COMMISSION OF THE EUROPEAN COMMUNITIES

COM(79) 144 final

Brussels, 22 March 1979

# COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

COUNCIL MEETING OF 9 APRIL 1979 :

GENERAL EXCHANGE OF VIEWS ON THE TIGHTENING UP OF THE COMMUNITY'S ENVIRONMENTAL POLICY :

- ENVIRONMENTAL IMPACT ASSESSMENT WITHIN THE EUROPEAN COMMUNITY;
- EUROPEAN CONVENTIONS ON THE QUALITY OF LIFE;
- CLEAN TECHNOLOGIES;
- WASTE MANAGEMENT POLICY.

# Communication from the Commission to the Council

- Subject: Council Meeting of 9 April 1979; general exchange of views on the tightening up of the Community's environmental policy; environmental impact assessment within the European Community.
- 1. During its meeting of 18 December 1978, the Council (of Ministers with special responsibility for environmental policy) held an initial exchange of views on environmental impact assessments as a major component of a preventive policy on the environment. Having confirmed the increasing importance which will no doubt be assigned to this information and forecasting tool the Council agreed to continue the general discussion on the matter at its next meeting.

This memorandum sets out certain basic considerations which, in the Commission's opinion, could help in introducing the discussion.

- 2. It should first of all be remembered that many principles of the European Community's environment policy stress the need for prevention<sup>1</sup>:
  - "-The best environment policy consists in preventing the creation of pollution or nuisances at source, rather than subsequently trying to counteract their effects".
  - "-The effects on the environment of all the technical planning and decision-making processes should be taken into account at the earliest possible stage. It is therefore necessary to evaluate the effects on the quality of life and on the natural environment of any measure that is adopted or contemplated at national or Community level and is liable to affect these factors."

In addition one of the aims of the Community environmental policy adopted by the Council is "to ensure that more account is taken of environmental aspects in structural planning and regional development".

<sup>1</sup>Cf. Title I of the European Community Action Programme on the Environment - OJ C 139 of 13 June 1977.

3. The studies conducted by the Commission showed that in all of the Member States there are, and in some cases have been for a long time, laws, regulations and administrative provisions relating, <u>inter alia</u>, to the granting of authorizations for certain activities or to the drawing up of regional development plans which enable the effects on the environment of a given activity to be taken into account to some extent.

In addition, a number of Member States have already incorporated into their legislation, or have examined, specific provisions concerning the systematic assessment of the effects on the environment of certain plans and projects. Consequently, French law and Irish law have introduced an obligation to carry out "impact studies" before certain types of works are authorized. In the Federal Republic of Germany a Ministerial decision has made Federal measures, programmes and laws subject to an examination of environmental compatibility. Studies have been carried out or legislative action is contemplated in other Member States (United Kingdom, Netherlands, Belgium).

4. In view of the situation described under Section 3 above the introduction of an impact assessment (or study) procedure ought to draw as far as possible upon existing procedures and administrative structures. However, where appropriate such procedures, which are often restricted to a specific field of activity or aspect of the environment, should gradually be strengthened and adapted in order to provide the "decision-makers" with a detailed overall view of the possible effects on the environment (as regards the natural heritage and habitat) of a large-scale activity or civil-engineering project.

Impact assessments should supplement the supervisory procedures in force in the Member States, thereby simplifying them and increasing their preventive powers, but in no way replace existing supervisory machinery. A relevant example is offered by French legislation, whereby the system of "classified installations" has been usefully backed up by impact assessment procedures.

~ 2 m

"The procedures expanded in this way would constitute an advantage not only for the competent authorities, who would obtain a better overall view of the projects and be better equipped to take a decision, but also for industry by simplifying its administrative procedures."<sup>1</sup>

This must also apply to the choice of the competent authorities responsible for implementing environmental impact procedures, who ought as far as possible to form part of existing administrative structures.

## Special Considerations

1. Scope

The potential scope of environmental impact assessments is very broad. In theory all activities likely to have a significant impact on the environment could be subjected to them in the longer termi.e. by: civil-engineering works, demographic plans, economic plans, new products, new technologies, legislative measures, etc.

Two approaches are possible.

The first is that the impact of activities on the environment must from the outset be taken into account at all levels of the decision-making process and in particular as "upstream" The advocates of this approach feel that as possible. "impact on the environment must be examined by the public authorities when decisions are taken on regional planning and large-scale infrastructure projects, thus creating an overall framework for all subsequent projects." "Many difficulties which one seeks to overcome by imposing various procedures will be solved purely by means of a long-term planning by the public authorities which determines which areas (zoned) shall be used for what human activities, particularly those reserved specifically for industry and those where industry can settle under certain conditions."<sup>1</sup>

<sup>1</sup>Cf. UNICE Memorandum on Environmental Impact Assessment of 26 September 1978 (R/3596/78) (ENV.220).

#### - 3 -

A second approach aimed at avoiding (a) needless disruption of procedures and structures and (b) cumbersome administrative procedures and unwarranted costs which could bring this tool into disrepute involves proceeding gradually, and to some extent experimentally, with the introduction of impact assessment procedures and to concentrate one's efforts at first on a limited area, such as certain large-scale civil engineering works.

Whatever the solution adopted it is clear that the procedure must only apply to activities whose extent or particular characteristics mean they are likely to have a significant impact on the environment and that it must continue to be a management tool among the others used in the decision-making processes by the public authorities.

## 2. Participation by the public

The public already participates in the procedures existing in all of the Member States.

Correct information of the public can help to avoid controversy and purely emotional reactions. Consultation of the public also enables a better insight to be gained into the views of those directly concerned on the precise impact of the works in question on their living conditions and a better assessment to be made of the merits of the various alternatives proposed.

Participation by the public therefore helps to forge the impact assessment procedure into an intelligent system to aid decision-making by the competent authorities.

# 3. Content of the impact study

This must enable:

- "-the areas and components of the environment likely to be affected to be identified via analysis of the situation existing before plans are put into effect,
- -the effects of such activities on the environment to be foreseen,
- -the reasons for the choice selected from among the various possible solutions to be advanced,
- -the measures contemplated for eliminating, reducing or compensating the adverse effects of the project on the environment to be explained in detail."<sup>1</sup>

- 4 -

<sup>&</sup>lt;sup>1</sup>Cf. Declaration by the French Minister for the Environment and Quality of Life before the Council on 30 May 1978 - Doc. R/1450/78(ENV 82) of 19 June 1978.

Impact assessments thus offer various advantages apart from those arising for the public authorities out of a more profound knowledge of the prime impact of various works and plans. In the long term the association of the various specialized authorities responsible for environmental matters in the assessment process enables the assessment methods to play a part in authorization procedures and in rationalizing the decision-making process. These two functions, coupled with participation of the public, can help to ease cumbersome administrative procedures, defuse controversies on environmental matters and reduce the total amount of time needed for action and finally to improve the general climate of investment.

≈ 5 =

## Communication from the Commission to the Council

<u>Subject</u> : Council meeting of 9 April 1979 : exchange of views on the furtherance of Community environment policy : European Conventions on the quality of life

In a declaration made at the Council meeting of 30 May 1978,<sup>(1)</sup>the French Minister for the Environment and the Quality of Life, Mr. d'Ornano, proposed that the Community sign joint European agreements with manufacturers on the quality of life. These "would be concerted and aid-backed programmes for the phased reduction of pollution discharges".

These conventions could be formulated according to the following plan :

- "a) Register of the factories in the branch and of the problems arising, taking account of the efforts already made;
- b) Inventory of available techniques which could provide satisfactory solutions, taking account of both purification techniques and waste-free technologies;
- c) Report on the existing situation and assessment of any actionwhich should reasonably be undertaken and of corresponding additional costs;

.../...

(1) Doc. R/1450/78 (ENV 82) of 19 June 1978.

- d) Preparation of a financing plan, taking into account the financial capacity of the branch concerned, and search for the additional funds required;
- e) Drawing up of a timetable for the operations to be carried out;
- f) Setting up of a system ensuring that the operations are followed up."

Points a) and b) in combination will make it possible to assess the situation and to propose a plan of action.

A framework convention would be drafted on the basis of the guidelines of this plan of action. It would lay down precise objectives to be attained within specific time limits; manufacturers could then, especially as regards the target purification levels, be offered options with corresponding possibilities for graduated financial aid. The scope should also be specified, particularly as regards the exclusion of new factories.

This framework convention should be approved by the Council and could be signed by the Commission and trade associations.

Each manufacturer would then be able to sign with the Commission an agreement under private law observing the rules laid down by the framework convention but adapted to his specific type of factory.

The Member States should maintain the possibility of imposing on their nationals stricter rules than those laid down in the standard convention if required by local circumstances.

.../...

On average, one agreement should be signed per year extending over three to four years according to the size of the investment to be made."(1)

It should be pointed out that this suggestion supplements and augments "the action specific to certain sectors of industry" mentioned the Programme of environmental action of the European Communities approved by the Council on 22 November  $1973_{,}^{(2)}$  action which is also included in the second programme (1977 - 1981) approved by the Council on 17 May  $1977_{,}^{(3)}$ 

The programme states in fact that it is appropriate :

- "- to endeavour to work out technical or other measures which could reduce, eliminate or prevent the pollutant emissions or nuisances stemming from each of the polluting industries (the worst polluting branches number about fifteen);
- to study ways and means of implementing these measures, particularly as regards their phasing, account being taken of the existing situations, the state of the art and the economic, financial and social consequences of the measures planned;
- where necessary, to put in hand, at Community level such measures as the execution or financing of research and/or development work which is of general interest, financial aid awards of Community development contracts, the conclusion of agreements on know-how, patents, licences, etc."

.../...

- (1) Doc. R/1450/78 (ENV 82) of 19 June 1978.
- (2) Declaration of the Council of the European Communities and the representatives of the Governments of the Member States meeting in the Council of 22 November 1973 on the programme of action of the European Communities on the environment (OJ C 112 of 20.12.1973).
- (3) Resolution of the Council of 17 May 1977 on the continuation and implementation of a European Community policy and action programme on the environment (OJ C 139 of 13 June 1977).

Without prejudice to the application of Articles 92 et seq. of the Treaty establishing the European Economic Community on aids granted by States and kept under constant review by the Commission, any aids will be harmonized and a review will be made of the possibility of harmonizing the principles or systems of other measures on environmental matters relating to specific branches of industry.

It will be noted that the action programme clearly states that the measures in question should not affect the fixing of quality objectives and standards by the Community or the Member States and that any financial aid granted must be compatible with the application of Articles 92 et seq. of the Treaty and with the Commission Communication to the Member States on a Community Approach to State Aids in Environmental Matters (SEC(74)-4264). It must be clear that these conventions cannot replace rules to combat pollution when these are necessary but they can help to implement them by establishing where and when they are to apply and in some cases by attempting to implement specific measures (such as using new techniques or granting aid) and where necessary add to them by working on aspects other than the fight against pollution such as energy saving, the conservation of raw materials and working conditions.

The action programme also lists a number of branches of industry which might be candidates for specific action of this kind.

The Council might, without affecting the fixing of threshold values by the Community or the Member States, decide to ask the Commission to cooperate with the industries concerned in undertaking the work referred to in the plan proposed by Mr. d'Ornano for the following branches of industry:

4.

- the asbestos industry,
- industries producing and using fluorocarbons,
- certain industries (still to be specified) in the agri-food sector.

.

ċ

÷

# COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

# <u>Subject</u> : Council meeting of 9 April 1979 : general exchange of views on the further progress of the Community's environmental policy : <u>clean technologies</u>.

One of the objects of environment policy should be to encourage producers to make the most efficient use of raw materials and energy and to reduce polluting effluents discharged into the environment and the quantities of waste generated both in the manufacture and in the use of products.

Clean technologies directly serve this aim.

## I. THE CONCEPT

The concept of "clean technologies" covers three distinct but complementary purposes :

- (i) less pollution, that is, less effluent discharged into the natural environment (water, air and earth);
- (ii) less waste : this is why reference is often made to "low-waste or non-waste technologies";
- (iii) less demand on natural resources (water, energy and raw materials).

The term "clean technologies" primarily calls to mind the non-pollution aspect. It may be preferable to use the more common term "soft technologies".

There are certain links between clean technologies and standards. It is true that clean technologies cannot replace standards; but they can help to ensure that standards are applied. Their development could also be part of sectoral agreements.

- 2. For a manufacturing process which consumes energy and raw materials and generates both pollution and waste, the undertakings may adopt one of two approaches :
  - (a) they may consider that the generation of pollutants and/or waste
     is a necessary consequence of the industrial activity, and so they
     may add to their production plant external equipment for the destruction of these materials after they have been produced; or
  - (b) they may take action at the stage where effluents and waste are produced in order to prevent them entirely or reduce their volume or replace them by less harmful by-products.

The role of clean technologies is therefore both quantitative, to reduce the amount of waste and pollution and economize on resources, and qualitative, to change the nature of the waste and pollution generated.

3. Clean technologies can be introduced in both the design and the operation of the production process :

It may be possible to modify the production process in order to economize resources and cut down waste and effluents, or even eliminate them altogether. An example is offered by certain paper pulp manufacturing processes.

Another approach is to utilize waste or effluent in a complementary production activity. For instance, fly ash from power stations can be used to manufacture cement, and whey can be recovered and used in cheese factories for the manufacture of animal feedingstuffs or foodstuffs for human consumption.

## II. THE FRAMEWORK

To ensure that clean technologies are introduced with the utmost efficacy, action may have to be taken in a wider framework than that of the design and operation of the manufacturing process. Action may be called for in the following areas :

~ 2 ~

- Product design : to ensure, for instance, correct selection of the raw materials and secondary raw materials required and consumption of as little energy and raw material as possible in manufacturing and, in the use of the product to ensure the longest possible useful life and to facilitate recovery and recycling after use.
- The design and juxtaposition of factories, in order to facilitate the use by one factory of the waste or the energy produced by another factory.
- 3. Organization : a series of measures concerning factory organization, particularly the sequence of production operations, may substantially improve the efficacy of the clean technologies used; examples are improvements at specific points in the production chain, and more rigorous control at certain points in the manufacturing process.

The introduction of clean technologies can also usefully include the design and operation of waste exchanges to allow the waste from one industry to be converted into raw materials for use by the same sector or by other production sectors.

Quite apart from the advantages they offer in the reduction of pollution and waste and the conservation of resources, clean technologies may be a source of innovation. They can open the way for an industrial breakthrough in the sectors concerned, the development of new industries and, in some cases, improved productivity.

#### III. THE MEANS FOR DEVELOPING CLEAN TECHNOLOGIES

While the brunt of the effort must be borne by the companies themselves, the public authorities must also be able to promote the design and use of clean technologies by providing a framework of supporting measures, in the following areas :

- 3 -

- (a) research and development
- (b) the exchange of scientific and technical information
- (c) incentives to industrial cooperation such as waste exchanges, transfer of techniques between industries (patents, licences and know-how)
- (d) the promotion of certain industrial adaptations by means of community or national assistance for the development of clean technologies in sectors , selected on the basis of criteria such as :
  - (i) the economic situation of the sector in the light of competition
  - (ii) impact on employment
  - (iii) the pollution generation or resource hunger of the sector
  - (iv) the innovatory nature of the technologies.

It is also clear that emission standards and charges for generating pollution or waste are incentives to the development of clean technologies. The Council's opinion on these definitions and the means advocated would be a valuable guide.

As a first step, the Commission, in conjunction with the national authorities and representatives of industry could make a survey of the sectors primarily concerned, which could then be used to determine the types of measure needed to develop clean technologies and the levels at which they should be introduced.

# Communication from the Commission to the Council

- <u>Subject</u> : Council meeting of 9 April 1979 : general exchange of views on furtherance of Community environment policy : <u>waste manage-</u> <u>ment policy</u>.
- Waste management policy, both in the Member States and at Community level (1), attempts to achieve two complementary goals at once. These are :
  - more effective protection of the environment by reducing and, where possible, preventing waste and the nuisances which can result from its disposal, and
  - the conservation and more efficient use of raw materials and the energy which they provide.
- 2. Generally speaking, <u>the steps taken</u> come under three heads : - alteration and reduction of the flow of waste;
  - increased exploitation of waste (re-use of products and recycling or further use of materials);
  - environmentally and economically satisfactory disposal of non-recoverable or non-recovered waste.

It has also been observed that attention is paid increasingly to preventing the occurrence of waste (clean technologies) and that the desire to save energy is playing a greater role in determining which measures should be taken.

3. At present the Community produces approximately 1.800 million tonnes per annum (t.p.a.) of all kinds of waste, or roughly 5 million tonnes per day.

This figure includes, in particular, 950 million tonnes of agricultural, 350 million tonnes of industrial and 90 million of urban waste (2).

The total value of non-recovered substances produced every year in the EEC probably exceeds 10.000 million EUA. If these substances could be recycled, import savings amounting to between 5.000 and 7.000 million EUA could be made.

- (1) Action programme of the European Communities on the Environment of 17 May 1977 (OJ N° C 139 of 13 June 1977) and Council Directive of 15 July 1975 on waste (OJ N° L 194 of 25 July 1975).
- (2) For more details see R/2866/78 (ENV. 189) or COM(78)601 which was submitted to the Council on 18 December 1978.

4. Considerations of time and se determine the nature of the measures employed. Various factorie involved such as the type of waste, the economic organization of Member states, the location and concentration of industry, rendence on countries abroad for certain imports, the existence of recurry channels and of markets for the materials recovered, etc.

The measures inclusion regulations, tax measures, contracts, cooperation agreements, etc. They are designed to encourage, compensate or support, various courses f action.

They involve n particular :

- the pregnation and application of legislation and regulations:
- setting up supporting administrative instruments at different levels, whethe national, regional or local (e.g. the National Agency for the Receivery and Elimination of Waste in France - Agence Nationale pour la /écupération et l'Elimination des Déchets, or the Waste Management Ageisory Committee in the United Kingdom);
- Me implementation of national or regional plans for collecting, treating and eliminating waste;
- research with a view to encouraging recycling (how to tackle, for instance, the problem of adhesives and inks present in waste paper which is used for paper production);
- making the public aware of recycled products and training management staff with specific responsibility for waste, as is done in certain factories in Germany;
- systematic and structured cooperation between users, manufacturers, recovery operators and public authorities;
- sectoral contracts between interested firms and public authorities to ensure a supply constant in price, quantity and quality:
- drawing up specifications related to the use of the product (e.g. in making of paper);
- introducing various financial instruments :
  - a) subsidies (or payments, or indemnities) for
    - . systematic collection, and
    - . pilot processing plants
  - b) charges on new products (e.g. tyres, packaging, lubricants).
- 5. The Council could then review these points and weigh their importance. It could then concentrate on a few specific sectors and examine for each in turn the solutions which best take the interest of society as a whole into account.

The Council's review might cover four important categories of waste, namely : waste paper, waste oil; beverage packaging and old tyres. It is really the public authorities who are responsibles either directly or indirectly, for the disposal of urban waste. Furthermore, the recovery, further use and recycling of this waste can make a substantial contribution to the conservation of resources and energy and to protecting the environment :

- Packaging now accounts for roughly 30% by weight of urban waste. The manufacture of packaging demands considerable expenditure of energy and raw materials. Packaging also contributes to litter and to air and water pollution. Beverage containers account for roughly 10% by weight of urban waste (non-returnable bottles, tins and plastic containers).
- Waste paper represents 15 20 % of the total tonnage of urban waste, or 15 17 million tonnes per annum, and between 40 and 50 % by volume. The European Communities depend on imports for 50% of their paper and wood fibre. The deficit in wood and its derivatives is 8.000 million EUA second only to petroleum products. At the moment 9 10 million tonnes of waste paper is used in the manufacture of paper and board, which is one-third of the Community's consumption of paper products (30 million tonnes). Using waste paper instead of virgin pulp would save energy and reduce pollution. However, there are certain limits to the use of waste paper in the production of paper and board, limits which are both economic (connected with the price of virgin pulp) and technical (in particular the amount of recycled waste paper which can be included in certain finished products). Further uses should therefore be found for certain categories of waste paper.
- Waste oil : the total consumption of lubricants in the Community amounts to roughly 4 million t.p.a. and waste oil to 2 million t.p.a. of which slightly more than 1 million is collected. Uncontrolled disposal of waste oil therefore accounts for approximately 50%.

A Community Directive of 16 June 1975 (1) lays down rules for the recovery of these oils and provides for their disposal, if possible, by recycling(reclamation and or burning other than for destruction).

Member States have generally opted for one or other of these solutions. It would be beneficial for the Council to compare the measures adopted by certain states which enable them to achieve a very high percentage of recovery. It would also be relevant to examine the comparative advantages of reclamation and burning with energy recovery in relation to the resource and pollution balance.

(1) OJ Nº L194 of 25 July 1975.

Old tyres account for approximately 1.8 million t.p.a. of waste only 800 000 tonnes are re-used (retreading; public works and buildings; some exported). Approximately 1 million t.p.a. is disposed of (i.e. dumped or incinerated). It seems appropriate to examine this category of waste from the point of view of the cost of imported raw materials such as rubber and oil, of the pollution caused by the production of tyres and of the problems arising from the disposal of the waste.

The Council could examine the methods and techniques to be used for each sector and the measures required to promote the more rational use of these resources. A note on each of these four types of waste is annexed for this purpose.

# ANNEX I

# RECOVERY OF WASTE PAPER

## I. DEFINITION OF THE PROBLEM

- 1. At present waste paper represents roughly 40 to 50% by volume and 15 to 20% by weight of urban waste, or 15 to 17 million t.p.a.; this causes a problem with the accumulation of waste, pollution and disposal costs. And less pollution occurs when waste paper is used in the manufacture of paper products than results from the manufacture of pulp and of paper products from it. An estimated six-fold energy saving is made if paper products are manufactured from waste paper rather than pulp.
- 2. The Community today consumes 30 million tonnes of paper and board a year, of which only 14 million tomes is produced from fibres originating within the Community (5 million tonnes of wood fibre, 9- 10 million tonnes of fibres recycled from waste paper). Imports of paper and board, paper fibres, wood derived products therefore amount to 15 million t.p.a., or 8.000 million EUA deficit second only to that for petroleum products. It is therefore highly desirable that more use should also be made of

waste paper in order to reduce our dependence on outside sources in terms of resources and currency.

3. Since 1974 the question of waste paper had been complicated by the fact that the economic crisis has caused a considerable fall in the price of pulp and that, as a result, the price of waste paper is no longer attractive; this applies to many quality grades, especially the higher ones. It should be noted, however, that since the 4th quarter of 1978 the price of pulp has been rising.

./.

- 4. Recovery of waste paper has, of course, been affected by the crisis; it is now in a very difficult situation, as are many firms in the paper industry.
- 5. The Member States responses to the problem have varied. The United Kingdom, for example, which lacks major forestry reserves introduced in 1976 a scheme to the paper and board industry worth approximately E 23 million for waste paper processing equipment and the Netherlands has brought in a system of aids for waste paper storage and de-inking.

# II. OBJECTIVES

- 1. Increased utilization is possible, since the waste paper utilization rate (1) in the Community paper industry is 40% on average but could be raised to as much as 60%. Admittedly, the Community average of 40% is based on situations which differ widely from one Member State to the next; some have already attained a rate of approximately 50%.
- 2. Recovery should be increased at the same time. The average Community recovery rate (2) is now over 30%. Here again the situation varies considerably from one Member State to the next : in Ireland, for instance, it is 19%, in the Netherlands 45%.

(2) The recovery rate is the ratio of the total tonnage of waste paper recovered to the apparent consumption of paper and board.

- 2 -

<sup>(1)</sup> The utilization rate is the ratio of the total tonnage of waste paper consumed to the production of paper and board.

The increase is possible because at the moment only 9-10 million tpa is recovered from an available total of 25 million; 15-17 million tpa is discarded with household refuse.

There are economic and technical limits on the achievement of these objectives. It should be noted that a significant increase in the recovery and utilization of waste paper will create cost difficulties (the organization of systematic separate collection - sometimes from more remote places - and, where manufacture is concerned, extra investment for the de-inking and decontamination of waste paper). Moreover, while most finished paper products may contain a high proportion of waste paper, some lend themselves more readily than other to its inclusion.

## **III. MEASURES**

Actions should therefore affect both the supply and demand for waste paper. In accordance with the guidelines adopted by the Waste Management Committee the following measures (for example) could be taken :

# A. Demand :

- 1) Use of recycled paper by public bodies should be promoted.
- 2) Treatment techniques should be developed to enable paper products which contain a certain proportion of recycled fibres to compete, on both quality and price, with paper manufactured from virgin pulp (de-inking, decontamination) (see Community research programme -OJ N° L 107 of 21 April 1978).
- 3) Specifications for the various paper products should be drawn up to enable the quality of manufactured papers to be better matched to the use that is made of them and to avoid the presence of contaminated substances which would preclude or impede recycling operations.

## B. Supply :

 The waste paper recovery operator should be paid by the public authorities for collecting "waste".

- 3 -

./.

- 2) Long-term supply contracts between recovery operators and manufacturers should be encouraged.
- 3) Investment which encourages the development of waste paper should be subsidized.

The Council could compare the respective merits of the various measures and consider others if necessary.

For its part, the Commission is currently considering which of these measures could be the subject of a Community action, particularly with a view to improving the demand for waste paper.

- 4 -

# ANNEX II

## WASTE OIL

#### I. DEFINITION OF THE PROBLEM

- 1. In 1978 the nine Member States of the Community consumed roughly 4.3 million tonnes of lubricants, producing some 2.1 million tonnes of waste oil. It is estimated that approximately 50% of waste oil is collected and 50% discharged without controls into the environment (see attached table).
- 2. Looked at quantitatively, waste oil only represents a small part of the total Community waste flow; nevertheless, it is of considerable importance, owing to :
  - the scale of the pollution which it causes;
  - its high economic value, and
  - the need to import the raw materials required for manufacturing new lubricants, and the currency savings which result from the recovery of waste oil.
- 3. Waste oil is a potential secondary raw material which can be recycled and re-used almost in its entirety by successive regeneration and/or incineration combined with energy recovery. Regenerated oil already accounts for about 12% of the Community market for lubricants.
- 4. Regeneration and incineration are the two main forms which reutilization of waste oil takes; the first accounts for 80% and the second 20% in the Community as a whole. In the Federal Republic of Germany 91% of waste oil is regenerated and only 9% incinerated.
- 5. The trend in crude-oil prices since 1973 has resulted in increased direct utilization of waste oil for combustion purposes by small-scale producers and holders of waste oil (garages, etc) or sale by them to direct users. The burning of waste oil without preliminary treatment to remove the considerable quantities of heavy metals thus leads to increased atmospheric pollution.

./.

#### II. OBJECTIVES

Recovery of waste oil fulfils two objectives :

- reduction of pollution and
- conservation of raw materials and foreign currency.

## III. SYSTEMS FOR DISPOSING OF WASTE OILS EMPLOYED IN THE MEMBER STATES

In six of the nine Member States waste oil is collected systematically but only two, Denmark and the Federal Republic of Germany, have a well-structured collection and disposal system set up, organized and controlled by the public authorities.

In the United Kingdom a large proportion of Waste oil is disposed of by smallscale recovery operators and by small to medium-sized users. Nevertheless only 170 000 tonnes out of a total of 545 000 tonnes of waste oil produced was recovered in 1977. Most is burnt directly; 68 000 tonnes was regenerated in 1976/77.

<u>Italy</u> has a compulsory recovery system. From the information at the Commission's disposal, it would seem that the system is only applied by the authorities and public bodies. Out of the 270 000 tonnes of waste oil produced annually, approximately 110 000 tonnes is collected; roughly 70 000 tonnes is regenerated. Regenerated oil is taxed at a lower rate with a view to ensuring the safe disposal of waste oil and promoting its further use.

<u>In France</u> the disposal of waste oil is regulated by the Decree of 20 November 1956 which lays down that all waste mineral lubricating oil is to be regenerated. Three large recovery firms collect roughly 340 000 out of the 500 000 tonnes produced. In addition there is a large number of small-scale recovery operators who collect roughly 40 000 tonnes, which is mostly burnt.

Up to 1 July 1979 regenerated oil is to be exempted from tax with a view to ensuring the safe disposal of waste oil and promoting its re-use.

In Denmark the recovery and recycling of waste oil are subject to comprehensive regulation. Holders who cannot themselves dispose harmlessly of waste oil and do not have a licence to process it are obliged to deliver it to a local collection centre, which records incoming consignments. If the impurities in waste oil received exceed 5%, the owner must pay for subsequent disposal and recycling. The Commission has no statistics on recovery.

Local collection centres send their waste oil to the national treatment centre at Nyborg where it is processed in preparation for use as heating oil. Only a small quantity - 1 000 to 2 000 tonnes per year - is regenerated.

./.

The Federal Republic of Germany has the most comprehensive recovery, disposal and reutilization system at present thanks to the Law of 23 December 1968. Thus, almost all waste oil is collected, re-used and disposed of harmlessly. Of the 525 000 tonnes of waste oil produced in 1977, only 8 800 tonnes was disposed of without controls. Roughly 91% was regenerated and 9% incinerated.

Under the Law of 23 December 1968 a fund was set up to meet the uncovered costs of firms licensed and approved to dispose of waste oils. This is not aid but rather payment for services rendered, for these firms are obliged to collect all waste oil produced in an area allocated to them by the relevant authority. The fund is financed by a charge which is collected when the lubricants are first sold.

All holders of waste oils must keep a record of all technical and economic information on waste oil which they hold, receive or pass on.

It is thus possible to follow the flow of waste oil from the original source to final disposal.

Every three years the government has to submit a report to Parliament on the fund's activities.

The government has recently completed its legislation by prohibiting the burning of waste oil in small to medium-sized furnaces with no means of pre-treatment and/of cleaning the smoke with a view to reducing pollution and avoiding any risk of explosion, etc.

## IV. COMMUNITY RULES AND MEASURES

On 16 June 1975 the Council adopted a Directive on the disposal of waste oil (1). This lays down that Member States must take the necessary measures to ensure the recovery and safe disposal of waste oil and that, as far as possible, disposal should be carried out by recycling.

The application of this Directive at national level appears to be rather slow. Yet it affords the best means of attaining the above objectives. In particular it provides for :

- the setting-up of a recovery system with licensed firms having an obligation to collect (article 5);
- strict inspection to see that waste oil is not discharged and to prevent pollution being caused by waste-oil processing (article 4);
- the obligation on holders of waste oil to keep a record giving technical and economic information so that the flow of waste oils may be followed from the original source to final disposal (article 10);
- the payment of indemnities for services rendered to meet the uncovered costs incurred in the obligatory collection and disposal of waste oils (article 13);
- the financing of the indemnities by a charge to be imposed on lubricants when they are first sold (article 14).

(1) OJ Nº L 194 of 25 July 1975.

- 3 -

The example of the Federal Republic of Germany, which has practised these measures for a number of years, shows this to be true.

The Council could examine and compare the results obtained from the means employed in the Member States.

# Disposal and recycling of waste oil in the Member States (1977)

(Estimate)

-

.

Member States	Total inland consumption of lubricant		Waste oil collected	Waste oil burnt	Waste oil regenerated	Total waste Direct oil capable of disposal regeneration (estimate)		Disposal without controls
	· T.	Τ.	Τ.	Τ	T.	T.	Τ.	Τ.
Belgium	200.000	100.000	15.000	13.000	2.000	-	13.000	-
Denmark	90.000	45.000	-	-	-		-	-
France	1.020.000	500.000	380.000	40.000	93.000	170.000	60.000	-
United Kingdom	1.029.000	545.000	170,000	-	68.000	-	<u>-</u>	
Ireland	35.000	17.000	-	-	-	-	-	-
Italy	546.000	270.000	110.000	40.000	70.000	180.000	-	-
Luxamburg	8.600	3.000	-	2.000	-	-	-	<del>-</del> .
Nether Lands	229.000	110.000	80.000	80.000	-	-	-	550
Federal Republic	1.108.000	527.000	333.000	30.952	303.000	400.000	184_248	8.800
TƏ FAL	4.265.600	2.098.000	1.088.000	205.952	536.000	750.000	257.248	9.350
Rounded up	4.300.000	2.100.000	1.100.000	206.000	540.000	750.000	260.000	

# ANNEX III

## PACKAGING FOR BEVERAGES

## I. Definition of the problem

 Beverage packaging causes social costs for three things : waste disposal; air and water pollution; and litter. These costs are not borne by those who cause them, i.e. manufacturers, distributors and consumers. Moreover, packaging consumes energy and raw materials.

Even a rough estimate is hard to make, but shows social costs to be substantial (about 680 million EUA).

- 2. Social costs vary considerably with the type of packaging : they are much higher for non-recycled throwaway glass than for plastic, and generally higher for plastic than for returnable glass. When they choose a particular form of packaging, consumers and manufacturers do not have to take all the consequences of their choice.
- 3. Since social costs are not included in the price of packaging, the market does not cause the best distribution between the various forms of packaging to be achieved.

## II. Objectives

- The sound management of environmental resources requires that market deficiencies should be mitigated by restricting the production, consumption or discharge of packaging.
- 2. These restrictions can be achieved by making products lighter, by recovery, by recycling materials or by changing the way in which packaging is used (e.g., deposit charges and re-use).

- It is not easy to find a solution which would at once minimize manufacturing and distribution costs, maximize consumer satisfaction, reduce social costs and safeguard employment in the regions.
- Various instruments can be used to support intervention by the public authorities. Thus Member States have adopted various solutions either by legislating or by encouraging voluntary agreements.
- 3. In <u>Denmark</u> an outline law empowers the competent authorities to restrict or prohibit the marketing of certain types of packaging and to introduce an obligatory deposit charge on certain drinks. The sale of soft drinks in non-returnable containers (cans and bottles) has been prohibited since 1977. The conclusion of a voluntary agreement between brewers and importers was encouraged by the Ministry of the Environment in order to phase out the sale of beer in cans. Under this agreement beer will not be marketed in cans after 1981.

Since 1978 a tax, varied according to the container's capacity and the packaging materials used has been applied to all beverages (including milk and milk products).

In the <u>Federal Republic of Germany</u> general measures enable the production of certain types of packaging to be limited. For beer there are voluntary agreements between brewers concerning the use of returnable glass bottles. However, it is still permitted to sell beer in cans or non-returnable bottles. The competent authorities have also encouraged industry to step up the collection of bottles and the recycling of glass. In <u>the Netherlands</u> manufacturers have reached agreements relating to the deposit charge on containers for beer and soft drinks. The public authorities support the recycling of materials and the creation of bottle banks.

In <u>France</u> the tendency seems to be towards voluntary agreements which restrict non-returnable packaging and towards financial incentives (e.g. a tax designed to internalize social costs). At the same time the recycling of glass and plastics is encouraged.

In <u>Luxembourg</u> the promotion of voluntary agreements to restrict nonreturnable packaging is being considered. Framework measures give the competent authorities the power to restrict, or even prohibit, certain types of packaging.

In the <u>other Member States</u> the preferred course seems to be to encourage the recycling of materials (possibly through subsidies from public funds or the introduction of bottle banks). Voluntary standardization seems to be an aim in several states.

- 4. It must be pointed out, however, that certain measures taken by Member States in isolation may conflict with Community law.
- 5. The Council could discuss the various means employed and their merits by comparing the results achieved in the Member States.

## ANNEX IV

#### THE MANAGEMENT OF WASTE TYRES

#### I. DEFINITION OF THE PROBLEM

- In 1978 the nine Member States produced some 1.8 million tonnes of worn-out tyres. It is estimated that only 800 000 tonnes is recycled or otherwise recovered; 20 to 50% of the 510 000 tonnes recycled is used for private cars and 30 to 35% for utility vehicles while 290 000 tonnes per year is used in public works and heat generation.
- 2. In quantitative terms old tyres represent only a small part of the total Community flow of solid wastes; nevertheless, they entail substantial— and increasing— social costs (the estimated growth rate in arisings of old tyres is 10% a year). Various research programmes have been carried out at national and international level into this form of waste (1).
- 3. As with beverage packaging, the costs are not known exactly. They are primarily of three kinds :
  - Disposal costs. A figure of 100 million EUA can be put forward as a rough guide. Old tyres are difficult to dispose of. They often constitute litters. In tips they increase fire hazards and promote the proliferation of rodents and disease-carrying insects. They have to be fragmented in order to be burnt : this is a costly process; and when burnt they often damage the incinerators. They obviously can not be composted : rubber is a very stable material, indeed hardly degradable at all.
  - The costs of pollution caused by the production of tyres are particularly difficult to estimate, but a figure of 170 million EUA can be put forward for the Community as a whole.
  - The raw materials required for the manufacture of tyres (natural rubber, oil, etc) are mostly imported.

<sup>(1)</sup> e.g., the OECD study on the management of waste tyres (ENV.WMP/77.6 of 25 October 1978).

4. These social costs are not reflected in the price of tyres and are therefore not automatically taken into account by market mechanisms.

## **II. OBJECTIVES**

- 1. As with beverage containers, the measures which are likely to reduce external costs are essentially :
  - the reduction of the number of tyres thrown away and
     exploitation of waste.
- 2. Reduction in the quantities discarded can be obtained by :
  - increasing tyre life (up to 160 000 km);
  - more use of retreading, which now provides every assurance of safety (a 30-40% increase in retreading).
- 3. Exploitation of waste from tyres can be achieved by :
  - reclaiming the rubber ) recovery of raw materials for the manufacture
    ) of new tyres, floor coverings, insulation panels,
    producing cramb rubber) and so on
  - incineration with heat)
    recovery (8200 kcal/kg)
    compared to 7000 kcal/) energy recovery
    kg for coal and 9800 )
    kcal/kg for heavy )
    fuel-oil

#### III. MEASURES

- 1. Various instruments of a regulatory, fiscal, contractual or other nature are used notably :
  - subsidies ( \_ for systematic collection and storage ( . research and development ( . for processing old tyres
  - tyre standardization (to encourage retreading in particular);
  - contracts between manufacturers, recovery operators and users (with a view, for instance, to fitting public authorities vehicle fleets with retreads);
  - a tax or charge on new products (primarily to encourage the use of high-mileage tyres, retreads, etc);
  - research and development projects on retreading, size reduction, rubber reclamation, and pyrolisis (proposal for a multiannual R § D programme in the field of recycling of orban and industrial waste (COM(78)407)).
- 2. The Council could discuss the comparative merits of these measures.