration with the AFNOR group⁹ to develop, not only with professionals but also with civil society, environmental impact assessment methodologies for mass consumption products. The RBP X 30-323 good practice reference set "General principles for environmental labelling on mass consumption products" has been published. The document defines the principles and guidelines for the preparation of environmental information on products intended for consumption: food and hygiene products, household equipment and maintenance products, etc. but also services such as public transport, dry cleaners or indeed telephones.

The objective is to allow the consumer to integrate information on the environmental impact generated by a product throughout its product lifecycle as a criterion of choice at the time of purchase. This environmental labelling must allow comparison between products of the same category and, where appropriate, between categories of products.

The initial requirement was to display the "carbon price" or "ecological price" of products and services. However, the door is wide open to additional labelling linked to one or several more pertinent indicators per product category. Sectoral groups are indeed being set up so as to work on additional indicators. Cross-over groups have also been created, for example to look at the way labelling and communications are controlled.

⁹ http://www.afnor.org

General conclusion

With the Environment Grenelle, the French State has engaged with all actors to develop and integrate its sustainable development policy.

In terms of waste, France is following both European legislation and the demands of the Environment Grenelle. This dual pressure is leading to the implementation of innovative policies and high performance regulatory, financial and organisational instruments.