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COMMUNICATION FROM THE COMMISSION
TO THE COUNCIL AND TO PARLIAMENT

A COMMUNITY STRATEGY

FOR

WASTE MANAGEMENT

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COMMUNICATION FROM THE COMMISSION

A COMMUNITY STRATEGY FOR WASTE MANAGEMENT

I. INTRODUCTION

The problems to which waste gives rise are both specific and relatively complex: waste is not only a potential source of pollution but can also constitute "secondary" natural resources. Action required of the authorities in relation to waste therefore concerns environment policy but is relevant to other policies as well, in particular economic, technology and consumer-affairs policies.

In this context questions arise concerning preferred disposal rates and the rules governing the movements of waste as the internal market opens up. The main disposal rates are recycling, incineration and landfill. The choice of priorities will have direct economic and environmental consequences.

It follows, given the close interdependence between waste management and a wide range of industrial and commercial activities, that in the absence of a Community concept of waste management, the environment would suffer: and what is more, the completion of the internal market would be put at risk as distortions to competition, unwarranted investment shifts and even market segmentation occurred.

In these circumstances action by the European Community on waste management must be based on clear principles and guided by comprehensive medium- and long-term strategic thinking and the setting of general priorities to be translated into action in the period up to 2000.

This is the aim of this communication, which responds, in particular, to the wish expressed by the European Parliament as long ago as 1984 in the resolution it adopted in the wake of the peregrinations of the waste from the Seveso disaster (OJ No C 127 of 14 May 1984, p. 67).

A first series of measures must be linked up with those planned in the fourth environment action programme. Further action thereafter will be assessed in the light of the results of the first period.

This definition takes in all waste, whether it is to be intended for recycling and reuse or for disposal.

For the purposes of this communication, the definition of "waste" is that used in the proposals for Directives on waste and hazardous wastes now before the Council.¹ Nuclear waste is not covered; the problems peculiar to it demand a rather different approach, discussed in a recent communication to the Council.² The Commission will put up a proposal for a Directive before the end of the year.

II. BACKGROUND

It is extremely difficult, if not impossible, to estimate the quantity of waste produced in the Community, particularly because of the lack of a single nomenclature used by the Member States. In a 1987 report,^{2a} Parliament's Committee on the Environment refers to a total quantity of around 2 200 million tonnes.

1 OJ C 295, 19.11.88.

2 COM(87)312 final.

2a Document A 2-31/87.

A breakdown of waste by source shows that, on average, in the majority of the Member States 60% of household waste is dumped, 33% is incinerated and some 7% is composted, whereas over 60% of industrial waste and 95% of agricultural waste are reused. It is clear from these figures that a significant proportion of waste is simply dumped and is a wasted economic asset.

It is evident from this conclusion and the quantity of waste exported each year outside the Community (waste incinerated or dumped at sea or dumped in non-member countries) that there is a lack of disposal plants within the Community, particularly incineration plants.

The waste treatment sector, which covers the disposal, treatment, recycling and sale of waste, employed over two million people in the Community in 1982 and had an annual turnover of between ECU 100 000 and 200 000 million.³ These figures demonstrate the importance of waste management for the economy as a whole. In the United States it occupies fourth place among the economic sectors considered to be most significant in the next ten years.

The right steps at the right points in the path followed by the waste must be worked out in the light of these general considerations.

³ "La structure et l'impact socio-économique des industries de récupération et de recyclage dans les pays membres de la Communauté européenne" - October 1982 - EUROconsult.

The Commission has started work in the Eurostat framework to update the data on waste flows.

III. BASIC POLICY GUIDELINES

A. The EEC Treaty

The Treaty of Rome, as amended by the Single European Act, enshrines environment policy among the official policies of the European Community and assigns three objectives to it:

1. to preserve, protect and improve the quality of the environment;
2. to contribute towards protecting human health;
3. to ensure a prudent and rational utilization of natural resources.

More specifically, Article 130r(2) of the Treaty lays down that action by the Community relating to the environment shall be based on the principles of preventive action, rectification of environmental damage at source as a priority and the principle that the polluter should pay.

Accordingly, the European Community must first address itself to preventing waste before considering its (re)use and how it is to be ultimately disposed of. In any event, the basic principle of action by the Community must be to avoid waste and reduce its quantity and harmfulness.

The last sentence of Article 130r(2) lays down that environmental protection requirements (and hence waste management, which is involved) shall henceforth be a component of the Community's other policies.

The mutual impact of waste management policy and the internal market is indisputable.

The proposed action is based on the principle set out in Article 130r(4) of the Treaty, that the Community will act only where it is more appropriate for it to act than for the Member States to do so separately:

- because the pollution or nuisance in question may spill over national frontiers;
- or because disparities between national measures could cause distortions of competition or raise barriers to the establishment of the internal market;
- or because disparities between national measures could contribute to undesirable diversion of investments or widen the gap in the quality of life between Member States;
- or because the coordination or combination of national efforts would permit a substantial saving in overall terms.

B. The action programmes

The European Community's action programmes on the environment have already set out certain basic lines of policy for the Community to act on in relation to waste management.

The first action programme (1973-76) emphasized the need for a remedial approach at Community level to problems of waste disposal which were either on a major scale or caused distortions of competition.

The second action programme (1977-81), like the third (1982-86) placed the problem of waste in the context of action by the Community required to combat waste and to safeguard natural resources while managing them properly. These programmes outlined a policy with three aspects:

1. waste prevention;
2. waste recycling and reuse;
3. safe disposal of non-recoverable residues.

This threefold policy approach was confirmed in the fourth action programme (1987-92), which nevertheless places special emphasis on the need for "clean technology" and "clean product" measures. The desirability of "multimedia" Community action in relation to waste, with economic incentives and information campaigns as well as regulatory measures, is also emphasized.⁴

IV. FIRST STRATEGIC GUIDELINE: PREVENTION

To prevent waste is undoubtedly the first guideline of European waste management strategy.

⁴ OJ C 328, 7.12.1987.

Recent figures show that technological changes can have a positive impact on waste generation provided that genuine clean technologies are developed, rather than purification technologies, which merely shift the pollution.^{4,5}

To complete this waste reduction approach, bearing in mind that waste arises chiefly at two stages: first, when products are manufactured (industrial waste, etc.) and secondly, after they are used (domestic refuse, etc.), it is proposed that a dual preventive strategy be developed:

1. prevention by technologies,
2. prevention by products.

A. Prevention by technologies

The primary purpose of developing clean technologies is to perfect non-polluting manufacturing processes which produce little or no waste.

Such technologies usually tend to improve manufacturing processes generally.

Industries themselves are in the best position to reduce the quantity and harmfulness of wastes arising from their production processes. Generally speaking, it is for them to develop codes of practice designed to prevent waste at the process-development stage and to promote those codes by means of information and training programmes.

⁵ Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Analyse der Strukturellen Entwicklung der deutschen Wirtschaft Strukturwandel und Umweltschutz, Essen 1987.

Various measures have been taken at Community level, leading in particular to the ACE programme (Action by the Community on the Environment), with financial support to demonstration projects (Regulation No 1872/84/EEC and Regulation No 2242/87/EEC) and the setting-up of a European Information Network on environmental technologies (NETT). These initiatives must be continued:

Special care must be taken to integrate and foster clean technologies within all the Community policies, as required by Article 130r.

Action

- Proposal to the Council for the continuation and strengthening on a permanent basis of action by the Community on the environment (ACE) in the field of clean technologies.

B. Prevention by products

Waste prevention is also a matter of products. The minimizing of waste at product level must consist in taking account of the environmental impact of the entire product life cycle. It must be ensured that products placed on the market make the smallest possible contribution, by their manufacture, use or final disposal, to increasing the amount or harmfulness of waste and pollution hazards. The "clean products" campaign must bring in both the manufacturers and designers of products, and the consumers, the waste makers.

To enable consumers to play their full part, they must be informed about the ecological characteristics of products and their packaging by appropriate labelling. Ecological labelling schemes already exist in some Member States, and they are being studied in others.

In the single market context it is vital to introduce a Community framework for ecological information and parameters so that users/consumers can enjoy the benefits of products in an environmentally benign way without affecting the operation of the single market. Developing an integral concept of information on both product quality and behaviour in the environment (in use and disposal) will ensure that users/consumers play an operative role.

This integral Community approach will make for the ecologically benign use of products and will mark a stage in Community progress towards a comprehensive policy for product quality.

Public procurement is such a large sector that it can play a crucial leading role. A study will be made of the possibility of writing ecological requirements on a non-discriminatory basis into purchasing specifications. Requirements stemming from the priorities of other Community policies could be added.

Actions

- Proposal on ecological parameters for products aimed at the introduction of a Community ecological labelling scheme.

V. SECOND GUIDELINE: RECYCLING AND REUSE

Once waste has arisen, the best way of preventing or reducing any adverse impact on the environment is to recycle and/or reuse it; in other words, to bring it back into the economic cycle proper.

In compliance with environmental parameters, several criteria will influence the choice of disposal route; the waste could be recycled, or it could be finally eliminated. If there are no rules imposing one or another route, the choice will largely depend on the cost.

In the choice of the form of re-use, then, the emphasis will be on economic considerations. In a global approach these must not obscure the socio-economic and environmental results of failing to re-use or recycle the waste. Any assessment of not recycling waste, i.e. final disposal by dumping, must not be restricted to the social costs of waste, which are usually difficult to quantify exactly and vary considerably with the nature of the waste. But the costs of industrial treatment and disposal

processes and of related operations such as collection, sorting and transport - the external costs - are easily quantifiable. An overall assessment must also take into account the outlets for products obtained from recycling.

Recycling and re-use of waste can take a variety of forms including regeneration, raw materials recovery and energy conversion. The choice should be based on the aim of reducing the quantities of waste and conserving raw materials and energy.

The Commission concluded that the re-use or recycling of waste should be vigorously promoted, through:

- research and development on re-use and recycling techniques,
- optimizing collection and sorting systems (selective collections, electromechanical sorting, etc.),
- reducing the external costs of re-use and recycling,
- creating outlets for the products of re-use and recycling.

The resources and instruments for improving the re-use and recycling of waste, together with their respective merits and drawbacks, should be the subject of comparative studies at Community level.

To be fully effective, this campaign should be accompanied by incentives such as deposits on returnable items and taxes. Such measures at the right level should in no circumstances be discriminatory or out of proportion to the aim in view.

From a sectoral point of view it must be pointed out that the Community has already instituted a number of schemes for recycling waste oil, waste paper, beverage containers and used batteries. Other sectors must still be tackled. Following the Court's judgment in Case 380/87, Community action on plastic waste is an urgent necessity. Proposals to ban metal containers have already been introduced in some Member States, thus jeopardizing the free movement of goods. Community action is needed in this field too.

Actions

- Proposal to the Council for the continuation and strengthening on a permanent basis of action by the Community on the environment (ACE) in the field of waste reuse and recycling technologies
- Proposal on plastic waste.
- Proposal on metal packaging.
- Studies of instruments to improve the reuse and recycling of waste (recyclable-waste exchanges, computerized systems, data bases).

VI. THIRD GUIDELINE: OPTIMIZATION OF FINAL DISPOSAL

Wastes which cannot be re-used or recycled must - by definition - be disposed of: in principle they are dumped.

Yet waste dumping is increasingly seen to present serious problems of environmental impact and the availability of suitable sites. Consequently dumping must be relied on only as the last resort in waste management. Every possible treatment prior to dumping must be looked at, with the aim of reducing the volume of potential harmfulness of the waste. The application of physico-chemical or biological treatment processes (neutralizing, stabilizing, composting, fermenting, etc.) must be expanded.

Dumping, which at the very least will remain the final destination of residues from other waste treatment processes, needs to be subject to compliance with strict standards for:

- site selection
- site development
- site operation
- pre-treatment of the waste dumped
- type of waste accepted
- post-closure supervision.

At present the pattern of regulation in Member States is uneven and varies widely from one to another, leading to growing differences in environmental quality between them. To counter this diverging process, the harmonization of standards on the basis of a high level of environmental protection is urgently needed.

Incineration is a widely used form of waste disposal which is acceptable within strict limits. It must be subject to strict emission standards and monitoring.

The Commission has already put forward proposals on new and existing incinerators for domestic refuse, which have been adopted by the Council.^{6a} Incinerators for industrial waste are now under study in order that a proposal may be sent to the Council.

As regards the remaining methods of disposal, dumping and incineration at sea, decisions under the relevant international conventions (the Barcelona and Oslo Conventions in particular) led to the Commission putting to the Council (in 1985) a proposal for phasing out these practices.^{6b}

Actions

- Proposal to approximate the standards applicable to the dumping of wastes.
- Proposal for drawing up a list of wastes the dumping of which is prohibited or permitted subject to specific conditions.
- Proposal on incinerators for industrial waste.

^{6a} OJ No L 203, 15.7.1989, p. 50; OJ No L
^{6b} COM(85)373 final.

VII. FOURTH GUIDELINE: REGULATION OF TRANSPORT

A range of national and international provisions to guard against transport hazards are in force, as described in the Commission's final report on the transport of hazardous goods and waste.

The Commission is continuing its work in this area as announced in the report.⁷

VIII. FIFTH GUIDELINE: REMEDIAL ACTION

The growth of industrial society and inadequate waste management (or no management at all) are two major causes of ground pollution by waste. Whether caused by abandoned or unregulated tips or derelict industrial sites, this contamination is a threat not only to groundwater but also to the environment in the widest sense.

Events in the last 10 years have prompted some Member States to prepare inventories of black spots and introduce clean-up programmes. A large financial outlay is necessary for research and development on detection and clean-up techniques and for decontamination and reclamation operations.

⁷ Transport of hazardous goods and waste: final report by the Commission, COM(87)187 final.

The Community must support this R&D on techniques for site mapping and clean-up.

As regards research, the rehabilitation of abandoned sites is covered in the STEP programme 1989-92 (Science and Technology for Environmental Protection).⁸ Under the ACE programme, financial support can be given to demonstration projects on new techniques for mapping and rehabilitating contaminated sites. The Commission also made the ability to contribute to the cost of rehabilitating contaminated industrial sites in declining industrial areas one of the guidelines for the Community's regional policy.^{8a}

These efforts must be continued and intensified as the situation develops.

In order to make the "polluter pays" principle as laid down in the Single Act in Article 130r(2) fully operative, the Commission will endeavour, in the light of national measures, to identify the involvement of waste generators and to work out how they should contribute to the future rehabilitation of contaminated landfills and sites.

Pursuant to the "polluter pays" principle, the Commission has sent the Council a proposal for a Directive on civil liability in respect of waste.⁹

⁸ Contaminated sites in the EEC, 1985: B 6632, 11 September 1987.
^{8a} COM(89)287 final.

⁹

Actions

- Proposal to the Council for the continuation of action by the Community on the environment (ACE) for the rehabilitation of contaminated sites (pilot projects).
- Study of current and planned financial instruments for remedying the damage caused by wastes in abandoned landfills.

IX. IMPLEMENTATION OF COMMUNITY LEGISLATION

A fundamental guarantee of good waste management is a matter of compliance with Community directives on the subject.

In accordance with the Fourth Environment Action Programme, the Commission will continue to be vigilant over the correct application of the Directives by the Member States, including their compliance with the obligations to draw up waste disposal plans and to report on the status of waste disposal. It is not only the lawmaking by the Member States that needs to be monitored, but also the application of Community provisions at national level in practice. Such monitoring is the only guarantee that the Community rules will be fully operative in the interests of protecting the environment.

X. WASTE MANAGEMENT IN A COMMUNITY WITH NO INTERNAL FRONTIERS

Having outlined the basic principles, we must now turn to the question of waste management in the run-up to 1992 when the Community's internal frontiers will be removed.

Waste disposal will be optimized not only by choosing the best disposal systems but by careful management of the channels through which waste is supplied to these systems. Particular attention must be given to the principles governing the movement of waste within the Community and exports of waste from the Community.

The movement of waste prior to disposal

(a) Disposal within the Community

As was pointed out in Section III, waste management entails a large number of commercial transactions, whether the waste is to be finally disposed of or reclaimed. Having regard to the particular nature of the waste in question, Community law has already established a set of rules designed to ensure not only that waste is disposed of or reclaimed in an environmentally acceptable manner but also that movements of it are controlled.

Community law provides for a harmonized system in a limited number of situations. Directive 84/631/EEC on the transfrontier shipment of hazardous waste,^{9a} for example, instituted a system based on authorizations issued by the importing country. It is open to the exporting country to object, but only on the basis of an existing waste disposal plan.

^{9a} OJ No L 326, 13.12.1984, p. 31.

Directive 75/439/EEC^{9b} on the disposal of waste oils lays down that each Member State shall approve establishments disposing of waste oils, and the Court of Justice has accepted that a person holding waste oils in one Member State may send them for disposal to an approved establishment in another Member State. Directive 86/278/EEC^{9c} on the use of sewage sludge permits it to be exported thereof from one Member State to another provided that the material fulfills Community standards.

Apart from the specific provisions, Community law on waste lays down a number of principles. Since these principles are very broad, their application and interpretation leave Member States a great deal of latitude. They must be applied by the Member States of course, in accordance with the provisions of the Treaty and the decisions of the Court of Justice.

The result has been, despite the fact that there is Community law on the subject, divergent development in the rules governing waste management in the Member States.

In these circumstances a trend has emerged for waste to be moved for final disposal in lower-cost facilities.

The cost of waste disposal is directly dependent on the standards and regulations governing the construction and operation of the facility, but also on the type of facility used and on a large number of external factors such as the cost of land and social costs.

^{9b} OJ No L 194, 25.7.1975, p. 23.

^{9c} OJ No L 181, 4.7.86, p. 6.

Amortization of waste disposal plants is directly proportional to the volume of waste handled and therefore to the flow of waste to them. Since there are at present big differences between technical regulations relating to waste disposal plants - or even no specific regulations - there is a real risk that in a Community without internal frontiers the flow of waste towards lower-cost disposal plants may become a flood. The areas where they are sited might become particularly vulnerable from the environmental point of view. It is therefore apparent that harmonization of technical standards for waste disposal plants is a basic priority for environmental protection; and it must be harmonization based on a high level of protection. Note, however, that the approximation of standards described in Part VI will not lead to uniformity of prices.

The cost of waste disposal also depends, of course, on external constraints such as the cost of land, social costs and on the type of installation compatible with the site: incinerator, landfill or whatever other kind of treatment facility.

For example, some Member States now find it impossible to approve further expansion of landfill sites and have to use incineration, which necessitates more expensive installations. It follows that although harmonization of technical standards may help to reduce the movement of waste, it will not prevent it altogether.

This background does not provide any incentive to make further advances in, for example, the field of clean technologies, recycling or waste treatment. In particular it is likely in the medium term that movements of waste will involve a shift of investment in facilities for final disposal to certain regions, leaving others under-equipped.

In addition, as a result of recent events in several Member States, it is likely that the public will refuse more and more vehemently to accept waste from other areas. There is a danger that such a situation will place under-equipped regions in an extremely critical position.

To cope with these eventualities affecting waste management in the future Community without internal frontiers, a policy for the final disposal and recycling of waste must be based on principles which safeguard the environment without the measures implementing those principles being discriminatory or arbitrarily affecting the rules of free competition.

In other words the need to protect the environment may lead to a restriction of movements, for the movement of waste within the framework of the internal market, or even within a region or a Member State, must be controlled movement compatible with a high level of protection.

In view of these ecological, economic and socio-political considerations, a network of facilities for the final disposal of waste needs to develop so that the whole operation (collection, transport and disposal) does not create a regional imbalance, within the Community framework, leaving certain areas under-equipped.

The Commission thinks that in order to do this, provision must be made to ensure that as far as possible waste is disposed of in the nearest suitable centres, making use of the most appropriate technologies to guarantee a high level of protection for the environment and public health.

The implementation of such a principle clearly must not lead to a monopoly situation.

Here "the nearest" does not necessarily, in every case, mean close-by. To achieve the best possible distribution of installations, account must be taken of requirements and capacities for treatment. The distribution of plants for the reception of domestic refuse, for example, cannot be the same as for installations for disposing of halogenic chemical waste.

There will thus be a real need to monitor waste at Community level. To this end, the Commission will be making a proposal concerning the movement of waste to replace the Directives introducing controls on the transfrontier shipment of waste. Existing Directives already contain the germ of such a system, making provision for a system of backup and monitoring of waste and the framing of waste disposal plans by the competent authorities. The Commission, in conjunction with the Member States, will coordinate the implementation and backup for these plans wherever necessary.

The situation is different with waste to be recycled by the recipient. The holder must pay for the final disposal of waste. Where waste is for recycling, the holder of the waste is paid by the recycler.

This makes waste for recycling part of a productive economic cycle, and operators must have access to those firms which can recycle most efficiently, subject to market requirements. It goes without saying that under no circumstances must this efficiency endanger the environment or human health. Nor must operators be allowed to divert waste from the recycling for which it is intended. In order to promote recycling, one of the Community's priorities in this field, the principles of free competition must operate provided that movements of waste are monitored and effected on the basis of a recycling contract binding the waste holder and the recycler; and both must be recognized and approved. For waste of this type, exceptions may be made under these circumstances to the principle whereby waste must be disposed of at the site closest to the place where it is produced.

(b) Waste disposal outside the Community

In its Resolution of 21 December 1988¹⁰ the Council adopted guidelines on transfrontier movements of hazardous waste to third countries.

¹⁰ OJ No. C 9, 12.1.1989, p. 1.

Because of the shortage of disposal capacity, but also because of the introduction of more stringent control measures and rules on disposal within the Community, many holders of waste were exporting it outside the Community. Unfortunately, although some of the countries receiving the waste had adequate disposal facilities, some had no facilities at all.

Directive 84/631/EEC on the transfrontier shipment of hazardous wastes,¹¹ as amended by Directive 86/279/EEC,¹² introduced a control system applying to all exports of hazardous waste to non-member states. The recent international convention on the transfrontier shipment of hazardous waste, signed in Basle on 22 March 1989, provides a framework for world-wide control. The signatories include the Community and some of its Member States. The existing Directives on the transfrontier shipment of hazardous waste should be reviewed in the light of this Convention.

In the specific context of the preferential relationship between the ACP countries and the Community, and in the spirit of solidarity which is a feature of the Lomé Convention, the Community has made known that it intends to take a favourable view of the request made by the ACP countries that a ban should be placed on exports of waste from the Community to their countries, subject to certain conditions which will be examined during the negotiations which are now taking place. Any such ban would have to be combined with a ban on ACP countries importing such waste, whatever the source.

¹¹ OJ No L 326, 13.12.84, p. 31.

¹² OJ No L 181, 4.7.86, p. 13.

However, it would have to be provision for exceptions, at the request of an ACP country which did have proper facilities for recycling or disposing of the waste.

Regardless of special agreements with ACP countries, the Commission will continue to provide active technological or administrative assistance for any country in the form of technical information on:

- (i) training of specialists;
- (ii) setting the technical standards required for waste treatment plants;
- (iii) assessing the impact of waste shipments before authorizing their admission;
- (iv) checking that transport and treatment are conducted correctly;
- (v) setting up a continuous monitoring system.

Ideally this kind of cooperation should take place as far as possible on a world-wide basis. For the moment, however, waste arising within the Community which cannot be recycled should be treated within the Community where possible and exported only in exceptional circumstances.

Action

Proposal on movements of waste to replace the Directives introducing controls on the transfrontier shipment of hazardous waste.