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MONITORING AND CONTROL OF TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Paris 1993

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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F O R E W O R D

The Organization for Economic Co-operation and Development (OECD) is concerned with helping to achieve high economic growth, employment and a rising standard of living while at the same time ensuring that environmental amenities are maintained or improved and that man and the environment are protected insofar as possible from harm. In other words, the OECD actively seeks to promote sustainable growth.

Member countries of OECD include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States. Note that all twelve countries of the European Community are also OECD Members.

In 1974, the OECD Environment Committee, which guides all work involving environmental matters on behalf of the Member countries, created the Waste Management Policy Group. This Group is composed of high level governmental officials charged with responsibility for achieving environmentally sound waste management in their respective countries. As its name implies, the Group is primarily concerned with considering and developing international policy to promote appropriate waste management as a contributor to sustainable growth. In its work, the Group considers technical, economic and social issues and seeks to harmonize results of these studies into coherent and implementable international policy actions.

During the period 1982-1993 the Waste Management Policy Group devoted considerable time and effort in order to develop appropriate measures to control transfrontier movements of hazardous wastes. This work resulted in a number of Decisions and other OECD Council Acts, and contributed significantly to the preparation of the UNEP Global Convention adopted in Basel on 22 March 1989. Directives adopted by the European Community in this field also benefitted from the OECD activity. This report summarizes this activity and presents a comprehensive set of the relevant Council Acts.

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This Monograph was first published in May 1990. This updated version includes additional activities carried out during the period 1990-1993.

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BACKGROUND AND SCOPE OF THE PROBLEM

Wastes and Their Management

Wastes are materials intended for disposal; they are disposed by various means such as burial, insertion into the sea, incineration, spreading onto land, etc. Hazardous wastes are wastes which, if improperly managed and disposed, could harm man and/or the environment because they are toxic, corrosive, explosive, combustible, etc. Often, regulatory authorities judge wastes potentially hazardous in view of certain of their constituents, such as heavy metals. Lists of potentially hazardous wastes have been issued by many countries. Policies and practices concerning hazardous waste management differ in each OECD Member country as compared to the others.

Policies for dealing with wastes have evolved over a long period of time in many countries. There is general agreement that the management options, ranked in order of desirability from the point of view of environmental amenity, are as follows:

a) Reduce generation of wastes, e.g. by more efficient processes in manufacturing, reduction of disposable material in consumer goods or increase of durability in products;

b) Separate usable components of the waste at their source, e.g. by more efficient control of effluents from manufacturing process, separation of paper, glass, plastic and metals by householders, or concentration of used tyres or oil at collection centres;

c) Reuse of waste products directly if possible, e.g. return of an effluent to the production process as in steelmaking or cement kiln operations or exchange of material which is a waste from one process but may be a feedstock for another process;

d) Transformation or other physical or chemical treatment in order to recycle usable materials from waste, e.g. burning of household wastes to recover energy, magnetic separation of ferrous scrap from household waste and subsequent use of the material to prepare ferrous products, reclamation of non-ferrous metals from mixed industrial wastes by thermal processes, re-refining of waste lubricating oils, or distillation and regeneration of spent solvents;

e) Destruction of the waste by physico-chemical treatment or incineration, e.g. neutralisation by mixing alkaline and acid wastes or burning of pumpable liquid waste or solid wastes;

f) Permanent storage of the waste in or on land or use of the sea as a disposal area, e.g., dumping of wastes into the sea or incineration-at-sea.

Economic, social, technical and institutional issues will clearly affect how a specific region or country chooses specific policies with respect to waste management. Industrial activity inevitably generates by-products or wastes in addition to the goods and services which are directly demanded. Since industrial growth is a goal of most countries, the question of how to deal with these wastes will eventually arise. Many countries have experienced adverse consequences resulting from improper management of certain potentially hazardous wastes; there is an abundance of data concerning many sites where such wastes were deposited inappropriately. Costs of remedial action are extremely high, and the threat of adverse health and environmental effects is never completely removed.

A number of countries have established national systems for monitoring and control of hazardous wastes. The central goal of such systems is to ensure that discarded substances which some segment of the populace view as potentially harmful to themselves and/or to the environment and about which they are willing to take action are managed so as to minimise the possibility for adverse effects to occur. Certain features are common to all existing monitoring and control systems for hazardous wastes. This list includes:

-- Definition of "wastes", "disposal" and the setting of a boundary (which may be sharp or fuzzy) between wastes destined for disposal and "materials" destined for recycling, resource recovery, reuse or reclamation.

-- Designation of a list of wastes which will constitute "hazardous wastes"

-- Compilation of a list of probable sources (generators) of hazardous wastes. This list may be general, e.g. industries X, Y, Z, hospitals, etc. or specific, e.g. Firms A, B, C, etc. Many countries use both.

-- Assessment of the quantity of each type of hazardous waste to be controlled. This result depends entirely upon the list of wastes deemed to be hazardous coupled with the existing sources.

-- Provision of treatment, storage and disposal facilities to match the quantities of each type of hazardous waste produced. The goal is to provide sufficient capacity (sites) to protect man and/or the environment at lowest practicable cost.

-- Implementation of a monitoring scheme which will afford the competent authorities the means to track the wastes from "cradle-to-grave" and perhaps beyond.

-- Means to respond quickly and accurately to any emergencies caused by accident, failure of the system or discovery of abandoned hazardous wastes which may pose a threat to man and/or the environment.

-- A regimen for assigning responsibility and liability with respect to the management of hazardous wastes. Ease of settling questions of financial responsibility and insurance increases as clarity in this context increases and vice-versa.

-- Adequate resources for setting standards of compliance with the regimen selected to control hazardous wastes, and for enforcing the rules in case of non-compliance.

-- A longer term approach meant to induce as much of the waste as possible to move upward in the "order of desirability" indicated above. Clearly, this approach must specifically show what benefits are to be expected from any proposed policy changes. Flexibility to react to changing conditions is needed as well.

In one form or another, and with certain national (or local) variations, these ten items form the foundation for all active systems of hazardous waste management. A number of factors bear on how individual countries choose to emphasise various elements; these factors include costs, geography, industrial mix, public awareness, legislative mandate and many others. Resources, measured in money units, directed towards hazardous waste management tend to fall in the range of $5.00 to $15.00 per capita annually for many industrialised countries. An exception is the United States where annual per capita costs seem to fall in the range of $60 to $70*.

Transfrontier Movements of Hazardous Wastes

Millions of tonnes of potentially hazardous waste cross OECD national frontiers each year on their way for recycling or to disposal because there is no local disposal capacity for these wastes or because legal disposal in a foreign country may be more environmentally sound (i.e., recycled in the foreign country as compared to disposal at home), or managing the wastes in the foreign country may be less expensive than at home. Estimations made in 1984 indicate that, on average, a consignment of hazardous wastes crosses an OECD frontier every five minutes, 24 hours per day, 365 days per year. There are more than 100 000 such movements in OECD European countries yearly. About 6 000 such movements occur annually in North America.

While most of this traffic takes place among OECD Member countries, certain quantities of hazardous wastes are exported from the OECD area. In many instances, Eastern European countries are the importers. But in 1988, there were many articles in the press throughout the world reporting the shipment or proposed shipment of large amounts of wastes to countries with developing economies. There were between thirty and fifty discrete proposals reported concerning exports of hazardous wastes from industrialized countries to developing countries.

There are a number of potential stimuli for causing generators of waste to consider export as a means of dealing with these wastes. This list includes, but may not be limited to, the following:

* The difference arises in large measure because the United States manages large quantities of dilute wastewaters as hazardous wastes while in Europe, these materials are managed under water protection statutes.

-- rising costs of disposal in the home country;

-- diminishing capacity for disposal of certain types of wastes in the home country;

-- potential future liability for any damages caused by wastes disposed into or onto land in the home country;

-- tightening of laws, regulations and policies concerning disposal of certain types of wastes, e.g., prescriptive disposal routes, such as incineration being required for liquids containing certain organic constituents;

-- tightening of laws, regulations and policies governing on-site disposal operations for wastes performed by a generator on his own premises;

-- general economic growth which may result in more total generation of wastes;

-- existence of disposal facilities which may serve several countries;

-- market opportunities for materials which can be recovered, reclaimed or recycled from wastes otherwise destined for "final" disposal;

-- existence of an appropriate disposal facility in a foreign country which is closer than a similar facility in the home country.

Legal disposal will almost certainly become increasingly costly as a function of time. A generator will normally seek least cost legal disposal for his wastes. If export is available, legal and less costly than disposal in the home country, then export is a likely choice. Two key questions arise:

-- What types and quantities of wastes are likely to be prime candidates for export?

-- What costs can generators expect to avoid if export is chosen for these wastes?

These two questions were first considered in some detail by the OECD in February, 1984, when the Waste Management Policy Group noted that:

a) Hazardous waste which crosses frontiers destined for disposal in another country is likely to be waste considered highly hazardous, i.e. requiring incineration or physico-chemical treatment in the generator country as well as being restricted from legal sea dumping;

b) Within Europe, journeys of up to 800 km can be contemplated by a generator (for hazardous wastes requiring physico-chemical treatment or incineration in the home country) in order to reduce total costs of disposal;

c) Over 2 million tonnes of hazardous waste are estimated to cross national frontiers of OECD European countries annually on the way to legal disposal either at sea or ashore. This figure represents 8 to 10% of all such wastes generated in these countries;

d) Transport of highly hazardous wastes, e.g. those banned from sea dumping by international conventions, via ship to certain developing countries from industrialized nations, could be very profitable in economic terms, in the short run, for all participating parties. Hence, the occurence of such "North-to-South" movement of highly hazardous wastes should be considered as a real possibility;

e) Implications of possible shipments of highly hazardous wastes to developing countries, i.e. "North-to-South" movement of such wastes may need to be assessed. Controls by industrialized nations on such exports may need to be studied, e.g., the legality of the imposition of restrictions on highly hazardous wastes destined for disposal in a developing country;

f) Methods providing for monitoring and control of transfrontier movements of hazardous wastes should be developed.

Today, costs for legal disposal of hazardous wastes are high and increasing in most Member countries. Capacity for legally disposing hazardous wastes into or onto land is becoming more scarce. Regulations in some Member countries require that certain types of wastes be destroyed by incineration. Simultaneously, the siting and bringing into service of new disposal capacity is becoming more difficult within Member countries. In light of these factors, a rough estimate of the costs in OECD Europe of incineration and/or physico-chemical treatment for certain classes of hazardous wastes such as liquids and pumpable sludges containing organics and/or heavy metals or cyanidic components is about 300 European Currency Units (ECU) per tonne on average. For certain wastes, the cost of disposal may be well over 1 000 ECU per tonne.

If the cost of paperwork, packaging, labelling, insuring and transporting one tonne of such waste, and disposing of it through less expensive methods, is conservatively estimated as 200 ECU, then, on average marginal avoided costs to generators of at least 100 ECU per tonne of waste exported would occur. In practice, these avoided costs may be considerably greater in specific cases. The total cash flow of this waste trade probably represents well over 500 million ECU annually in Europe and may even approach 1 000 million ECU.

For the United States, some 1985 data for the state of New Jersey reported disposal cost ranges of $200 to $2 600 per tonne [1]. Very roughly, the average cost of disposal by means other than incineration was $500 per tonne while for incineration, the average cost was $1 500 per tonne. The potential avoided costs for waste which might be exported for disposal into or onto land probably averages at least $250 per tonne even if voyages of over 5 000 km are required. For wastes which might have to be incinerated, avoided costs could be more than $2 000 per tonne.

MONITORING AND CONTROL OF TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

In the beginning of the 1980's many OECD countries had adopted or were in the process of developing regulatory measures to enable their authorities to monitor the management of hazardous wastes from the place of generation to the place of disposal. It became rapidly clear however that, in case of transfrontier movements, such national monitoring systems were not totally adequate since countries had generally insufficient knowledge about consignments of wastes imported into their territory to exercise proper control. In the Autumn of 1982, the Waste Management Policy Group proposed that guidelines be developed for the export and import of hazardous wastes, bearing in mind the different levels of development of environmental regulations among countries and the different levels of expertise. On 1st February, 1984, the OECD Council (the governing body of OECD) decided that "Member countries shall control the transfrontier movements of hazardous wastes and, for this purpose, shall ensure that the competent authorities of the countries concerned are provided with adequate and timely information concerning such movements" [OECD Council Decision and Recommendation C(83)180(Final), see Appendix 1 for full text]. Moreover, a comprehensive set of guiding principles concerning such control was recommended to Member country governments.

The Principles included with this OECD Council Decision and Recommendation concern the basic policy strategies needed in order to properly monitor and control international traffic in potentially hazardous wastes. In order to explore these issues, OECD, with the aid of a grant by Switzerland, convened a Seminar on the Legal and Institutional Aspects of Transfrontier Movements of Hazardous Wastes in Paris on 12th-14th June 1984. Fifteen background and issue papers were presented by experts in various aspects of policy governing the legal and institutional aspects of waste movement. After review by the OECD Waste Management Policy Group, these papers were published as a comprehensive overview of the topic as of mid-1984 [2].

These OECD actions provided the foundations for European Community legislation in this area; Directive 84/631/EEC of 8 December, 1984 in effect provides for implementation of the principles embodied in the recommendation of the OECD Council [3].

OECD Basel Conference

OECD Environment Ministers, the responsible Commissioner from the European Commission, and senior policy officials from OECD countries participated in a major policy Conference on International Cooperation concerning Transfrontier Movements of Hazardous Wastes, hosted by the Government of Switzerland and held on 26th-27th March 1985 at Basel. Also present were representatives of the United Nations Environment Programme, the Economic Commission for Europe, the World Health Organisation and the Council of Europe; the OECD Business and Industry Advisory Council, the Trade Union Advisory Council and representatives of non-governmental organisations.

This OECD Conference was convened in order to provide Ministers and other senior policymakers, international organisations and non-governmental organisations with an opportunity to discuss the major issues and to recommend what international cooperation is required in order to achieve effective monitoring and control* of hazardous wastes moving across national frontiers [4].

The Conference reaffirmed that the basic principles for the management of wastes (including hazardous wastes) must be first, to prevent and reduce, so far as possible, the generation of wastes; and secondly to increase the proportion of wastes that is recycled or re-used or treated so as to reduce its hazardous character. It recommended that OECD Member countries should promote the establishment of appropriate disposal facilities for the management of hazardous wastes at the national level since such action may serve to reduce the need for transfrontier movements of hazardous wastes. The costs of appropriate management and treatment of hazardous wastes must be borne by the generators and other persons who handle or manage the wastes and not by society or the environment.

The Conference also reaffirmed that transfrontier movements of hazardous wastes may, if not properly monitored and controlled, create serious hazards for human health and the environment. It considered that efficient and environmentally sound management of hazardous wastes may, however, justify some transfrontier movements of such wastes; and that, in all cases, the wastes should be directed to adequate disposal facilities.

The Conference concluded that the establishment of an OECD system to monitor and control transfrontier movements of hazardous wastes implies internal obligations for monitoring, control and enforcement on the part of OECD Member countries participating in the system, and noted that actions undertaken for implementing any such system should not relieve the generator of hazardous wastes from any of its responsibilities.

The Conference recommended that an effective international system for the control of transfrontier movements of hazardous wastes should be developed by OECD. This system was to address issues concerning the definition and classification of hazardous wastes; their notification, identification and control; the harmonisation of technical standards for their management and control; relations with non-Member countries; and the legal and regulatory framework.

The Conference agreed on some basic principles with regard to transfrontier movements of hazardous wastes to or from non-Member countries. It recommended that the OECD system should recognise and implement the principle that OECD Member countries would not apply any less strict controls on transfrontier movements of hazardous wastes involving non-Member countries

* Monitoring means that the whereabouts of hazardous wastes are known "from cradle-to-grave" and that the wastes are directed to an appropriate facility for treatment and disposal. Control means that authorities are aware of waste flows and can act rapidly to ensure that the possibility for inappropriate handling of the wastes is minimized.

than they would for movements involving only Member countries; and that they would not allow movements of hazardous wastes to non-Member countries to occur without the consent of the appropriate authorities of the importing country and of any non-Member countries of transit, and unless the hazardous wastes were directed to adequate disposal facilities in the importing country.

The Conference decided that its conclusions and recommendations should be brought to the attention of the OECD Environment Committee meeting at Ministerial level (18th-20th June 1985) and proposed that they should thereafter form the basis for further OECD action in the field of transfrontier movements of hazardous wastes.

OECD Mandate

The OECD Environment Committee meeting on 20 June, 1985 at Ministerial level heeded the outcomes of the Basel Conference and declared that Member country governments would: "Strengthen control of the generation and disposal of hazardous wastes and establish an effective and legally binding system for control of their transfrontier movements, including movements to non-Member countries." This declaration was transformed immediately into an action program when, by means of Resolution C(85)100, the OECD Council decided to:

> "develop an international system for effective control of transfrontier movements of hazardous wastes, which will include appropriate OECD instruments such as further Acts of the Council covering notification, identification and control of such transfrontier movements, as well as an international agreement of a legally binding character";

and specifically instructed the Environment Committee:

"a) To undertake the work necessary to implement this Resolution with a view to making proposals in the form of appropriate OECD instruments and a draft international agreement before the end of 1987;*

b) To assess, after consultation with other competent international organisations, whether the agreement should be developed in such a way that it can be open to both OECD Member countries and other interested countries;

c) To base the international system upon the principles contained in the Decision and Recommendation of the Council on Transfrontier Movements of Hazardous Waste [C(83)180(Final)], further developed in the light of the Conclusions and Recommendations adopted by the OECD Conference on International Cooperation Concerning Transfrontier Movements of Hazardous Wastes, subsequently endorsed by the Environment Ministers of OECD Member countries." (Appendix 1 contains the full text of this Resolution.)

* The Council subsequently extended this time limit to 31st December, 1988.

OECD ACTIONS IN RESPONSE TO THE MANDATE OF COUNCIL RESOLUTION C(85)100

Identification and Classification of Hazardous Wastes

Lists of potentially hazardous wastes have been issued in more than twenty Member countries; no two of these lists are identical. Moreover, international agreements concerned with disposal of wastes into marine bodies contain lists of potentially hazardous wastes. International agreements governing transport of dangerous materials include wastes as well. Fortunately, there are certain similarities between this myriad of lists; as a result, OECD was able to devise a system which enables rapid cross-referencing among the lists [5].

Core List of hazardous wastes

The existence of these diverse lists prompted Member country governments to explicitly call for development of "an agreed list of hazardous wastes for all transfrontier movements of such wastes between OECD Member countries" as part of Council Resolution C(85)100. This task was begun by simply determining which items appeared most frequently on all of the national and international lists of hazardous wastes. This process clearly indicated that wastes containing some proportion of one or more of twenty-seven constituents were proscribed by all or almost all of the national and international lists. In addition, certain types of generic wastes (waste streams) are often legally defined or considered to be hazardous to man and/or the environment.

Consideration, discussion and negotiation extending over nearly four years among representatives of OECD Member countries resulted in adoption by the OECD Council, on 27 May 1988, of a Decision [C(88)90(Final)] including a "Core List" of wastes for which consensus was reached that they require control when proposed for disposal following transfrontier movement [see Appendix I for full text of this Council Act). This Core List contains seventeen generic waste types and twenty-seven constituents, listed respectively as Y1-Y17 and Y18-Y44 in Table Y of C(88)90(Final). The net result is that, on average, one may predict with confidence between 85 to 90 per cent of all wastes legally defined as or considered to be hazardous by OECD Member countries and the European Community, and over 90 per cent of wastes which are prohibited or restricted from disposal at sea, are included in the Core List.

There are no concentration limits or levels included with the Core List. What decides if a waste listed in the Core List is subject to control is whether that waste does indeed exhibit one or more characteristics which could harm man and/or the environment. These characteristics are listed in Table 5 of Council Decision C(88)90(Final) along with descriptions allowing a conclusion to be reached concerning the likelihood that a given batch of wastes does or does not possess the characteristic. Some Member countries have developed tests which can be used to determine whether a waste exhibits the characteristics listed in Table 5.

The note appended to Table 5 makes clear that "absolute" conclusions concerning whether a waste presents a hazard and, if so, the degree of hazard are difficult to achieve given the present state of knowledge. This situation prompted consensus that concentration limits which implied both qualitative and accurate quantitative analysis of waste batches would be time consuming, expensive to obtain and moreover the results would not provide any better protection against harm for man and/or the environment. In practice, only a few countries include concentration as a criterion for deciding whether a waste should be considered as potentially hazardous. The Core List coverage is such that control is flexible; wastes which do not exhibit a hazardous characteristic can be excluded. Hence, the decision not to incorporate strict concentration thresholds provides a brake against unnecessary "overcontrol" while seeking to ensure that hazardous wastes crossing frontiers are indeed subject to suitable control.

Prior to adoption of the Core List by Member governments of the OECD, data were obtained from four countries (France, Germany, Netherlands and the United Kingdom) concerning what wastes were crossing their frontiers with great frequency. There were about 160 waste streams in aggregate. The Core List accounted for all but three (two of these were merely classed as "contaminated" or "containing harmful materials"; the third was aluminum containing drosses). These results show clearly that the Core List is likely to ensure coverage of virtually all potentially hazardous wastes which are anticipated to cross frontiers frequently.

Other wastes to be controlled

In addition to wastes covered by the Core List, all other wastes which are considered to be or are legally defined as hazardous wastes in the country from which these wastes are exported or in the country into which these wastes are imported are also subject to control under terms of Council Decision C(88)90(Final)*. Full coverage for countries concerned in a transfrontier movement of hazardous wastes is thus obtained by use of the Core List plus any wastes legally defined as or considered to be hazardous in the importing or exporting countries.

The Core List is, in fact, a subset of Tables 3 and 4 of Council Decision C(88)90(Final). These two tabulations taken together provide for almost total coverage of all wastes legally defined as or considered to be hazardous in the OECD area. Certain countries have adopted or are considering adoption of a national list of hazardous wastes based upon Tables 3 and 4. The Commission of the European Communities has proposed the use of Tables 3 and 4 in their entirety as a basis for listing hazardous wastes in the European Community [6].

Council Decision C(88)90(Final) also provides for a definition of the terms "wastes" and "disposal" for purposes of control of transfrontier movements. In practical terms, "wastes" are any materials which are subject to any of the "disposal" operations listed in Table 2 of the Annex to that

* The Council, when it adopted this Decision, agreed that, when implementing this part of the Decision, "Member countries shall not be obliged to enforce laws other than their own".

Council Decision. But any "wastes" destined for operations which may lead to resource recovery, recycling, reclamation, direct re-use or alternative uses are only deemed to be "hazardous wastes" if they are considered to be or are legally defined as hazardous wastes in either the country where they are generated or are to be disposed or both.

International Waste Identification Code

Because many countries have differing definitions, lists and methods of describing wastes considered to be or legally defined as hazardous wastes, Council Decision C(88)90(Final) provides for a uniform classification system referred to as an International Waste Identification Code (IWIC). The use of a coded description for wastes, i.e., the IWIC, allows virtually all wastes deemed to be hazardous by most countries to be described satisfactorily in terms of potential hazard, activity generating the wastes, physical form (liquid, sludge, solid), generic descriptor (contaminated soil, etc.), and constituents. In addition, the IWIC indicates reasons why the materials were intended for disposal and the disposal operation to which the wastes will be subjected. The IWIC provides a coded cradle-to-grave dossier which fully describes any batch of wastes undergoing transfrontier movement. If it is included within a notification system for exports of hazardous wastes the coding scheme of the IWIC will make the system more amenable to modern communications and information transfer technologies as well as to computer-based statistical evaluation. Appendix 2 provides details concerning how to write down the IWIC as well as explanatory notes for the Core List (Table Y) and Tables 1 - 6 of Council Decision C(88)90(Final).

Control of Transfers of Hazardous Wastes to Non-Member Countries Especially Developing Countries

In the 1980s apparently, there have been more than one hundred reported instances of proposals for transfer of potentially hazardous wastes from OECD Member countries to developing countries [7]. Over half of these proposals have been put forward since the beginning of 1986; more than forty developing countries were reportedly proposed as importers of such wastes in this time period [8]. Developing countries which did, in fact, receive these wastes apparently numbered about twelve [7].

There were outcries against such waste traffic. The Organization of African Unity unanimously passed a resolution condemning dumping of potentially hazardous wastes on African soil. The European Parliament passed a resolution condemning all significant exports of potentially hazardous wastes from the European Community to any country with a developing economy*. In addition legislation has been introduced in the United States Congress

* The Commission of European Communities has negotiated a ban on exports of hazardous wastes from the twelve member states toward non-Member states party to the Lomé IV Convention, i.e. a number of developing countries throughout the world.

which would prohibit the export of any waste (except for certain recyclable materials) unless a special permit (export license) were granted stipulating that the waste would be disposed as if it were in the United States* [9].

Individual countries have restricted or prohibited imports of wastes or hazardous wastes. For example, the Dominican Republic has long since prohibited import of industrial toxic wastes (Act 218 of 28 May, 1984). Reports suggest that about forty countries have declared their territories off-limits to foreign wastes as of mid-1989.

OECD action

The OECD was the first international body to take legal action to monitor and control exports of hazardous wastes toward non-Members, having acted in Spring 1986. Requirements for exports of hazardous wastes from the OECD area are set out in the Decision/Recommendation of the Council of 5 June, 1986 [C(86)64(Final)]. Member countries must apply no less strict controls on transfrontier movements of hazardous wastes involving non-member countries than would be applied on movements involving only Member countries (the full text of this Council Act is contained in Appendix 1). Obligations placed upon Member coutry governments** are as follows; they must

a) monitor and control exports of hazardous wastes to a final destination which is outside the OECD area (it follows that the competent authorities of the exporting country must be informed of any such prospective export);

b) ensure that their competent authorities have the power to legally prohibit these exports in appropriate instances (domestic laws, regulations or policies need to set forth conditions for the use of this power, i.e what are "appropriate instances");

c) prohibit movements of hazardous wastes to a final destination in a non-member country without the consent of that country (presumably, this implies consent in writing from a duly authorized official of the importing country who is conversant with the specific request for importation of a given quantity and type of hazardous wastes);

d) ensure that any countries of transit are notified in advance of the proposed transfrontier movement(s); and

e) prohibit movements of hazardous wastes to a non-member country unless the wastes are directed to an "adequate" disposal facility in that country.

It should be noted that for the OECD Member countries who are also European Community members, Directive 86/279/EEC of 12 June, 1986 sets forth precisely these same requirements concerning control of exports of hazardous wastes outside the European Community [10].

* To date (April 1990) this legislation has not been enacted into law.

** Decisions of the OECD Council are legally binding on Member countries which vote for them.

The Decision of the Council of 27 May, 1988 [C(88)90(Final)] defines the terms "wastes" and "disposal", and delineates what must be considered "hazardous wastes" for purposes of control of transfrontier movements. The requirements of Council Act C(86)64(Final) apply therefore to any wastes which are legally defined as or considered to be hazardous wastes in the country of exportation or the country of importation or both (as indicated earlier, when implementing this part of the Council Decision C(88)90(Final), Member countries shall not be obliged to enforce laws other than their own). In addition, wastes which belong to any of the forty-four categories of the Core List - unless these wastes do not possess any of hazardous characteristics listed in Table 5 of C(88)90(Final) - are also included.

If, however, certain "wastes" included in the core list of Council Decision C(88)90(Final) are to be exported from a Member country to a non-member country for purposes of one or more of the specific recycling/reclamation operations set out in Table 2B of that Decision and these "wastes" are not legally defined as or considered to be hazardous wastes in the country of exportation, then the requirements of Council Decision/Recommendation C(86)64(Final) do not apply.

While "disposal" is defined by Council Decision C(88)90(Final), the words "adequate disposal facility" are not specifically defined. In particular, Member countries can exercise considerable flexibility in reaching conclusions concerning whether a proposed export of hazardous wastes will be directed to an adequate disposal facility. This discretion leads to the likelihood of non-uniformity in applying the requirements of Council Decision C(86)64(Final) by the various Member countries.

Insofar as the transport of exported hazardous wastes is concerned, most OECD Member countries are signatories to international agreements governing transport of dangerous goods; "wastes" are also included under these agreements. Well established, uniform rules for packaging, labelling and carrying dangerous goods thus exist. Presumably, these rules would be enforced with respect to transfrontier movements of hazardous wastes from Member countries to places both inside and outside the OECD area.

Current legal requirements concerning exports of hazardous wastes from the OECD area

In sum, since 27 May, 1988 and based upon the 5 June, 1986 OECD Council Act [C(86)64(Final)], the current legally binding obligations upon OECD Member countries with respect to exports of hazardous wastes to non-Member countries, especially developing countries, include the following:

a) Competent authorities of the exporting country must be notified of all proposals to export hazardous wastes delineated by OECD Council Decision C(88)90(Final) prior to the commencement of the movement;

b) The competent authorities must object if (i) the importing country has not been notified and if consent of an appropriate official in the importing country is not available, (ii) the wastes are not directed toward an adequate disposal facility and (iii) proof that all transit countries have been notified of the prospective movement is not available;

c) The competent authorities must object to any proposal to export these wastes to any country that have banned the import of hazardous wastes since the consent of the importing country cannot be obtained legally;

d) The wastes must be packaged, labelled, documented and carried according to any applicable international agreements governing transport of dangerous goods;

e) The wastes must be identified and classified in accordance with OECD Council Decision C(88)90(Final); and

f) The shipment cannot legally occur until the competent authorities inform the exporter that the proposed transfrontier movement can proceed.

Development of an OECD System for Monitoring and Control of Transfrontier Shipments of Hazardous Wastes

The successful negotiations resulting in Council Decision C(88)90(Final) provided the basic foundation for the development of the international system for effective control of transfrontier movements of hazardous wastes referred to in Council Resolution C(85)100. Such a system, whether an OECD system or any other, can be effective if and only if all parties understand and agree upon what materials are "wastes" and, in turn, what "wastes" are deemed to be "hazardous wastes" subject to controls imposed by the system.

On this basis procedures for notification, identification and control of each transfrontier movement of hazardous wastes were developed which included means for acknowledging notifications or objecting to the proposed movement; a set of forms (Hazardous Waste Notification and Shipment Documents) was developed to provide for conformity and to facilitate these procedures. In particular, a draft international agreement was prepared and presented to the OECD Environment Committee in December 1988. This draft international agreement embodied the following basic principles:

a) Those wastes that are referred to as "hazardous wastes" for purposes of the control system, are identified.

b) Persons, such as the generator or disposer, who are technically capable of correctly determining if a "waste" is not "hazardous waste" subject to the terms of the control system bear the responsibility for such determinations.

c) Authorities who are competent to judge whether a proposed import of hazardous wastes can be managed in accordance with the laws/regulations and practices of the country of importation must receive prior notification that such an import is foreseen.

d) Competent authorities of the country of importation must formally confirm that they have no objection to a proposed transfrontier movement of hazardous wastes which is to enter territory under their jurisdiction.

e) Simplified procedures are possible for materials destined for recycling; in particular, if there is no objection, written confirmation is not necessarily required from the country of importation.

f) All countries through which hazardous wastes are to transit must receive prior notification.

g) If an objection is formally lodged by the authorities of a transit country to the passage of hazardous wastes, the transfrontier movement cannot legally pass through this country until the objection is lifted.

h) For transfrontier movements of hazardous wastes, only transporters and disposers who are authorised or allowed to perform such operations may be employed.

i) If a transfrontier movement of hazardous wastes cannot be completed as foreseen, the exporter must reassume responsibility for its wastes and efforts to ensure that the wastes are disposed in an environmentally sound manner must be undertaken. In particular, countries of exportation may not hinder or oppose return of the wastes.

j) Control of transfrontier movements of hazardous wastes to countries which are not parties to the agreement should be no less protective of the environment than control of such movements among contracting parties.

k) Bilateral or multilateral agreements or arrangements are permitted provided that any such agreements or arrangements are compatible with the principles of the international agreement.

l) Provisions exist to provide for regular, periodic information exchange concerning all aspects of implementation and functioning of the agreement.

The proposed OECD system for monitoring and controlling transfrontier movements of hazardous wastes is compatible with existing international agreements governing transport of dangerous goods. The prior notification information includes data concerning which (if any) of the transport of dangerous goods protocols would have been applicable. Moreover, packaging of the wastes for transport and classification concerning transport hazards would have to conform with United Nations recommendations [11]. The proposed OECD hazardous waste notification and shipment documentation would in no way supplant or interfere with documentation demanded by any existing international agreement concerning transport of dangerous goods.

ACTIONS OF OTHER INTERNATIONAL BODIES CONCERNING TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

A number of Member countries have acted to monitor and control transfrontier movements of hazardous wastes by means of domestic legislation and regulations as well as bilateral and multilateral agreements and arrangements. This section describes activities undertaken by the European Community and the United Nations Environment Programme.

European Community

The European Community (EC) has adopted a series of Directives aimed at monitoring and controlling transfrontier movements of hazardous wastes. Intracommunity movements as well as exports from or imports into the EC have been taken into account. In developing these Directives, the Commission of the European Communities (CEC), having collaborated closely in similar OECD efforts, elected to adapt certain results achieved in the OECD to EC needs.

A Directive on the supervision and control within the European Community of the transfrontier shipment of hazardous waste was adopted in December, 1984 [84/631/EEC]. This Directive largely transposed the "Principles" included with OECD Council Decision-Recommendation C(83)180(Final) into a legally binding form for use within the EC. This Directive excludes controls for chlorinated and organic solvents and provides for minimal controls with respect to waste, scrap, sludge, ash and dust from non-ferrous metals which is intended for re-use, regeneration or recycling on the basis of a contractual agreement regarding such operations [3].

Directive 84/631/EEC was supplemented in July, 1985 by a further Directive providing details of precisely how the notification of transfrontier movements of hazardous wastes must be done in the EC. In particular, specific forms and procedures for notification were laid down [12].

Directive 86/279/EEC sets forth conditions governing control of exports of hazardous wastes from the EC area [10]. This Directive closely resembles its earlier OECD counterpart described in the preceeding chapter.

In August 1988, the Commission of the European Communities proposed two new Directives which would define "wastes", "disposal" and "hazardous wastes" within the EC [6]. These proposals were developed after close collaboration of the Commission in the OECD negotiations which led to adoption by the OECD Council of the Decision of 27 May, 1988.

United Nations Environment Program

In June, 1987 the Governing Council of the United Nations Environment Program (UNEP) decided to proceed with development of a global Convention concerning the control of transboundary movements of hazardous wastes. Similar work in OECD was specifically mentioned by the Governing Council;

results achieved at OECD were to provide a foundation insofar as practicable for the UNEP efforts [13]. The UNEP Secretariat adopted a very ambitious schedule; a Convention was to be proposed for adoption by late March, 1989.

On 22 March, 1989, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal was adopted [14]. This Convention contains the basis for a method of identification, notification and control of transfrontier movements of certain wastes. Management of these wastes is also the subject of the Convention since both generation rates and disposal are taken into account. The goals of the Convention are that the generation of wastes subject to the Convention should be minimized, that transboundary movements of such wastes should also be minimized and that disposal of these wastes be performed so that man and the environment will be protected from "the adverse effects which may result from such wastes".

In keeping with the instructions of the UNEP Governing Council [13], some portions of the Basel Convention are taken verbatim or are close paraphrases of the OECD draft international agreement. For example, wastes subject to control are essentially those of the OECD Core List of Council Decision C(88)90(Final). The obligations placed upon generators, exporters, importers and disposers are founded upon the OECD text as well. There are, in addition, a number of requirements concerning generation and management of hazardous wastes, provisions for aid and assistance to developing countries, as well as a delineation of illegal traffic in hazardous wastes.

OECD Member country governments whole-heartedly supported the UNEP efforts from the inception of UNEP work in mid-1987. OECD Council Resolutions C(89)1(Final) and C(89)112(Final), the texts of which are included in Appendix 1, clearly reflect this support. The extension and amplification of the basic OECD draft international agreement to the global level was encouraged by Member country governments and the Secretariat since all sovereign states could participate in such global negotiations. The Basel Convention thus reflects the wishes of most of the world community. OECD and its Member country governments are pleased to have been able to act as a catalyst and to have provided the foundation for the global efforts.

RECENT OECD INITIATIVES (1990-1993)

In mid-April 1989, the Waste Management Policy Group concluded that, in view of the probable eventual ratification, entry into force and implementation of the Basel Convention, there was no need at this time for the OECD to pursue the draft international agreement since its essential elements were contained in the Convention. The Waste Management Policy Group also concluded that many of the policy options which had been posited and evaluated by OECD in response to the requirements of Council Resolution C(89)1(Final) concerning exports of hazardous wastes from the OECD area toward developing countries had also been incorporated into the Basel Convention and into measures already taken by several OECD Member countries.

Nevertheless, the Waste Management Policy Group recommended that the OECD Environment Committee keep under review progress towards the implementation of the Basel Convention and the possibility that further action by OECD concerning control of transfrontier movements of hazardous wastes might be necessary. To achieve these aims, the Waste Management Policy Group concluded that certain steps should be taken within the OECD in advance of the entry into force of the Basel Convention*. As a result of these suggestions, the Council adopted a Resolution [C(89)112(Final), see Appendix 1 for full text] which provides a very clear statement of the current and near-term future OECD role with respect to control of transfrontier movements of hazardous wastes and the effective implementation of the Basel Convention.

In January 1991 a Decision-Recommendation concerning the Reduction of Transfrontier Movements of Wastes [C(90)178/FINAL, see Appendix 1 for full text] was made by the OECD Council. This calls for delineation of such controls as may be appropriate for the transfrontier movements of wastes destined for recovery operations, clarification of the definition of such wastes and characterisation of those wastes which may require different levels of control. The Decision requires that wastes not destined for recovery operations should, to the extent possible, consistent with environmentally sound and efficient management practices, be disposed of within the Member country in which the waste is generated. The Decision provides that Member countries should develop disposal capacity for wastes which currently cannot be managed within their own territory. Alternatively, where this is not possible, countries should enter into bilateral or regional agreements conducted and approved at governmental level which provide for environmentally sound management of such wastes.

In March 1992 Member countries of OECD resolved to create and fully implement an international mechanism to control transfrontier movements of wastes destined for recovery operations within the OECD area. The Decision, Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations C(92)39/FINAL (see full text in Appendix 1), contains

* The Basel Convention entered into force in May 1992.

provisions to allow, what is now referred to as the "OECD Control System", to be developed. This System identifies wastes destined for recovery operations; it classes these wastes in Green, Amber and Red lists depending on their overall environmental risk and their management practices; and it establishes different levels of control for each list of wastes ranging from regular commercial control (green) to stricter controls (amber and red). It ensures that sufficient information is provided, in advance, to all countries involved in a transfrontier movement of wastes (exporting and importing countries and any countries of transit) in order that they may decide to allow or forbid the intended movement.

The OECD Control System applies only to OECD Member countries. It concerns all wastes involved in transfrontier movements and destined for recovery within the OECD area. A Review Mechanism has been established in order to evaluate the current placement of some wastes on the green, amber or red lists, to assess the placement of "new" wastes to one of these three lists and to make any proposals deemed necessary for revisions of the control system [15]. The lists of wastes established by the OECD Council Decision C(92)39 in March 1992 were revised for the first time in July 1993. The revised lists are included in the text of the Decision reproduced in Appendix 1.

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Appendix 1

OECD COUNCIL ACTS

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DECISION AND RECOMMENDATION ON TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

C(83)180(Final)

(Adopted by the Council on 1st February, 1984)

THE COUNCIL,

Having regard to Articles 5 a) and 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14th December, 1960;

Having regard to the Recommendation of the Council of 28th September, 1976 on a Comprehensive Waste Management Policy [C(76)155(Final)];

Bearing in mind that the Governments of the OECD Member countries have recognised "the responsibility they share to safeguard and improve the quality of the environment, both nationally and in a global context" and have declared that "the protection and progressive improvement of the quality of the environment is a major objective of the OECD Member countries" (Declaration on Environmental Policy, 1974);

Considering that a number of OECD Member countries generate substantial amounts of hazardous waste and that a significant proportion of such waste is subject to transfrontier movements;

Considering that efficient and environmentally sound management of hazardous waste may justify some transfrontier movements of such waste in order to make use of appropriate disposal facilities in other countries;

Considering that the generator of a hazardous waste has responsibilities to ensure that the disposal of its waste is carried out in a manner consistent with the protection of the environment, whatever the place of disposal;

Considering that countries have the sovereign right to manage hazardous waste within their jurisdiction pursuant to their own environmental policies and legislation, taking account of the rules of international law;

Considering the need for concerted action among Member countries to protect man and his environment against pollution which may arise in connection with hazardous waste management;

On the proposal of the Environment Committee:

I. DECIDES that Member Countries shall control the transfrontier movements of hazardous waste and, for this purpose, shall ensure that the competent authorities of the countries concerned are provided with adequate and timely information concerning such movements.

II. RECOMMENDS that, to implement this Decision, countries apply the principles concerning transfrontier movements of hazardous waste set out below.

III. INSTRUCTS the Environment Committee, having regard to the work of other international organisations, to elaborate a programme of activities to develop further the principles set out below and facilitate their implementation, and to explore what additional international action may be necessary concerning transfrontier movements of hazardous waste.

IV. INSTRUCTS the Environment Committee to review periodically action taken by Member countries in pursuance of this Decision and Recommendation.

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* *

Principles Concerning Transfrontier Movements of Hazardous Waste

The following principles are designed to facilitate the development of harmonised policies concerning transfrontier movements of hazardous waste. They do not prejudice the implementation of more favourable measures for the protection of the environment that are now in force or that may be adopted; neither do they prejudice the application of any international agreement dealing with the free trade of goods or services or the transport of dangerous goods.

Definitions of terms used in these Principles are appended.

General principles

1. Countries should ensure that hazardous waste situated within the limits of their jurisdiction is managed in such a way as to protect man and the environment. For this purpose, countries should promote the establishment of appropriate disposal installations and should adopt all necessary measures to enable their authorities to control the activities related to generation, transport and disposal of hazardous waste, and to ensure compliance with the laws and regulations in force.

2. In respect of the management of hazardous waste that is subject to transfrontier movements countries should require that:

(a) the entities concerned abstain from participation in transfrontier movements which do not comply with the laws and regulations applicable in the countries concerned;

(b) the entities involved in transport or disposal be authorised for this purpose.

3. Furthermore, with regard to any specific transfrontier movement of hazardous waste, countries should require that the generator of the waste should:

(a) take all practicable steps to ensure that the transport and disposal of its waste be undertaken in accordance with the laws and regulations in the countries concerned;

(b) in particular obtain assurances that all entities concerned with the transfrontier movement or the disposal of its waste have the necessary authorisations to perform their activities in accordance with the laws and regulations applicable in the countries concerned;

(c) reassume responsibility for the proper management of its waste, including if necessary the re-importation of such waste, if arrangements for safe disposal cannot be completed.

4. Countries should apply their laws and regulations on control of hazardous waste movements as stringently in the case of waste intended for export as in the case of waste managed domestically.

International Pre-Notification and Cooperation

5. Countries should co-operate in the control, from the place of generation to the place of disposal, of all hazardous waste that is subject to transfrontier movements.

5.1 For this purpose, and given the Decision, countries should take the measures necessary to ensure that the entities within their jurisdiction provide, directly or indirectly, the authorities of the exporting, importing and transit countries with adequate and timely information.

5.2 This information should specify the origin, nature, composition, and quantities of waste intended to be exported, the conditions of carriage, the nature of environmental risks involved, the type of disposal and the identity of all entities concerned with the transfrontier movement or the disposal of the waste.

6. Exporting countries should take the measures necessary to ensure that a request from an importing or transit country for relevant information elicits a constructive and diligent response.

7. Countries should adopt the measures necessary to enable their authorities to object to or, if necessary, prohibit the entrance of a consignment of hazardous waste into their territory, for either disposal or transit, if the information provided is insufficient or inaccurate or the arrangements made for transport or disposal are not in conformity with their legislation.

8. Countries should take all practicable steps to ensure that a projected transfrontier movement of hazardous waste is not initiated if one of the countries concerned has decided in conformity with its legislation to oppose the import or transit of the waste and has so informed the entities or authorities concerned in the exporting country.

9. When an importing or transit country opposes in conformity with its legislation a transfrontier movement into its territory and the waste has alrerady left the exporting country, the latter should not oppose reimport of the waste.

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Definitions

For the purposes of the above principles:

(a) "Waste" means any material considered as waste or legally defined as waste in a country where it is situated or through or to which it is conveyed;

(b) "Hazardous waste" means any waste other than radioactive waste considered as hazardous or legally defined as hazardous in the country where it is situated or through or to which it is conveyed, because of the potential risk to man or the environment likely to result from an accident or from improper transport or disposal;

(c) "Transfrontier movement of hazardous waste" means any shipment of waste from one country to another, where the waste is considered as being hazardous waste in at least one of the countries concerned. Hazardous waste arising from the normal operation of ships, including slops and residues, shall not be considered a transfrontier movement covered by this Decision and Recommendation;

(d) "Exporting country" means any country from which a transfrontier movement of hazardous waste is initiated or envisaged;

(e) "Importing country" means any country to which a transfrontier movement of hazardous waste takes place or is envisaged for purpose of disposal (treatment, landfill, storage, dumping or incineration at sea);

(f) "Transit country" means any country other than the exporting or importing country across which a transfrontier movement of hazardous waste takes place or is envisaged;

(g) "Countries concerned" means the exporting, transit and importing countries;

(h) "Entity" means the waste generator and any natural or legal, public or private person, acting on his own behalf or as contractor or sub-contractor (export, import, transport, collection, disposal, etc.), who owns or has the possession of the waste.

RESOLUTION

ON INTERNATIONAL CO-OPERATION CONCERNING TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

C(85)100

(adopted by the Council on 20th June 1985)

THE COUNCIL,

Having regard to the Decision and Recommendation of the Council on Transfrontier Movements of Hazardous Waste [C(83)180(Final)];

Having regard to the Note by the Secretary-General on the outcome of the OECD Conference on International Cooperation concerning Transfrontier Movements of Hazardous Wastes, Basel, 26th-27th March 1985, and in particular to the Conclusions and Recommendations of the Conference(1);

I. DECIDES :

To develop an international system for effective control of transfrontier movements of hazartdous wastes, which will include appropriate OECD instruments such as further Acts of the Council covering notification, identification and control of such transfrontier movements, as well as an international agreement of a legally binding character;

II. INSTRUCTS the Environment Committee:

a) To undertake the work necessary to implement this Resolution with a view to making proposals in the form of appropriate OECD instruments and a draft international agreement before the end of 1987;

b) To assess, after consultation with other competent international organisations, whether the agreement should be developed in such a way that it can be open to both OECD Member countries and other interested countries;

c) To base the international system upon the principles contained in the Decision and Recommendation of the Council on Transfrontier Movements of Hazardous Waste [C(83)180(Final)], further developed in the light of the Conclusions and Recommendations adopted by the OECD Conference on International Cooperation Concerning Transfrontier Movements of Hazardous Wastes, subsequently endorsed by the Environment Ministers of OECD Member countries.

(1) See Annex.

ANNEX

OECD CONFERENCE ON INTERNATIONAL CO-OPERATION CONCERNING TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

(Basel, Switzerland, 26th-27th March 1985)

CONCLUSIONS AND RECOMMENDATIONS OF THE CONFERENCE

THE CONFERENCE:

1) Declaring that the basic principles for the management of wastes (including hazardous wastes) must be, first, to prevent and reduce, so far as possible, the generation of wastes, to limit their hazardous character and to try to improve production processes and, secondly, to increase the proportion of wastes that is recycled or re-used or treated so as to reduce their hazardous character;

2) Recognising that nonetheless substantial quantities of hazardous wastes will be produced;

3) Aware also of changes in the nature of hazardous wastes generated and of the increased risks arising from inappropriate disposal;

4) Considering that efficient and environmentally sound management of hazardous wastes may justify some transfrontier movements of such wastes which should however, in all cases, be directed to adequate disposal* facilities;

5) Aware that the number of such transfrontier movements involving one or more OECD Member countries is substantial and has considerably increased in recent years;

6) Convinced that transfrontier movements of hazardous wastes may, if not properly monitored and controlled, result in serious risks to human health and the environment;

7) Considering that the present degree of monitoring of and control over such transfrontier movements is not always adequate and that stronger action is necessary;

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* The term "disposal means the collection, sorting, carriage and treatment of hazardous waste as well as its storage and tipping above or underground and the transformation operations necessary for its recovery, re-use or recycling.

8) Noting that the approaches adopted in the OECD Council Recommendation on a Comprehensive Waste Management Policy*, the OECD Council Decision and Recommendation on Transfrontier Movements of Hazardous Waste ** and the European Communities Council Directive on the Supervision and Control within the European Community*** of the Transfrontier Shipment of Hazardous Waste provide a sound basis for a system to monitor and control such transfrontier movements;

9) Conscious that actions undertaken for implementing any such system should not relieve the generator of hazardous wastes from any of its responsibilities;

10) Conscious also that any such system must take into account the interests of non-Member countries;

CONCLUDES that:

I. The establishment of an OECD system implies internal obligations for monitoring, control and enforcement on the part of OECD Member countries participating in the system;

II. The development of an OECD system must, as a matter of priority, include principles and procedures with respect to transfrontier movements of hazardous wastes which also involve non-Member countries;

III. The effective implementation of such a system of control therefore requires intensification of international cooperation within and beyond OECD Member countries.

RECOMMENDS that:

I. An effective international system for control of transfrontier movements of hazardous wastes should be developed by OECD, based upon and further developing the Principles contained in the OECD Council Decision and Recommendation on Transfrontier Movements of Hazardous Waste;

II. This system should address the issues concerning transfrontier movements of hazardous wastes set out below. Priority should be given to those issues where more rapid progress appears both necessary and possible, including the establishment of an agreed list of hazardous wastes;

* OECD Council Act C(76)155 (Final) of 28th September 1976.

** OECD Council Act C(83)180 (Final) of 1st February 1984.

*** European Communities Council Directive 84/631/EEC of 6th December 1984, Official Journal of the European Communities, No. L 326/31 (13/XII/84).

III. The system should include appropriate OECD instruments such as further Council Acts covering notification, identification and control of transfrontier movements, as well as an international agreement of a legally binding character;

IV. The OECD should assess, in consultation with other competent international organisations, whether the agreement should be developed in such a way that it can be open for signature by both OECD Member countries and other interested countries;

V. The system should recognise and implement the principle that OECD Member countries will not apply any less strict controls on transfrontier movements of hazardous wastes involving non-Member countries than they would for movements involving only Member countries; and that they will not allow movements of hazardous wastes to non-Member countries to occur without the consent of the appropriate authorities of the importing country and of any non-Member countries of transit, and unless the hazardous wastes are directed to adequate disposal facilities in the importing country;

VI. The OECD should take the necessary initiatives with respect to the means of implementation of these Conclusions and Recommendations, with a view to making proposals in the form of appropriate OECD instruments and a draft international agreement before the end of 1987;

VII. OECD countries should promote the establishment of appropriate disposal facilities for the management of hazardous wastes at the national level, since such action may serve to reduce the need for transfrontier movement of hazardous wastes;

VIII. The OECD should, in addition, take necessary initiatives to ensure that OECD Member countries satisfy themselves, so far as concerns development or investment projects in which they or their enterprises are involved, that adequate measures are taken for preventing or reducing the generation of hazardous wastes and that adequate facilities exist or are made available for the handling and disposal of such wastes.

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ISSUES CONCERNING CONTROL OF TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

In the development of an OECD system of control of transfrontier movements of hazardous wastes, the following issues should be addressed:

1) Definition and Classification

-- The development of an agreed system for the definition of the properties, characteristics and classification of hazardous wastes, taking account of related work in other fora;

-- The harmonisation of technical standards for management, containment and control of hazardous wastes.

2) Notification, Identification and Control

-- Establishment of an agreed OECD-wide system of notification, identification and control of each transfrontier movement of hazardous wastes. This system should include an agreed consignment note format, a procedure for acknowledging notifications or objecting to movements, and an agreed list of hazardous wastes for all transfrontier movements of such wastes between OECD Member countries;

-- Definition of adequate procedures for transfrontier movements of hazardous substances intended for recycling, in such a way as to minimise the risk of either discouraging the recycling option or mislabelling a transfrontier movement which would result in the system failing to operate properly.

3) Relations with non-Member Countries

-- Development of common OECD principles and procedures with respect to exports of hazardous wastes to non-Member countries, which should be integrated into the OECD system; Member countries should be invited, in the process of developing these principles, to consult with non-Member countries;

-- In consultation with other competent international organisations, the development of workable methods concerning control of movements of hazardous wastes to and from non-Member countries.

4) Legal and Regulatory Framework

-- Assessment of the potential consequences of possible assignment of specific obligations (including insurance obligations) to various parties of interest, such as generators, collectors, transporters, recyclers, disposers, waste brokers, local government and national government;

-- Analysis of the role of insurance, compensation, financial guarantees, etc. in effective control of the transfrontier movements of hazardous wastes.

Due account should be taken of the relevant economic implications and, in particular, of the need:

-- To evaluate appropriate economic instruments in international management and movement of hazardous wastes. Such instruments might include economic incentives and/or disincentives, due account being taken of the Polluter Pays Principle;

-- To assess the economic impacts of prospective policies governing the international management and movement of hazardous wastes on parties of interest.

DECISION-RECOMMENDATION ON EXPORTS OF HAZARDOUS WASTES FROM THE OECD AREA

C(86)64(Final)

(Adopted by the Council on 5th June 1986)

THE COUNCIL,

Having regard to Articles 5 a) and 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14th December 1960;

Having regard to the Decision and Recommendation of the Council of 1st February 1984 on Transfrontier Movements of Hazardous Waste [C(83)180(Final)] and without prejudice to that Decision and Recommendation;

Having regard to the Resolution of the Council of 20th June 1985 on International Cooperation Concerning Transfrontier Movements of Hazardous Wastes [C(85)100], by which it has been decided to develop an international system for effective control of transfrontier movements of hazardous wastes, including an international agreement of a legally binding character;

Considering the European Communities Council Directive of 6th December 1984 on the Supervision and Control within the European Community of the Transfrontier Shipment of Hazardous Waste [84/631/EEC], supplemented by the Decision of the Council of the Council of the European Comunities of 6th March, 1986;

Considering the work carried out within the United Nations Environment Programme on the environmentally sound management of hazardous wastes;

Considering the particular nature of wastes and the distinction between wastes and products which are traded internationally;

Convinced that the exports of hazardous wastes may, if not properly monitored and controlled, result in serious risks to health and the environment;

On the proposal of the Environment Committee:

I. DECIDES that Member countries shall:

i) Monitor and control exports of hazardous wastes to a final destination which is outside the OECD area; and for this purpose shall ensure that their competent authorities are empowered to prohibit such exports in appropriate instances;

ii) Apply no less strict controls on transfrontier movements of hazardous wastes involving non-Member countries than they would on movements involving only Member countries;

iii) Prohibit movements of hazardous wastes to a final destination in a non-Member country without the consent of that country and the prior notification to any transit countries of the proposed movements;

iv) Prohibit movements of hazardous wastes to a non-Member country unless the wastes are directed to an adequate disposal facility in that country.

II. RECOMMENDS that, to implement this Decision, Member countries should:

i) Seek to conclude bilateral or multilateral agreements with non-Member countries to which frequent exports of hazardous wastes are taking place or are foreseen to take place;

ii) Apply the measures set out below concerning the control of exports of hazardous wastes to a final desstination outside the OECD area.

III. INSTRUCTS the Environment Committee to take account of the elements of this Decision-Recommendation in developing the draft international agreement referred to in the Resolution of the Council on International Cooperation Concerning Transfrontier Movements of Hazardous Wastes [C(85)100].

*

* *

MEASURES CONCERNING THE CONTROL OF EXPORTS OF HAZARDOUS WASTES

1. The following measures are designed to facilitate the harmonisation of policies concerning the transfrontier movements of hazardous wastes to a final destination outside the OECD area. They do not prejudice the implementation of stricter measures which have been or might be adopted at national, regional or world level to reduce the dangers associated with the transport and disposal of hazardous wastes.

2. These measures should apply in the absence of a bilateral or multilateral agreement concerning transfrontier movements of hazardous wastes between the exporting Member country and the importing non-Member country concerned, and should be taken into account in the negotiation of such an agreement.

3. Member countries should require, with respect to any export of hazardous wastes to a final destination outside the OECD area, that the measures set out below be taken by the exporter or by the competent authorities of the exporting country.

4. The exporter should:

a) provide the competent authorities of the importing country (and of any transit countries) with at least the same information that he would provide them if they were Member countries;

b) inform the competent authorities of the importing country of any specific disposal methods legally required or forbidden for such wastes in the exporting country;

c) provide to the competent authorities of the exporting country:

• i) the information used by the exporter to assure himself that the proposed disposal operation can be performed in an environmentally sound manner;

•ii) certification that the proposed disposal facility may, under the laws and regulations of the importing country, dispose of the kinds of wastes whose export is proposed;

iii) a copy of an undertaking by the operator of a proposed disposal facility that he will dispose of the wastes as foreseen in the disposal contract, and in the facility specified therein;

•iv) a copy of the information transmitted to the competent authorities of the importing country to obtain their written consent to the imoport and disposal of the wastes;

• v) a copy of the written consent of the competent authorities of the importing country, and confirmation that the competent authorities of any transit countries have received delivery of notification;

d) demand and receive from the disposer documents confirming that the wastes have been handed over to the disposer and disposed of as foreseen, and put these documents at the disposition of the competent authorities of the exporting country.

5. Member countries may choose to charge their competent authorities instead of the exporter with some of the tasks listed above.

6. The competent authorities of the exporting country should:

a) before any final decision is taken, inform the competent authorities of the importing country when they have specific environmental concerns regarding the proposed disposal operation;

b) prohibit the export of the hazardous wastes whenever:

• i) they are not satisfied with the information provided under 4c) above;

•ii) an objection is made by any country of transit and no appropriate alternative route can be found by the exporter;

iii) the proposed disposal operation is not in conformity with applicable international law;

c) prohibit additional exports of hazardous waste to a given destination when the documents specified in 4d) above were not provided to the exporter by the disposer after a previous export to the same destination;

d) notify the exporter promptly whether or not they object to the proposed transfrontier movement;

e) notify the competent authorities of the importing country if they have prohibited the exports of the wastes.

*

* *

Definitions

For the purposes of this Decision-Recommendation:

(a) "Waste" means any material considered as waste or legally defined as waste in a country where it is situated or through or to which it is conveyed;

(b) "Hazardous waste" means any waste other than radioactive waste considered as hazardous or legally defined as hazardous in the country where it is situated or through or to which it is conveyed, because of the potential risk to man or the environment likely to result from an accident or from improper transport or disposal;

(c) "Transfrontier movement of hazardous waste" means any shipment of waste from one country to another, where the waste is considered as being hazardous waste in at least one of the countries concerned. Hazardous waste arising from the normal operation of ships, including slops and residues, shall not be considered a transfrontier movement covered by this Decision and Recommendation;

(d) "Exporting country" means any country from which a transfrontier movement of hazardous waste is initiated or envisaged;

(e) "Importing country" means any country to which a transfrontier movement of hazardous waste takes place or is envisaged for purpose of disposal (treatment, landfill, storage, dumping or incineration at sea);

(f) "Transit country" means any country other than the exporting or importing country across which a transfrontier movement of hazardous waste takes place or is envisaged;

(g) "Exporter" means the generator of the wastes or the person in the exporting country who arranges for exporting the wastes at the request and on behalf of the generator;

(h) "OECD area" means all land or marine areas under the national jurisdiction of any OECD Member country.

DECISION

ON TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTE

C(88)90(Final)

(adopted by the Council on 27th May 1988)

THE COUNCIL,

Having regard to Article 5 a) of the Convention on the Organisation for Economic Co-operation and Development of 14th December 1960;

Having regard to the Decision and Recommendation of the Council of 1st February 1984 on Transfrontier Movements of Hazardous Waste [C(83)180(Final)];

Having regard to the Decision-Recommendation of the Council of 5th June 1986 on Exports of Hazardous Wastes from the OECD Area [C(86)64(Final)];

Having regard to the Resolution of the Council of 20th June 1985 on International Cooperation Concerning Transfrontier Movements of Hazardous Wastes, by which it has been decided to develop an international system for effective control of transfrontier movements of hazardous wastes [C(85)100];

Convinced that the development of such a system requires a clear delineation of the wastes to be included in the system;
On the proposal of the Environment Committee;

I. DECIDES that for the purpose of implementing the above mentioned Council Acts on the control of transfrontier movements of hazardous wastes involving any Member country:

a) the terms "wastes" and "disposal" shall be defined as specified in the Annex, which is an integral part of this Decision;

b) those wastes which are referred to in the above-mentioned Council Acts as Hazardous Wastes shall consist of:

- (i) a core list of wastes as specified in the Annex; and

- (ii) all other wastes which are considered to be or are legally defined as hazardous wastes in the Member country from which these wastes are exported or in the Member country into which these wastes are imported*;

c) Member countries shall ensure that the wastes subject to control are classified in the manner specified in the Annex unless these wastes are subject to a transfrontier movement which takes place entirely among the parties to a bilateral or multilateral agreement or arrangement specifying a different method of classification.

II. DECIDES that the definitions of Waste and Hazardous Waste contained in the above-mentioned Council Acts are hereby repealed.

III. INSTRUCTS the Environment Committee:

a) to take account of this Decision in developing the draft international agreement referred to in the Resolution on International Cooperation Concerning Transfrontier Movements of Hazardous Wastes [C(85)100];

b) to report to the Council after an appropriate period not exceeding three years on the implementation of this Decision and to make any proposals it deems necessary for revisions of the Annex in the light of experience gained in its implementation.

* The Council agreed that, "when implementing paragraph Ib) ii) of this Decision Member countries shall not be obliged to enforce laws other than their own".

ANNEX

A series of seven tables serves to define and classify the wastes to be controlled when subject to transfrontier movements. The tables cover the following:

Table Y - Core list of wastes to be controlled

Table 1 - Reasons why materials are intended for disposal

Table 2 - Disposal operations

Table 3 - Generic types of potentially hazardous wastes

Table 4 - Constituents of potentially hazardous wastes

Table 5 - List of hazardous characteristics

Table 6 - Activities which may generate potentially hazardous wastes

DEFINITIONS

For the purposes of this Decision:

1. WASTES are materials other than radioactive materials intended for DISPOSAL, for reasons specified in Table 1.

2. DISPOSAL means any of the operations specified in Table 2.

CORE LIST

For the purposes of this Decision those wastes which belong to any of the categories described in Table Y shall be controlled unless such wastes do not possess any of the hazardous characteristics listed in Table 5.

CLASSIFICATION - INTERNATIONAL WASTE IDENTIFICATION CODE

Tables 1 to 6 contain code numbers which, taken together, provide a means of complete characterisation of wastes, through an International Waste Identification Code, in order to facilitate their control from generation to disposal.

The International Waste Identification Code (IWIC) is obtained as follows:

1. Choose the one or at most two major reason(s) why the wastes are intended for disposal from the list in Table 1. Mark down the reason(s) as Q... plus the code number(s).

2. Indicate the method which has been selected for disposal of the wastes by choosing the one operation from Table 2 which most closely describes the fate intended for the wastes. Mark down as D... or R... plus the code number from Table 2.A or Table 2.B as appropriate.

3. Decide whether the wastes are liquid (L), sludge (P) or solid (S). Powders are considered to be solids.

4. Select from Table 3, the one descriptor which most closely describes the generic form of the wastes. Mark down this descriptor as L..., P... or S... plus the code number.

5. Examine Table 4 ; either the wastes do or do not contain one or more of the constituents listed. If none, mark down as code "CO". If one, mark down the appropriate code number. If more than one, then the best estimate for the group of no more than three entries in terms of descending hazard should be made. This estimate is meant to be qualitative and based upon the best judgment of the generator of the wastes; physical testing is not implied.

6. Select from Table 5 the one or at most two major potential hazard(s) presented by the wastes. Mark down as H... plus the code number(s).

7. Select from Table 6 the most appropriate single activity generating the wastes. Mark down as A... plus the code number.

8. The order of the International Waste Identification Code is the same as Tables 1 through 6. Main heads of the coding system are set off by double oblique lines. Where more than one entry from a specific Table is applicable, the plus sign (+) is used to separate the codes for each such entry:

Q + //D,R //L,P,S //C + + //H + //A

(N.B. See Appendix 2 for additional notes regarding the International Waste Identification Code.)

TABLE Y

CORE LIST OF WASTES TO BE CONTROLLED

Y1	Clinical wastes from medical care in hospitals, medical centers and clinics
Y2	Wastes from the production and preparation of pharmaceutical products
Y3	Waste pharmaceuticals, drugs and medicines
Y4	Wastes from the production, formulation and use of biocides and phytopharmaceuticals
Y5	Wastes from the manufacture, formulation and use of wood preserving chemicals
Y6	Wastes from the production, formulation and use of organic solvents
Y7	Wastes from heat treatment and tempering operations containing cyanides
Y8	Waste mineral oils unfit for their originally intended use
Y9	Waste oil/water, hydrocarbon/water mixtures, emulsions
Y10	Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCB’s) and/or polychlorinated terphenyls (PCT’s) and/or polybrominated biphenyls (PBB’s)
Y11	Waste tarry residues arising from refining, distillation and any pyrolytic treatment
Y12	Wastes from production, formulation and use of inks, dyes, pigments, paints, laquers, varnish
Y13	Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
Y14	Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
Y15	Wastes of an explosive nature not subject to other legislation
Y16	Wastes from production, formulation and use of photographic chemicals and processing materials
Y17	Wastes resulting from surface treatment of metals and plastics

Wastes having as constituents:

Y18	Metal carbonyls
Y19	Beryllium; beryllium compounds
Y20	Hexavalent chromium compounds
Y21	Copper compounds
Y22	Zinc compounds
Y23	Arsenic; arsenic compounds
Y24	Selenium; selenium compounds
Y25	Cadmium; cadmium compounds
Y26	Antimony; antimony compounds
Y27	Tellurium; tellurium compounds
Y28	Mercury; mercury compounds
Y29	Thallium; thallium compounds
Y30	Lead; lead compounds
Y31	Inorganic fluorine compounds excluding calcium fluoride
Y32	Inorganic cyanides
Y33	Acidic solutions or acids in solid form
Y34	Basic solutions or bases in solid form
Y35	Asbestos (dust and fibres)
Y36	Organic phosphorous compounds
Y37	Organic cyanides
Y38	Phenols; phenol compounds including chlorophenols
Y39	Ethers
Y40	Halogenated organic solvents
Y41	Organic solvents excluding halogenated solvents
Y42	Organohalogen compounds excluding inert polymerized materials and other substances referred to in this Table.
Y43	Any material contaminated with any congenor of polychlorinated dibenzo-furan
Y44	Any material contaminated with any congenor of polychlorinated dibenzo-p-dioxin

TABLE 1

REASONS WHY MATERIALS ARE INTENDED FOR DISPOSAL

Q1• Production residues not otherwise specified below

Q2• Off-specification products

Q3• Products whose date for appropriate use has expired

Q4• Materials spilled, lost or having undergone other mishap including any materials, equipment etc. contaminated as a result of the mishap

Q5• Materials contaminated or soiled as a result of planned actions, [e.g., residues from cleaning operations, packing materials, containers, etc.]

Q6• Unusable parts, [e.g., reject batteries, exhausted catalyst, etc.]

Q7• Substances which no longer perform satisfactorily, [e.g., contaminated acids, contaminated solvents, exhausted tempering salts, etc.]

Q8• Residues of industrial processes, [e.g., slags, still bottoms, etc.]

Q9• Residues from pollution abatement processes, [e.g., scrubber sludges, baghouse dusts, spent filters, etc.]

Q10• Machining/finishing residues, [e.g. lathe turnings, mill scales, etc.]

Q11• Residues from raw materials processing, [e.g., mining residues, oil field slops, etc.]

Q12• Adulterated materials, [e.g. oils contaminated with PCB, etc.]

Q13• Any materials, substances or products whose use has been banned by law in the country of exportation

Q14• Products for which there is no further use, [e.g., agriculture, household, office, commercial and shop discards, etc.]

Q15• Materials, substances or products resulting from remedial actions with respect to contaminated land

Q16• Any materials, substances or products which the generator or exporter declares to be wastes and which are not contained in the above categories

TABLE 2

DISPOSAL OPERATIONS

(Table 2 is divided into two sections)

2.A OPERATIONS WHICH DO NOT LEAD TO THE POSSIBILITY OF RESOURCE RECOVERY, RECYCLING, RECLAMATION, DIRECT RE-USE OR ALTERNATIVE USES

Table 2.A is meant to encompass all such disposal operations which occur in practice, whether or not they are adequate from the point of view of environmental protection.

D1	Deposit into or onto land, [e.g., landfill, etc.]
D2	Land treatment, [e.g., biodegradation of liquid or sludgy discards in soils, etc.]
D3	Deep injection, [e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.]
D4	Surface impoundment, [e.g., placement of liquid or sludge discards into pits, ponds or lagoons, etc.]
D5	Specially engineered landfill, [e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.]
D6	Release into a water body except seas/oceans
D7	Release into seas/oceans including sea-bed insertion
D8	Biological treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations in Table 2.A
D9	Physico chemical treatment not specified elsewhere in this Table which results in final compounds or mixtures which are discarded by means of any of the operations in Table 2.A, [e.g., evaporation, drying, calcination, etc.]
D10	Incineration on land
D11	Incineration at sea
D12	Permanent storage, [e.g., emplacement of containers in a mine, etc.]
D13	Blending or mixing prior to submission to any of the operations in Table 2.A
D14	Repackaging prior to submission to any of the operations in Table 2.A
D15	Storage pending any of the operations in Table 2.A

2.B OPERATIONS WHICH MAY LEAD TO RESOURCE RECOVERY, RECYCLING, RECLAMATION, DIRECT RE-USE OR ALTERNATIVE USES

Table 2.B is meant to encompass all such operations with respect to materials considered to be or legally defined as hazardous wastes and which otherwise would have been destined for operations included in Table 2.A.

R1	Use as a fuel (other than in direct incineration) or other means to generate energy
R2	Solvent reclamation/regeneration
R3	Recycling/reclamation of organic substances which are not used as solvents
R4	Recycling/reclamation of metals and metal compounds
R5	Recycling/reclamation of other inorganic materials
R6	Regeneration of acids or bases
R7	Recovery of components used for pollution abatement
R8	Recovery of components from catalysts
R9	Used oil re-refining or other reuses of previously used oil
R10	Land treatment resulting in benefit to agriculture or ecological improvement
R11	Uses of residual materials obtained from any of the operations numbered R1-R10
R12	Exchange of wastes for submission to any of the operations numbered R1-R11
R13	Accumulation of material intended for any operation in Table 2B

TABLE 3

GENERIC TYPES OF POTENTIALLY HAZARDOUS WASTES*
(THESE MAY BE LIQUID, SLUDGE OR SOLID IN FORM)

Code Number**	
1	Clinical wastes from medical care in hospitals, medical centers and clinics
2	Wastes from the production and preparation of pharmaceutical products
3	Waste pharmaceuticals, drugs and medicines
4	Wastes from the production, formulation and use of biocides and phytopharmaceuticals
5	Wastes from the manufacture, formulation and use of wood preserving chemicals
6	Wastes from the production, formulation and use of organic solvents
7	Wastes from heat treatment and tempering operations containing cyanides
8	Waste mineral oils unfit for their originally intended use
9	Waste oil/water, hydrocarbon/water mixtures, emulsions
10	Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCB's) and/or polychlorinated terphenyls (PCT's) and/or polybrominated biphenyls (PBB's)
11	Waste tarry residues arising from refining, distillation and any pyrolytic treatment
12	Wastes from production, formulation and use of inks, dyes, pigments, paints, laquers, varnish
13	Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives
14	Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on man and/or the environment are not known
15	Wastes of an explosive nature not subject to other legislation
16	Wastes from production, formulation and use of photographic chemicals and processing materials
17	Wastes resulting from surface treatment of metals and plastics
• •	Materials which contain any of the constituents
• •	listed in Table 4 and consisting of:
18	Animal or vegetable soaps, fats, waxes
19	Non-halogenated organic substances not employed as solvents
20	Inorganic substances without metals

* If liquid, preface "L" is used
If sludge, preface "P" is used
If solid, preface "S" is used

** Items 1 to 17 in Table 3 correspond to items Y1 to Y17 in Table Y.

21	Ashes and/or cinders
22	Soil, sand, clay including dredging spoils
23	Non-cyanidic tempering salts
24	Metallic dust, powder
25	Spent catalyst materials
26	Liquids or sludges containing metals
27	Residue from pollution control operations, except (28) and (29)
28	Scrubber sludges
29	Sludges from water purification plants and waste water treatment plants
30	Decarbonization residue
31	Ion-exchange column residue
32	Sewage sludges
33	Wastewaters not otherwise taken into account within Table 3
34	Residue from cleaning of tanks and/or equipment
35	Contaminated equipment
36	Contaminated containers, whose contents included one or more of the constituents listed in Table 4
37	Batteries and other electrical cells
38	Vegetable oils
39	Materials which have been segregated from households and which also exhibit any of the characteristics listed in Table 5
40	Any other wastes which contain any of the constituents listed in Table 4

TABLE 4

CONSTITUENTS OF POTENTIALLY HAZARDOUS WASTES

Code Number •	Constituents*:
C1	Beryllium; beryllium compounds [Y19]
C2	Vanadium compounds
C3	Hexavalent chromium compounds [Y20]
C4	Cobalt compounds
C5	Nickel compounds
C6	Copper compounds [Y21]
C7	Zinc compounds [Y22]
C8	Arsenic; arsenic compounds [Y23]
C9	Selenium; selenium compounds [Y24]
C10	Silver compounds
C11	Cadmium; cadmium compounds [Y25]
C12	Tin compounds
C13	Antimony; antimony compounds [Y26]
C14	Tellurium; tellurium compounds [Y27]
C15	Barium; Barium compounds; excluding barium sulfate
C16	Mercury; mercury compounds [Y28]
C17	Thallium; thallium compounds [Y29]
C18	Lead; lead compounds [Y30]
C19	Inorganic sulphides
C20	Inorganic fluorine compounds excluding calcium fluoride [Y31]
C21	Inorganic cyanides [Y32]
C22	The following alkaline or alkaline earth metals:lithium, sodium, potassium, calcium, magnesium in uncombined form
C23	Acidic solutions or acids in solid form [Y33]
C24	Basic solutions or bases in solid form [Y34]
C25	Asbestos (dust and fibres) [Y35]
C26	Organic phosphorus compounds [Y36]
C27	Metal carbonyls [Y18]
C28	Peroxides
C29	Chlorates
C30	Perchlorates
C31	Azides
C32	Polychlorinated biphenyls (PCB’s) and/or polychlorinated terphenyls (PCT’s) and/or polybrominated biphenyls (PBB’s) [Y10]
C33	Pharmaceutical or veterinary compounds
C34	Biocides and phyto-pharmaceutical substances
C35	Infectious substances
C36	Creosotes
C37	Isocyanates, thiocyanates
C38	Organic cyanides [Y37]
C39	Phenols; phenol compounds including chlorophenols [Y38]
C40	Ethers [Y39]
C41	Halogenated organic solvents [Y40]
C42	Organic solvents, excluding halogenated solvents [Y41]
C43	Organohalogen compounds, excluding inert polymerized materials and other substances referred to in this Table [Y42]

* The correspondance with Table Y is indicated in brackets.

C44 Aromatic compounds; polycyclic and heterocyclic
• organic compounds
C45 Organic nitrogen compounds; especially aliphatic amines
C46 Organic nitrogen compounds; especially aromatic amines
C47 Substances of an explosive character [Y15]
C48 Sulphur organic compounds
C49 Any material contaminated with any congenor of polychlorinated dibenzo-furan [Y43]
C50 Any material contaminated with any congenor of polychlorinated dibenzo-p-dioxin [Y44]
C51 Hydrocarbons and their oxygen, nitrogen and/or sulphur compounds not otherwise taken into account in Table 4

TABLE 5

LIST OF HAZARDOUS CHARACTERISTICS

Code Number* • • • Characteristics

H1••Explosive

••An explosive substance is a solid or liquid substance (or mixture of substances) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.

H3••Inflammable liquids

••The word "flammable" has the same meaning as "inflammable".

••Inflammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc. but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off an inflammable vapour at temperatures of not more than 60.5 C, closed-cup test, or not more than 65.6 C, open-cup test. (Since the results of open-cup tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition.)

H4.1 •Inflammable Solids

••Solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.

H4.2•Substances or Wastes Liable to Spontaneous Combustion

••Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up in contact with air, and being then liable to catch fire.

H4.3•Substances or Wastes which, in Contact with Water Emit Inflammable Gases

••Substances or wastes which, by interaction with water, are liable to become spontaneously inflammable or to give off inflammable gases in dangerous quantities.

* Corresponds to hazard class numbering system included in the United Nations Recommendations on the Transport of Dangerous Goods (Orange Book) for H1 through H9; omissions of H2, H7 and H9 are deliberate.

H5••Oxidizing

••Substances which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials. (Organic substances which contain the bivalent-0-0-structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.)

H6 ••Toxic (Poisonous)

••Substances or wastes that have been found to be fatal to humans in low doses or which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic hazards, including carcinogenicity.

H8••Corrosives

••Substances or wastes which, by chemical action, will cause reversible or irreversible damage when in contact with living tissue, or, in case of leakage, will materially damage, or even destroy, other items or the means of transport, or can liberate corrosive fumes when in contact with air or water.

H10••Liberation of toxic gases in contact with air or water

••Substances or wastes which, by interaction with air or water, are liable to give off toxic gases in dangerous quantities.

H11••Capable, by any means, after disposal, of yielding another material, e.g., leachate, which possesses any of the characteristics listed above.

H12••Ecotoxic

••Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.

The potential hazards posed by certain types of wastes are not yet fully documented; objective tests to define quantitatively these hazards do not exist. Further research is necessary in order to develop means to characterise potential hazards posed to man and/or the environment by these wastes. Standardized tests have been derived with respect to pure substances and materials. Many Member countries have developed tests which can be applied to materials destined for disposal by means of operations listed in Table 2 in order to decide if these materials exhibit any of the characteristics listed in Table 5.

TABLE 6

ACTIVITIES WHICH MAY GENERATE
POTENTIALLY HAZARDOUS WASTES

Agriculture - Farming Industry

A100•• Agriculture, forest management
  A101•• Cultivation
  A102•• Animal husbandry
  A103•• Forest management and forest exploitation (lumbering)

A110•• Animal and vegetable products from the food sector
  A111•• Meat industry, slaughterhouses, butchery
  A112•• Dairy industry
  A113•• Animal and vegetable oil and grease industry
  A114•• Sugar industry
  A115•• Others

A120•• Drink industry
  A121•• Distillation of alcohol and spirits
  A122•• Brewing of beer
  A123•• Manufacture of other drinks

A130•• Manufacture of animal feed

Energy

A150•• Coal industry
  A151•• Production and preparation of coal and coal products
  A152•• Coking operations

A160•• Petroleum industry
  A161•• Extraction of petroleum and natural gas
  A162•• Petroleum refining
  A163•• Storage of petroleum and products derived from refining of natural gas

A170•• Production of electricity
  A171•• Central thermal facilities
  A172•• Central hydraulic facilities
  A173•• Central nuclear facilities
  A174•• Other central electricity facilities

A180•• Production of water

Metallurgy - Mechanical and Electrical Engineering

A200•• Extraction of metallic ores

A210•• Ferrous metallurgy
  A211•• Cast iron production (coke oven)
  A212•• Raw steel production (pig iron)
  A213•• Primary steel transformation (rolling mills)

A220•• Non-ferrous metallurgy
  A221•• Production of alumina
  A222•• Aluminium metallurgy
  A223•• Metallurgy of lead and zinc
  A224•• Metallurgy of precious metals
  A225•• Metallurgy of other non-ferrous metals
  A226•• Ferro-alloy industry
  A227•• Manufacture of electrodes

A230•• Foundry and metalworking operations
  A231•• Ferrous metal foundries
  A232•• Non-ferrous metal foundries
  A233•• Metalworking (not including machining)

A240•• Mechanical, electrical and electronic construction
  A241•• Machining
  A242•• Thermal treatment
  A243•• Surface treatment
  A244•• Application of paint
  A245•• Assembly, wiring
  A246•• Production of batteries and dry cells
  A247•• Production of electrical wires and cables (cladding, plating, insulation)
  A248•• Production of electronic components

Non-Metallic Minerals - Construction Materials - Ceramics - Glass

A260•• Mining and quarrying of non-metallic minerals

A270•• Construction materials, ceramics, glass
  A271•• Production of lime, cement and plaster
  A272•• Fabrication of ceramic products
  A273•• Fabrication of products containing asbestos-cement
  A274•• Production of other construction materials
  A275•• Glass industry

A280•• Building, building sites, landscaping

Primary Chemical Industry

A300•• Production of primary chemicals and chemical feedstocks
  A301•• Chlorine industry
  A351•• Fertilizer fabrication
  A401•• Other manufacturing generators of primary inorganic industrial chemicals
  A451•• Petroleum and coal industry
  A501•• Manufacture of basic plastic materials
  A551•• Other primary organic chemical manufacture
  A601•• Chemical treatment of fats; fabrication of basic substances for detergents
  A651•• Fabrication of pharmaceuticals, pesticides, biocides, weed killers
  A669•• Other manufacture of finished chemicals

Industries producing products based upon primary chemicals

A700•• Production of inks, varnish, paints, glues
  A701•• Production of ink
  A702•• Production of paint
  A703•• Production of varnish
  A704•• Production of glue

A710•• Fabrication of photographic products
  A711•• Production of photosensitive plates
  A712•• Fabrication of products for photographic treatments

A720•• Perfume industry and fabrication of soap and detergent products
  A721•• Fabrication of soap products
  A722•• Fabrication of detergent products
  A723•• Fabrication of perfume products

A730•• Finished rubber and plastic materials
  A731•• Rubber industry
  A732•• Finished plastic materials

A740•• Fabrication of products based upon asbestos

A750•• Production of powders and explosives

Textiles and Leathers - Various Wood Based and Furniture Industries

A760•• Textile and clothing industry
  A761•• Combing and carding of textile fibres
  A762•• Threading, spinning, weaving
  A763•• Bleaching, dyeing, printing
  A764•• Clothing manufacture

A770•• Leather and hide industry
  A771•• Tanneries, tanning
  A772•• Fur trade
  A773•• Manufacture of shoes and other leacher products

A780•• Wood and furniture industry
  A781•• Sawmills, production of wood panels
  A782•• Manufacture of wood and furniture products

A790•• Various related industries

Paper - Cardboard - Printing

A800•• Paper and cardboard industry
  A801•• Fabrication of paper pulp
  A802•• Manufacture of paper and cardboard
  A803•• Finished goods of paper and cardboard

A810•• Printing, publishing, photographic laboratories
  A811•• Printing, publishing
  A812•• Photographic laboratories

Commercial Services

A820•• Laundries, bleaching services, dyers

A830•• Business enterprise

A840•• Transport, automobile dealers and repair facilities
  A841•• Automobile dealers and automobile repair facilities
  A842•• Transportation

A850•• Hotels, cafés, restaurants

General Services

A860•• Health
  A861•• Health (Hospitals, medical centres, nursing homes, laboratories)

A870•• Research
  A871•• Research (including research laboratories)

A880•• Administrative activities, offices

Households

A890•• Households

Pollution Control - Waste Disposal

A900•• Cleaning and maintenance of public areas

A910•• Urban water treatment facilities

A920•• Urban waste treatment

A930•• Treatment of industrial effluents and wastes
- A931•• Incineration
- A932•• Physico-chemical treatment
- A933•• Biological treatment
- A934•• Solidification of wastes
- A935•• Collection and/or pretreatment of wastes
- A936•• Landbased disposal above, on or below the surface

Regeneration - Recovery

A940•• Regeneration activities
- A941•• Regeneration of oils
- A942•• Regeneration of solvents
- A943•• Regeneration of ion exchange resins

A950•• Recovery activities

RESOLUTION

ON CONTROL OF TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

C(89)1(Final)

(adopted by the Council on 3Oth January 1989)

THE COUNCIL,

Having regard to the Decision and Recommendation of the Council of 1st February 1984 on Transfrontier Movements of Hazardous Waste [C(83)180(Final)];

Having regard to the Decision-Recommendation of the Council of 5th June 1986 on Exports of Hazardous Wastes from the OECD Area [C(86)64(Final)];

Having regard to the Decision of the Council of 27th May 1988 on Transfrontier Movements of Hazardous Wastes [C(88)90(Final)];

Having regard to the Resolution of the Council of 20th June 1985 on International Cooperation Concerning Transfrontier Movements of Hazardous Wastes, by which it has been decided to develop an international system for effective control of transfrontier movements of hazardous wastes [C(85)100];

Considering that substantial progress has been made in the development of a draft International Agreement in response to Council Resolution C(85)100;

Considering that a Global Convention concerning the control of Transboundary Movements of Hazardous Wastes is being negotiated within the framework of the United Nations Environment Programme;

Recognising that there is an essential interrelationship between global and regional systems to control transfrontier movements of hazardous wastes and that there is a need for continuing complementary activity;

Acknowledging the measures already taken by several Member countries to adopt and implement bilateral and regional systems of control;

Welcoming the fact that the work carried out by the OECD in order to promote common approaches by Member countries has contributed to the ongoing negotiations of the Global Convention, and affirming its intention to continue these efforts in the coming weeks with a view to arriving at the early conclusion of this Convention;

Considering that a Diplomatic Conference has been scheduled for 20 March 1989 for the purposes of adoption of the above-mentioned Global Convention;

Affirming strong support for the early conclusion and implementation of the Global Convention;

I. AGREES that an international systems for the control of transfrontier movements of hazardous wastes should be adopted and implemented as soon as practicable;

II. NOTES with satisfaction the substantial progress made in the Environment Committee in the development of a draft International Agreement which would provide for an international system for effective control of transfrontier movements of hazardous wastes;

III. NOTES that pending full implementation of a Global Convention concerning transfrontier movements of hazardous wastes, or, failing that, full implementation of an OECD International Agreement, Member countries will make special efforts to ensure that existing legal and administrative instruments for controlling transfrontier movements of hazardous wastes are applied, consistent with the spirit and intent of the draft OECD International Agreement and the draft Global Convention. In so doing, particular attention will be given to measures intended to protect public health and the environment in developing countries;

IV. AGREES to reconsider in Spring 1989, in light of the outcome of the above-mentioned Diplomatic Conference, the draft International Agreement, in particular its comprehensive notification system, for the purposes of establishing and implementing an international system for control of transfrontier movements of hazardous wastes;

V. INSTRUCTS the Environment Committee to review at its 48th Session in Spring 1989 the results achieved at the Diplomatic Conference and to report to the Council with appropriate recommendations;

VI. INSTRUCTS the Environment Committee to consider at its 48th Session the implications and modalities of further restricting hazardous waste exports to developing countries pending entry into force of a Global Convention.

RESOLUTION

ON THE CONTROL OF TRANSFRONTIER MOVEMENTS OF HAZARDOUS WASTES

C(89)112(Final)

(adopted by the Council on 18th-20th July 1989)

THE COUNCIL,

Having regard to the Decision and Recommendation of the Council of 1st February 1984 on Transfrontier Movements of Hazardous Waste [C(83)180(Final)];

Having regard to the Decision-Recommendation of the Council of 5th June 1986 on Exports of Hazardous Wastes from the OECD Area [C(86)64(Final)];

Having regard to the Decision of the Council of 27th May 1988 on Transfrontier Movements of Hazardous Wastes [C(88)90(Final)];

Having regard to the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, adopted in Basel on 22nd March 1989;

Considering that steps should be taken as soon as possible to implement a number of principles that are contained in these Instruments;

I. WELCOMES efforts at the global level to establish a system to control the transfrontier movements of hazardous wastes;

II. INSTRUCTS the Environment Committee to keep under review progress made towards implementation of the Basel Convention, to consider the need for further action by OECD Member countries, and to report periodically to the Council thereon;

III. INSTRUCTS the Environment Committee to continue working towards the goal of harmonizing waste management programmes, in particular in the area of waste minimisation, pollution prevention and recycling;

IV. REQUESTS the Secretary-General to promote closer co-operation between experts in the fields of transport and waste management;

V. INSTRUCTS the Environment Committee to collect and collate statistics on transfrontier movements of hazardous wastes involving Member countries;

VI. INSTRUCTS the Environment Committee to monitor progress in harmonizing the notification systems and procedures for the control of transfrontier movements of hazardous wastes and, where appropriate, to contribute towards such progress;

VII. AUTHORISES the Secretary-General to make available to the Executive Director of UNEP, upon his request, the results achieved within the OECD in various technical fields related to hazardous waste management for the purposes of effective implementation of the Basel Convention.

DECISION-RECOMMENDATION

ON THE REDUCTION OF TRANSFRONTIER MOVEMENTS OF WASTES

C(90)178/FINAL

(adopted by the Council on 31st January 1991)

THE COUNCIL,

Having regard to Article 5a) and 5b) of the Convention on the Organisation for Economic Co-operation and Development of 14th December 1960;

Having regard to the Decision and Recommendation of the Council of 1st February 1984 on Transfrontier Movements of Hazardous Waste [C(83)180(Final)] which requires Member countries to control transfrontier movements of hazardous wastes;

Having regard to the Decision-Recommendation of the Council of 5th June 1986 on Exports of Hazardous Wastes from the OECD Area [C(86)64(Final)] which, inter alia, prohibits movements of hazardous wastes to a final destination in a non-member country without the consent of that country and the prior notification to any transit countries of the proposed movements;

Having regard to the Decision of the Council of 27th May 1988 on Transfrontier Movements of Hazardous Wastes [C(88)90(Final)] which defines "wastes", identifies those wastes referred to as hazardous wastes in relevant Council Acts, and sets out a classification system for wastes subject to transfrontier movements;

Having regard to the Resolution of the Council of 18th-20th July 1989 on the Control of Transfrontier Movements of Hazardous Wastes [C(89)112(Final)];

Having regard to the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, adopted in Basel on 22nd March 1989;

Having regard to the Resolution of the Council of Ministers of the European Economic Community of 7th May 1990 on Waste Policy;

Noting that each Party to the Basel Convention of 22nd March 1989 is obligated to "take appropriate measures to ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes, that shall be located, to the extent possible, within it, whatever the place of their disposal";

Recognizing the desirability of appropriately controlled international trade in waste materials* destined for environmentally sound operations leading

* For purposes of this Decision-Recommendation, the terms "wastes" and "waste materials" include all wastes subject to controls under terms of the Basel Convention of 22nd March 1989 and all other wastes subject to transfrontier movements control of the exporting and importing Member countries.

to resource recovery, recycling, reclamation, direct re-use or alternative uses (hereafter referred to as "Recovery Operations");

Convinced of the need to reduce transfrontier movements of all wastes to the minimum consistent with environmentally sound and efficient management;

Convinced that the basic principles for the management of wastes must be, first, to prevent and reduce, as far as possible, the generation of such wastes and, secondly, to increase the proportion of such wastes that is recycled or re-used;

Noting that many industrial sectors are already implementing waste recovery techniques in an economically and environmentally satisfactory fashion, and convinced that further efforts in this direction are necessary and should be encouraged;

Recognising that efficient and environmentally sound management of wastes may justify some transfrontier movements of such wastes in order to make use of adequate recovery or disposal facilities in other countries;

Noting that most Member countries and the European Economic Community have become signatories to the Basel Convention of 22nd March 1989;

Convinced that international cooperation concerning the management of wastes should be founded upon agreements at governmental level;

Noting that some Member countries and the European Economic Community have already taken action to prevent the export of wastes subject to control under terms of the Basel Convention of 22nd March 1989 toward developing countries;

On the proposal of the Environment Committee;

I. DECIDES that, for wastes not to be subjected to recovery operations, Member countries shall:

a) consistent with environmentally sound and efficient management practices insofar as possible dispose in their own territory the wastes produced therein;

b) take action to reduce their transfrontier movements to the minimum justified by environmentally sound and efficient management;

c) on a continuing basis identify those wastes that cannot be managed in an environmentally sound manner within their territory. They shall encourage the establishment of additional and appropriate waste management infrastructure so that these wastes can be managed within their own territory and if such infrastructure cannot be established they shall cooperate by means of bilateral or regional plans agreed at governmental level meant to ensure environmentally sound management of the wastes.

II. DECIDES that Member countries shall cooperate in the collection of harmonised data on waste imports and exports and make these data publicly available consistent with their national laws on the confidentiality of business information.

III. RECOMMENDS that Member countries cooperate in developing and implementing the guidelines concerning reduction of transfrontier movements of wastes set out in the Annex to this Decision-Recommendation and in collecting the necessary data.

IV. RECOMMENDS that the initial plans referred to in Paragraph I(c) of this Decision-Recommendation be substantially completed prior to 1st January 1995.

V. INSTRUCTS the Environment Committee to consider further harmonisation of Member country lists of wastes, the transfrontier movements of which are subject to control.

VI. INSTRUCTS the Environment Committee in cooperation with other relevant OECD bodies, in particular the Trade Committee and the High Level Group on Commodities, to develop and implement a programme of activities concerning wastes destined for recovery operations. This programme, which shall take into account the work of, and shall be conducted in cooperation with, other international organisations and bodies, in particular the United Nations Environment Programme, the UN Economic Commission for Europe and the Commission of the European Communities, should in particular:

a) Clarify the definition of wastes and characterize those wastes which may require differing levels of control;

b) Identify and assess environmentally sound and economically efficient practices for recovery operations;

c) Develop means to appropriately determine quantities of wastes subjected to recovery operations as compared to those finally disposed;

d) Establish the current and potential role of the uses of wastes in substituting for primary raw materials and in preserving natural resources;

e) Delineate such controls as may be appropriate for the transfrontier movements of waste materials destined for recovery operations;

f) After assessment of the results of elements a) through e), if appropriate, develop the basis of a multilateral agreement pursuant to Article 11 of the Basel Convention of 22nd March 1989 which would govern transfrontier movements of these wastes exclusively among Member countries.

VII. INSTRUCTS the Environment Committee and other relevant Committees to review periodically action taken by Member countries in pursuance of this Decision-Recommendation.

DECISION

CONCERNING THE CONTROL OF TRANSFRONTIER MOVEMENTS OF WASTES DESTINED FOR RECOVERY OPERATIONS*

C(92)39/FINAL

(adopted by the Council on 30th March 1992)

THE COUNCIL,

Having regard to Article 5a) of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

Having regard to the Decision and Recommendation of the Council of 1 February 1984 on Transfrontier Movements of Hazardous Waste [C(83)180(Final)] which requires Member countries to control transfrontier movements of hazardous wastes;••

Having regard to the Decision of the Council of 27 May 1988 on Transfrontier Movements of Hazardous Wastes [C(88)90(Final)] which defines "wastes", identifies those wastes referred to as hazardous wastes in relevant Council Acts, and sets out a classification system for wastes subject to transfrontier movements;

Having regard to the Decision-Recommendation of the Council of 31 January 1991 on the Reduction of Transfrontier Movements of Wastes [C(90)178/FINAL] which, inter alia, calls for delineation of such controls as may be appropriate for the transfrontier movement of wastes destined for recovery operations, clarification of the definition of such wastes and characterization of those wastes which may require differing levels of control;

Having regard to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, adopted on 22 March 1989, and noting that most Member countries and the European Economic Community have become signatories to this Convention;

Desiring to conclude an arrangement or agreement under Article 11 of that Convention;

Noting that recovery of valuable raw materials from wastes has been an integral part of the international economic system and that well established international markets exist for the collection and processing of such wastes;

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* Japan abstained.

Noting further that many industrial sectors are already implementing waste recovery techniques in an economically and environmentally satisfactory manner, thus protecting limited virgin sources of raw materials, and convinced that further efforts in this direction are necessary and should be encouraged;

Recognising that efficient and environmentally sound management of wastes may justify some transfrontier movements of such wastes in order to make use of adequate recovery facilities in other countries;

Convinced however that, pursuant to the obligations set forth in the relevant Council Acts and compatible with the provisions of the Basel Convention, an appropriate system should be implemented to control transfrontier movements of those wastes destined for recovery operations;

Convinced that all persons involved in any contracts or arrangements for transfrontier movements of wastes destined for recovery operations must have the appropriate legal status to ensure environmentally sound management of these wastes; and

Recognizing that work is now in progress within the United Nations Environment Programme concerning the environmentally sound management of hazardous wastes.

On the proposal of the Environment Committee:

I. DECIDES that Member countries shall control transfrontier movements of wastes destined for recovery operations within the OECD area as specified in Annex 1 which is an integral part of this Decision.

II. INSTRUCTS the Environment Committee in co-operation with other relevant OECD bodies, in particular the Trade Committee, to review periodically the control system and the lists of wastes set out in Annex 1, taking into account the criteria listed in Annex 2, and to make any proposals it deems necessary for revisions of Annex 1.

III. INSTRUCTS the Environment Committee in co-operation with other relevant OECD bodies to review annually action taken by Member countries in pursuance of this Decision.

IV. REQUESTS the Secretary General to transmit this Decision to the Executive Director of the United Nations Environment Programme and the Interim Secretariat of the Basel Convention.

Annex 1

I. DEFINITIONS

For the purposes of this Decision:

WASTES are as defined in OECD Council Decision C(88)90(Final) of 27 May 1988.

RECOVERY OPERATIONS mean activities leading to resource recovery, recycling, reclamation, direct re-use or alternative uses as listed in Table 2B of the Annex of OECD Council Decision C(88)90(Final) of 27 May 1988.

TRANSFRONTIER MOVEMENT means any shipment of wastes destined for recovery operations from an area under the national jurisdiction of one OECD Member country to an area under the national jurisdiction of another OECD Member country.

RECOVERY FACILITY means an entity which, under applicable domestic law, is operating or is authorized to operate in the importing country to receive wastes and to perform recovery operations on them.

INTERNATIONAL WASTE IDENTIFICATION CODE ("IWIC") is the classification system specified and described in OECD Council Decision C(88)90(Final) of 27 May 1988.

EXPORTING COUNTRY means any OECD Member country from which a transfrontier movement of wastes is planned or has commenced.

IMPORTING COUNTRY means any OECD Member country to which a transfrontier movement of wastes is planned or takes place for the purpose of submitting the wastes to recovery operations therein.

COUNTRY OF TRANSIT means any OECD Member country other than the exporting or importing country across which a transfrontier movement of wastes is planned or takes place.

CONCERNED COUNTRIES means the exporting and importing OECD Member countries and any OECD Member countries of transit.

OECD AREA means all land or marine areas under the national jurisdiction of any OECD Member country.

COMPETENT AUTHORITIES means the regulatory authorities of concerned countries having jurisdiction over transfrontier movements of wastes destined for recovery operations.

PERSON means any natural or legal person whether public or private.

NOTIFIER means the person under the jurisdiction of the exporting country who has, or will have at the time the planned transfrontier movement commences, possession or other forms of legal control of the wastes and who proposes their transfrontier movement for the ultimate purpose of submitting them to recovery operations.

CONSIGNEE means the person to whom possession or other form of legal control of the waste is assigned at the time the waste is received in the importing country.

RECOGNISED TRADER means a person who, with appropriate authorisation of concerned countries, acts in the role of principal to purchase and subsequently sell wastes; this person has legal control of such wastes from time of purchase to time of sale; such a person may act to arrange and facilitate transfrontier movements of wastes destined for recovery operations.

GENERATOR means a person whose activities create wastes.

II. GENERAL PROVISIONS

(1) All of the following conditions shall apply to transfrontier movements of wastes subject to this Decision:

(a) The wastes shall be destined for recovery operations within a facility which, under applicable domestic law, is operating or is authorized to operate in the importing country;

(b) The transfrontier movements shall be carried out under terms of applicable international transport agreements. (Appendix 1 contains an illustrative list of such agreements);

(c) Any transit of wastes through a non-member country shall be subject to all applicable international and national laws and regulations.

(2) A three-tiered system serves to delineate controls to be applied to such transfrontier movements:

(a) "Green" tier

- Wastes destined for recovery operations included on the green list shall move among OECD Member countries toward recovery operations subject to all existing controls normally applied in commercial transactions. These provisions shall not apply to wastes on this list which are contaminated by other materials to an extent which increases the risks associated with the wastes sufficiently to render them appropriate for inclusion in the amber or red lists, when taking into account the criteria in Annex 2.

(b) "Amber" tier

- Wastes destined for recovery operations included in the amber list shall be subject to the control system set out in Section IV of this Annex.

(c) "Red" tier

- Wastes destined for recovery operations included in the red list shall be subject to the controls indicated in Section V of this Annex.

(3) The criteria listed in Annex 2 must be taken into account for evaluating wastes for inclusion on the green, amber or red lists. In accord with provisions of this Decision, items may be added, altered or deleted periodically. Subject to Section III (2) no single criterion shall be used in isolation in assigning wastes to the lists.

(4) • While the lists are intended to be exclusive, a specific waste included in either the amber or red lists might not be legally defined or considered to be a hazardous waste in the exporting country because the competent authorities of that country are satisfied that it does not exhibit any of the hazardous characteristics listed in Table 5 of OECD Council Decision C(88)90(Final) as determined using national procedures*. If, however, this waste is legally defined or considered to be a hazardous waste by the importing country, then all of the requirements set forth in Section IV or Section V - whichever is applicable - shall apply as follows: the importing country shall assume the obligations of the exporting country under these Sections, in particular as regards the notification requirements. A copy of the notification form must be transmitted to the competent authorities of the exporting country. Member countries operating under provisions of this paragraph shall promptly inform the OECD Secretariat of the waste(s) involved and applicable legislative requirements.

(5) • Member countries who prescribe the use of certain tests and testing procedures in order to determine whether a waste exhibits one or more of the hazardous characteristics listed in Table 5 of OECD Council Decision C(88)90(Final) shall inform the OECD Secretariat concerning which tests and testing procedures are being so utilized; and, if possible, which wastes would or would not be legally defined or considered to be hazardous wastes based upon application of these national procedures.

(6) • This Decision does not prejudice the right of Member countries to control certain wastes which have been assigned to the green list as if those wastes had been assigned to one of the other lists, in conformity with domestic legislation and the rules of international law, in order to protect human health and the environment. In such cases, Member countries exercising this right shall immediately inform the OECD secretariat citing the specific waste(s) and applicable legislative requirements.

* The potential hazards posed by certain types of wastes are not yet fully documented; tests to define quantitatively these hazards do not exist. Further research is necessary in order to develop means to characterise potential hazards posed to man and/or the environment by these wastes. Standardized tests have been derived with respect to pure substances and materials. Many Member countries have developed tests which can be applied to materials destined for disposal by means of operations listed in Table 2 of OECD Council Decision C(88)90(Final) in order to decide if these materials exhibit any of the hazardous characteristics listed in Table 5 of that Decision.

(7) Wastes which are destined for recovery operations but have not yet been assigned to the green, amber or red lists shall be eligible for transfrontier movements pursuant to this Decision subject to the following conditions:

i) Member countries shall identify such wastes and bring them to the attention of the review mechanism established by operative paragraphs II and III of this Decision;

ii) such wastes shall be promptly examined by the Review Mechanism in order to assign them to the appropriate list;

iii) pending assignment to a list, such wastes shall be subject to the controls required for the transfrontier movements of wastes by the domestic legislation of the concerned countries in order that no country is obliged to enforce laws other than its own;

iv) however, if such wastes exhibit a hazardous characteristic listed in Table 5 of OECD Council Decision C(88)90(Final) as determined using national procedures and any applicable international agreements, such wastes shall be subject to controls applicable to the red tier.

(8) If two or more lots of wastes are mixed and/or otherwise subjected to physical or chemical transformation operations, the person who performs these operations shall be deemed to be the generator of the new wastes resulting from these operations.

III. GREEN TIER

(1) Specific items included in the green list are shown under their corresponding main categories. Only the items specified under a main category and not the main categories themselves are part of the green list.

(2) Wastes may not be included in the green list if they exhibit any of the hazardous characteristics listed in Table 5 of OECD Council Decision C(88)90(Final). The procedures in force in each Member country for determining whether a specific waste does or does not exhibit one or more of these characteristics are taken into account in placing or not placing a waste onto the green list.

(3) If green list wastes are re-exported, responsibilities of the exporting country under other relevant agreements or conventions shall transfer to the country initiating the re-export, and shall not apply to the original exporting country.

(4) Green list of wastes

The green list of wastes is set out at Appendix 3.

IV. AMBER TIER

(1) Conditions

Transfrontier movements of wastes under the amber control system may only occur under the terms of a valid written contract, or chain of contracts, or equivalent arrangements between facilities controlled by the same legal entity, starting with the notifier and terminating at the recovery facility. All persons involved in the contracts, or arrangements shall have appropriate legal status.

Such contracts shall include provisions for financial guarantees in accordance with applicable national or international law requirements. Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes in cases where arrangements for the shipment and the recovery operations cannot be carried out as foreseen. These contracts shall also specify which party to the contract shall assume responsibility for alternate management of the wastes. These contracts shall also specify and, as the case may be, require from the consignee the notification required in 3(a) below (Re-export to a Third Country).

In such cases :

i) the person having actual possession or physical control over the wastes shall immediately inform the notifier and the competent authorities of the exporting and importing countries and, if the wastes are located in a country of transit, the competent authorities of that country;

ii) the person specified in the contract shall assume responsibility for the adequate management of the wastes in compliance with applicable laws and regulations including, if necessary, their return. The competent authorities of the concerned countries shall require that the necessary actions are carried out within a limited period of time, and shall not oppose, hinder or prevent the return of those wastes to the exporting country.

(2) Control System

Procedures are provided under the amber control system for the following two cases:

i) transactions which require consent for specific shipments to a recovery facility; and

ii) transactions involving specific recovery facilities to which the competent authorities having jurisdiction over such recovery facilities have granted general pre-consent concerning the reception of certain wastes.

- Case (1): Provisions concerning transactions requiring specific consent.

(a) Prior to commencement of the transfrontier movement, the notifier shall provide written notification to the competent authorities of the concerned countries; this notification shall include all of the information listed in Appendix 2.A. The competent authorities of the exporting country may, in accord with domestic laws, decide to transmit this notification instead of the notifier.

(b) The competent authorities of the importing country, upon receipt of the completed notification referred to in paragraph (a) above, shall transmit an acknowledgement to the notifier with a copy to the competent authorities of other concerned countries within three (3) working days of their receiving the notification.

(c) The competent authorities of the exporting and importing countries shall have thirty (30) days to object in accord with their respective domestic laws to the proposed transfrontier movement. The 30-day period shall commence upon issuance of the acknowledgement referred at paragraph (b) above.

(d) Countries of transit may, in accord with domestic laws, object to the transfrontier movement entering their territory.

(e) Any objection by any of the concerned countries must be provided in writing to the notifier and to the competent authorities of other concerned countries within the 30-day period.

(f) If no objection has been lodged, the transfrontier movement may commence after the 30-day period has passed. Tacit consent, however, expires within one (1) calendar year from that date.

(g) The competent authorities of the concerned countries may decide to provide written consent in a period less than the 30 days. The transfrontier movement may commence immediately after all necessary consents are received.

(h) Written consent or objection may be provided by post, or by telefax followed by post. Such consent shall expire within one (1) calendar year unless otherwise specified.

(i) Each transfrontier movement shall be accompanied by a tracking document which includes the information listed in Appendix 2.

(j) Within three (3) days of the receipt of the wastes by the recovery facility, the recovery facility shall provide a signed copy of the tracking document to the notifier and to the competent authorities of the concerned countries. The recovery facility shall retain the original of the tracking document for three (3) years.

(k) In cases where essentially similar wastes (e.g. those having essentially similar physical and chemical characteristics) are to be sent periodically to the same recovery facility by the same notifier, the competent authorities of the concerned countries may elect to accept one notification for these wastes for a period of up to one year:

- i) Such acceptance may be renewed for further periods of up to one year each;

- ii) Revocation of this acceptance may be accomplished by means of official notice to the notifier from any of the competent authorities of the concerned countries. Notice of revocation of acceptance for shipments previously granted under this provision shall be given to the competent authorities of all concerned countries by the competent authorities of the country that revokes such acceptance.

Case (2): Provisions relating to pre-consent by competent authorities for shipments to specific recovery facilities.

(a) Competent authorities having jurisdiction over specific recovery facilities may decide not to raise objections concerning shipments of certain types of wastes to a specific recovery facility. Such decisions can be limited to a specified period of time; however, they may be revoked at any time.

(b) Competent authorities who elect this option shall inform the OECD Secretariat of the recovery facility name, address, technologies employed, waste types to which the pre-consent applies, and the period covered. Any revocations must also be notified to the OECD Secretariat.

(c) All proposed transfrontier movements to such facilities shall require notification; the notifier shall provide to the competent authorities of the concerned countries the information listed in Appendix 2.A. Such notification shall arrive prior to the time the shipment is dispatched.

(d) The competent authorities of the exporting and transit country may, in accord with their domestic laws, prohibit or otherwise restrict any such transfrontier movement.

(e) In instances where competent authorities acting under terms of their domestic laws are required to review the contracts referred to in (1) above (Conditions), these authorities shall so inform the OECD Secretariat. In such cases, the notification information plus the contract(s) or portions thereof to be reviewed must arrive seven (7) days prior to the time the shipment is dispatched in order that such review may be appropriately performed.

(f) Paragraphs (i), (j) and (k) of Case (1) shall apply.

(3) Additional provisions relating to re-export to a third country

(a) Re-export from an importing country of wastes subject to the amber control system may only occur following notification by a notifier in the importing country to the competent authorities of the initial exporting country, which shall be acknowledged within three (3) working days of receipt. The competent authorities of the initial exporting country shall have thirty (30) days to object to the proposed movement. The 30-day period shall commence upon issue of the acknowledgement referred to above. If no objection has been lodged, the transfrontier movement may commence after the 30-day period has passed. The competent authorities may decide to provide written consent in a period of less than 30 days. The transfrontier movement may commence immediately after such consent is received. Written consent may be provided by telefax in the first instance, followed by post if required.

(b) Re-export to a country outside the OECD area shall be fully subject to, and in accord with, all international agreements and arrangements to which the importing OECD Member country is a party.

(4) Provisions relating to recognised traders

(a) A recognised trader who takes physical custody of the wastes and intends to perform any of the operations in Table 2 B of OECD Council Decision C(88)90(Final) shall require appropriate authorisation from its competent authorities to act as a recovery facility.

(b) A recognised trader may act as a notifier or consignee for wastes with all the responsibilities associated with being a notifier or consignee.

(c) The contracts referred to in (1) above (Conditions) shall:

- i) clearly identify: the generator of each type of waste; each person who shall have physical custody of the wastes; each person who shall have legal control of the wastes; and the recovery facility;

- ii) provide that all requirements of this Decision are taken into account and are legally binding on all parties to the contracts.

(d) The notification information called for at Appendix 2A shall include a signed declaration by the notifier that the appropriate contracts are in place and are legally enforceable in all concerned countries.

(e) Competent authorities of the exporting and importing countries may under terms of their domestic laws require the notifier to provide copies of such contracts or portions thereof.

(f) Any information contained in the contracts provided under terms of paragraph (e) above shall be held as strictly confidential in accordance with, and to the extent allowable by, domestic laws.

(5) Provisions relating to wastes designated for exchange or accumulation prior to submission to recovery operations designated R1-R11 in Table 2B of OECD Council Decision C(88)90(Final)

(a) The notification information included in Appendix 2A shall also indicate that exchange or storage is foreseen for the wastes covered by the notification.

(b) The competent authorities of concerned countries may request that the recovery facility where operations designated R1-R11 in Table 2B of Council Decision C(88)90(Final) will occur be identified.

(c) The tracking document referred to in Appendix 2B shall accompany the wastes to the recovery facility noted in paragraph (b) above which shall then comply with paragraph (j) of (2) above (Control System).

(6) Amber list of wastes

The amber list of wastes is set out at Appendix 4.••

V. RED TIER

(1) The red list represents certain specific substances which, even moved in an adequately managed way, nevertheless must be controlled in a more stringent way than provided for by the amber control system. Wastes included in the red list shall be subject to the same controls as applied to wastes included in the amber list (see Section IV), and shall move in accord with Case (1), except that the importing and any transit countries must provide written consent prior to commencement of the transfrontier movement.

(2) Red list of wastes

The red list of wastes is set out at Appendix 5.

VI. ACTIONS TO PROMOTE HARMONISED IMPLEMENTATION

(1) Member countries individually, and as a group acting through the Review Mechanism established in this Decision, shall take appropriate steps toward improving the green, amber and red lists of wastes and toward uniform application of this Decision.

(2) Member countries shall cooperate in efforts aimed at:

i) developing procedures for evaluating the criteria in Annex 2 to determine to which list a waste should be assigned; and

ii) harmonising procedures for determining whether a waste exhibits any of the hazardous characteristics listed in Table 5 of OECD Council Decision C(88)90(Final).

(3) Member countries shall cooperate to identify and assess steps taken toward optimization of environmentally sound and economically efficient practices for recovery operations of each waste.

(4) When Sections II(4), II(6) and II(7) must be resorted to, Member countries shall cooperate to ensure that the provisions of this Decision are fully complied with.

(5) The OECD Secretariat shall circulate to all Member countries the information provided in accordance with this Decision, in particular under Sections II(4), II(5), II(6) and II(7).

Appendix 1

INTERNATIONAL TRANSPORT AGREEMENTS

1. Chicago Convention:
Convention on International Civil Aviation (1944) Annex 18 which deals with the carriage of dangerous goods by air
(T.I.: Technical Instructions for the Safe Transport of Dangerous Goods by Air);

2. ADR:
European Agreement concerning the International Carriage of • Dangerous Goods by Road (1957);

3. ADNR:
Regulations of the Carriage of Dangerous Substances on the Rhine (1970).

4. MARPOL Convention:
International Convention for the Prevention of Pollution from Ships (1973/1978);

5. SOLAS Convention:
International Convention for the Safety of Life at Sea (1974);

6. IMDG Code:
International Maritime Dangerous Goods Code;
(incorporated into SOLAS since 1985)

7. COTIF:
Convention concerning the International Carriage of Goods by Rail (1985);

8. RID: Regulation on the International Carriage by Rail of Dangerous Goods (1985) [Annex I to COTIF];

Appendix 2

NOTIFICATION AND TRACKING INFORMATION

A. INFORMATION TO BE SUBMITTED UPON NOTIFICATION

1)• Serial number or other accepted identifier of notification form.

2)• Notifier name, address, telephone, telefax.

3)• Recovery facility name, address, telephone, telefax, and technologies employed

4)• Consignee if not the recovery facility, address, telephone, telefax

5)• Intended carrier(s) and/or their agents.

6)• Country of export and relevant competent authority

7)• Countries of transit and relevant competent authorities.

8)• Country of import and relevant competent authority.

9)• Is this a single notification or a general notification? If general, period of validity requested.

10)• Date foreseen for commencement of transfrontier movement.

11)• Certification that any applicable insurance or other financial guarantee is or shall be in force covering the transfrontier movement.

12)• Designation of waste type(s) on the appropriate list (amber or red) and their description(s), probable total quantity of each, and an accepted uniform classification code (such as the IWIC) for each.

13)• Certification of the existence of written contract or chain of contracts or equivalent arrangement as required by this Decision.

14)• Certification by notifier that the information is complete and correct to the best of his knowledge.

B. TRACKING DOCUMENT

• Include all information at A. above plus

(a)• Date shipment was dispatched

(b)• Shipper (if not notifier), address, telephone, telefax

(c)• Actual carrier(s)

(d)• Means and mode of transport including types of packaging

(e)• Any special precautions to be taken by carrier(s)

(f)• Declaration by notifier that no objection has been lodged by the competent authorities of all concerned countries. This declaration requires signature of the notifier.

(g)• Appropriate signatures for each custody transfer.

C. ALL OF THIS INFORMATION SHALL BE PROVIDED ON A FORM TO BE DEVELOPED FOR USE WITHIN THE OECD AREA

D. NOTE. Under terms of domestic legislation, some Member countries require information in addition to that included in A and B above in order to assess aspects of the environmentally sound management of wastes. Affected countries shall inform the OECD Secretariat and provide a list of the additional information needed.

GREEN LIST OF WASTES+
(revised May 1993)

Regardless of whether or not wastes are included on this list, they may not be moved as Green Tier wastes if they are contaminated by other materials to an extent which (a) increases the risks associated with the waste sufficiently to render it appropriate for inclusion in the amber or red lists, when taking into account the criteria in Annex 2, or (b) prevents the recovery of the waste in an environmentally sound manner.

GA. METAL AND METAL-ALLOY WASTES IN METALLIC, NON DISPERSIBLE FORM++

• •		The following waste and scrap of precious metals and their alloys :
GA010 •	ex 711210	- of gold
GA020	ex 711220	- of platinum (the expression "platinum" includes platinum, iridium, osmium, palladium, rhodium and ruthenium)
GA030 •	ex 711290	- of other precious metal, e.g., silver

• • N.B. Mercury is specifically excluded as a contaminant of these metals or their alloys or amalgams.

• •

The following ferrous waste and scrap of iron or steel:

GA040 •	720410	- Waste and scrap of cast iron
GA050 •	720421	- Waste and scrap of stainless steel
GA060	720429	- Waste and scrap of other alloy steels
GA070 •	720430	- Waste and scrap of tinned iron or steel
GA080 •	720441	- Turnings, shavings, chips, milling waste, filings, trimmings and stampings, whether or not in bundles
GA090 •	720449	- Other ferrous waste and scrap
GA100 •	720450	- Remelting scrap ingots
GA110 •	ex 730210	- Used iron and steel rails

+ Whenever possible, the code number of the Harmonized Commodity Description and Coding System, established by the Brussels Convention of 14th June 1983 under the auspices of the Customs Co-operation Council (Harmonized System Code) is listed opposite an entry. This code may apply to both wastes and products. This Decision does not include items which are not wastes. Therefore, the code - used by customs officials in order to facilitate their procedures as well as by others - is only provided here to help in identifying wastes that are listed and subject to this Decision. However, corresponding official Explanatory Notes as issued by the Customs Co-operation Council should be used as interpretative guidance to identify wastes covered by generic headings. The indicative "ex" identifies a specific item contained within a heading of the Harmonized System Code.

The code in bold in the first column is the OECD code: it consists of two letters (one for the list: Green, Amber or Red and one for the category of waste: A,B,C...) followed by a number.

++ "Non-dispersible" does not include any wastes in the form of powder, sludge, dust or solid items containing encased hazardous waste liquids.

•The following waste and scrap of non-ferrous metals and their alloys:

GA120•	740400	Copper waste and scrap •	•••
GA130•	750300	Nickel waste and scrap	
GA140•	760200	Aluminium waste and scrap	
GA150•	ex 780200	Lead waste and scrap	
GA160•	790200	Zinc waste and scrap	
GA170•	800200	Tin waste and scrap	
GA180•	ex 810191	Tungsten waste and scrap	
GA190•	ex 810291	Molybdenum waste and scrap	
GA200•	ex 810310	Tantalum waste and scrap	
GA210	810420	Magnesium waste and scrap	
GA220	ex 810510	Cobalt waste and scrap	
GA230•	ex 810600	Bismuth waste and scrap	
GA240•	ex 810710	Cadmium waste and scrap	
GA250•	ex 810810	Titanium waste and scrap	
GA260•	ex 810910	Zirconium waste and scrap	
GA270•	ex 811000	Antimony waste and scrap	
GA280•	ex 811100	Manganese waste and scrap	
GA290	ex 811211	Beryllium waste and scrap	
GA300•	ex 811220	Chromium waste and scrap	
•			
GA310•	ex 811230	Germanium waste and scrap	
GA320•	ex 811240	Vanadium waste and scrap	

•ex 811291	Wastes and scrap of	
GA330•	•	- Hafnium
GA340•	•	- Indium
GA350•	•	- Niobium
GA360•	•	- Rhenium
GA370•	•	- Gallium
GA380		- Thallium

GA390•	ex 284430	Thorium waste and scrap	

GA400	ex 280490	Selenium waste and scrap
GA410	ex 280450	Tellurium waste and scrap
GA420	ex 280530	Rare earths waste and scrap

GB. METAL BEARING WASTES ARISING FROM MELTING, SMELTING AND REFINING OF METALS

GB010	262011	Hard zinc spelter
GB020		Zinc containing drosses:
GB021		- Galvanizing slab zinc top dross (> 90% Zn)
GB022		- Galvanizing slab zinc bottom dross (> 92% Zn)
GB023		- Zinc die casting dross (> 85% Zn)
GB024		- Hot dip galvanizers slab zinc dross (batch) (> 92% Zn)
GB025		- Zinc skimmings
GB030		Aluminium skimmings
GB040	ex 262090	Slags from precious metals and copper processing for further refining

GC. OTHER WASTES CONTAINING METALS

GC010		Electrical assemblies consisting only of metals or alloys
GC020		Electronic scrap (e.g. printed circuit boards, electronic components, wire, etc.) and reclaimed electronic components suitable for base and precious metal recovery
GC030	ex 890800	Vessels and other floating structures for breaking up, properly emptied of any cargo and other materials arising from the operation of the vessel which may have been classified as a dangerous substance or waste
GC040		Motor vehicle wrecks, drained of liquids
GC050		Spent catalysts:
GC051		- fluid catalytic cracking (FCC) catalysts
GC052		- precious metal bearing catalysts
GC053		- transition metal catalysts (e.g. chromium, cobalt, copper, iron, nickel, manganese, molybdenum, tungsten, vanadium, zinc).
GC060	261800	Granulated slag arising from the manufacture of iron and steel
GC070	ex 261900	Slag arising from the manufacture of iron or steel*

* This entry covers the use of such slags as a source of titanium dioxide and vanadium.

GD. WASTES FROM MINING OPERATIONS: THESE WASTES TO BE IN NON-DISPERSIBLE FORM

GD010	ex 250490	Natural graphite waste
GD020	ex 251400	Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise
GD030	252530	Mica waste
GD040	ex 252930	Leucite, nepheline and nepheline syenite waste
GD050	ex 252910	Feldspar waste
GD060	ex 252921 ex 252922	Fluospar waste
GD070	ex 281122	Silica wastes in solid form excluding those used in foundry operations

GE. GLASS WASTE IN NON-DISPERSIBLE FORM

GE010	ex 700100	Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses
GE020		Fibre glass wastes

GF. CERAMIC WASTES IN NON-DISPERSIBLE FORM

GF010		Ceramic wastes which have been fired after shaping, including ceramic vessels (before and/or after use)
GF020	ex 811300	Cermet wastes and scrap (metal ceramic composites)
GF030		Ceramic based fibres not elsewhere specified or included

GG. OTHER WASTES CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND ORGANIC MATERIALS

GG010		Partially refined calcium sulphate produced from flue gas desulphurisation (FGD)
GG020		Waste gypsum wallboard or plasterboard arising from the demolition of buildings
GG030	ex 2621	Bottom ash and slag tap from coal fired power plants
GG040	ex 2621	Coal fired power plants fly ash

GG050•	•	Anode butts of petroleum coke and/or bitumen
GG060•	ex 2803•	Spent activated carbon
GG070•	310320	Basic slag arising from the manufacture of iron or steel suitable for phosphate fertilizer and other use
GG080•	ex 262100	Slag from copper production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g. DIN 4301 and DIN 8201) mainly for construction and abrasive applications
GG090•	•	Sulphur in solid form
GG100•	•	Limestone from the production of calcium cyanamide (having a pH less than 9)
GG110	ex 262100	Neutralized red mud from alumina production
GG120•	•	Sodium, potassium, calcium chlorides
GG130•	•	Carborundum (silicon carbide)
GG140•	•	Broken concrete
GG150•	ex 262090	Lithium-Tantalum and Lithium-Niobium containing glass scraps

GH. SOLID PLASTIC WASTES:

• Including, but not limited to:

GH010•	3915•	Waste, parings and scrap of plastics of :
GH011•	ex 391510	- polymers of ethylene
GH012•	ex 391520	- polymers of styrene
GH013•	ex 391530	- polymers of vinyl chloride
GH014	ex 391590	- polymers or co-polymers e.g.:
•	•	•. polypropylene
•	•	•. polyethylene terephthalate
•	•	•. acrylonitrile copolymer
•	•	•. butadiene copolymer
•	•	•. styrene copolymer
•	•	•. polyamides
•	•	•. polybutylene terephthalates
•	•	•. polycarbonates
•	•	•. polyphenylene sulphides
•	•	•. acrylic polymers
•	•	•. paraffins (C10-C13) *
•	•	•. polyurethane (not containing chlorofluorocarbons)
•	•	

* These cannot be polymerised and are used as plasticisers.

• • •. polysiloxalanes (silicones)
• • •. polymethyl methacrylate
• • •. polyvinyl alcohol
• • •. polyvinyl butyral
• • •. polyvinyl acetate
• • •. polymers of fluorinated ethylene (Teflon, PTFE)

GH015•ex 391590 -•resins or condensation products e.g.:
• • •. urea formaldehyde resins
• • •. phenol formaldehyde resins
• • •. melamine formaldehyde resins
• • •. epoxy resins
• • •. alkyd resins
• • •. polyamides

GI. PAPER, PAPERBOARD AND PAPER PRODUCT WASTES:

GI010•	4707•	Waste and scrap of paper or paperboard:
GI011 •	470710	- of unbleached kraft paper or paperboard or of corrugated paper or paperboard
GI012	470720	- of other paper or paperboard, made mainly of bleached chemical pulp, not colored in the mass
GI013	470730	- of paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)
GI014•	470790	- other, including but not limited to:
• •		1) laminated paperboard
• •		2) unsorted waste and scrap

GJ. TEXTILE WASTES:

GJ010•	5003•	Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock)
GJ011•	500310	- not carded or combed
GJ012•	500390	- other
GJ020•	5103•	Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock
GJ021•	510310	- noils of wool or of fine animal hair
GJ022•	510320	- other waste of wool or of fine animal hair
GJ023•	510330	- waste of coarse animal hair
GJ030•	5202•	Cotton waste (including yarn waste and garnetted stock)
GJ031•	520210	- yarn waste (including thread waste)
GJ032•	520291	- garnetted stock
GJ033•	520299	- other
GJ040	530130	Flax tow and waste

GJ050•	ex 530290	Tow and waste (including yarn waste and garnetted stock) of true hemp (Cannabis sativa L.)
GJ060	ex 530390	Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)
GJ070•	ex 530490	Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agave
GJ080•	ex 530519	Tow, noils and waste (including yarn waste and garnetted stock) of coconut
GJ090	ex 530529	Tow, noils and waste (including yarn waste and garnetted stock) of abaca (Manila hemp or Musa textilis Nee)
GJ100•	ex 530599	Tow, noils and waste (including yarn waste and garnetted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included
GJ110•	5505•	Waste (including noils, yarn waste and garnetted stock) of man-made fibres
GJ111•	550510	- of synthetic fibres
GJ112•	550520	- of artificial fibres
GJ120•	630900	Worn clothing and other worn textile articles
GJ130•	ex 6310•	Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials
GJ131•	ex 631010	- sorted
GJ132	ex 631090	- other•••

GK. RUBBER WASTES:

GK010•	400400	Waste, parings and scrap of rubber (other than hard rubber) and granules obtained therefrom
GK020•	401220	Used pneumatic tyres
GK030•	ex 401700	Waste and scrap of hard rubber (for example, ebonite)

GL. UNTREATED CORK AND WOOD WASTES:

GL010•	ex 440130	Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms
GL020•	450190	Cork waste; crushed, granulated or ground cork

•GM. WASTES ARISING FROM AGRO-FOOD INDUSTRIES

GM010•ex	2301•	Dried, sterilized and stabilized flours, meals and pellets, of meat or meat offal, of fish or of crustaceans, molluscs or other aquatic invertebrates, unfit for human consumption but fit for animal feed or other purposes; greaves
GM020	2302•	Bran, sharps and other residues, whether or not in the form of pellets derived from the shifting, milling or other working of cereals or of leguminous plants
GM030•	2303•	Residues of starch manufacture and similar residues, beet-pulp, bagasse and other waste of sugar manufacture, brewing or distilling dregs and waste, whether or not in the form of pellets
GM040•	2304•	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soya-bean oil
GM050•	2305•	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of ground-nut (peanut) oil
GM060•	2306•	Oil-cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of vegetable fats or oils not elsewhere specified or included
GM070•ex	2307•	Wine lees
GM080•ex	2308•	Dried and sterilized vegetable waste, residues and byproducts, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included
GM090•	152200	Degras; residues resulting from the treatement of fatty substances or animal or vegetable waxes
•		
GM100•	050690	Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised
GM110•ex	051191	Fish waste
GM120	180200	Cocoa shells, husks, skins and other cocoa waste

GN. WASTES ARISING FROM TANNING AND FELLMONGERY OPERATIONS AND • LEATHER USE

GN010•ex	050200	Waste of pigs', hogs' or boars' bristles and hair or of badger hair and other brush making hair

GN020	ex 050300	Horsehair waste, whether or not put up as a layer with or without supporting material
GN030	ex 050590	Waste of skins and other parts of birds, with their feathers or down, of feathers and parts of feathers (whether or not with trimmed edges) and down, not further worked than cleaned, disinfected or treated for preservation
GN040	ex 411000	Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles, excluding leather sludges

GO. OTHER WASTES CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND INORGANIC MATERIALS

GO010	ex 050100	Waste of human hair
GO020		Waste straw
GO030		Deactivated fungus mycelium from penicillin production to be used as animal feed
GO040		Waste photographic film base and waste photographic film not containing silver
GO050		Single use cameras without batteries

AMBER LIST OF WASTES+
(revised May 1993)

Regardless of whether or not wastes are included on this list, they may not be moved as Amber Tier wastes if they are contaminated by other materials to an extent which (a) increases the risks associated with the waste sufficiently to render it appropriate for inclusion in the red list, when taking into account the criteria in Annex 2, or (b) prevents the recovery of the waste in an environmentally sound manner.

AA. METAL BEARING WASTES

AA010	ex 261900	Dross, scalings and other wastes from the manufacture of iron and steel++
AA020	ex 262019	Zinc ashes and residues++
AA030	262020	Lead ashes and residues++
AA040	ex 262030	Copper ashes and residues++
AA050	ex 262040	Aluminium ashes and residues++
AA060	ex 262050	Vanadium ashes and residues++
AA070	262090	Ashes and residues++ containing metals or metal compounds not elsewhere specified or included
AA080		Thallium waste and residues++
AA090	ex 280480	Arsenic waste and residues++
AA100	ex 280540	Mercury waste and residues++

+ Whenever possible, the code number of the Harmonized Commodity Description and Coding System, established by the Brussels Convention of 14th June 1983 under the auspices of the Customs Co-operation Council (Harmonized System Code) is listed opposite an entry. This code may apply to both wastes and products. This Decision does not include items which are not wastes. Therefore, the code - used by customs officials in order to facilitate their procedures as well as by others - is only provided here to help in identifying wastes that are listed and subject to this Decision. However, corresponding official Explanatory Notes as issued by the Customs Co-operation Council should be used as interpretative guidance to identify wastes covered by generic headings. The indicative "ex" identifies a specific item contained within a heading of the Harmonized System Code.

  The code in bold in the first column is the OECD code: it consists of two letters (one for the list: Green, Amber or Red and one for the category of waste: A,B,C...) followed by a number.

++ This listing includes wastes in the form of ash, residue, slag, dross, skimming, scaling, dust, powder, sludge and cake, unless a material is expressly listed elsewhere.

AA110•	•		Residues from alumina production not elsewhere specified or included
AA120•	•		Galvanic sludges
AA130•	•		Liquors from the pickling of metals
AA140•	•		Leaching residues from zinc processing, dusts and sludges such as jarosite, hematite, goethite, etc.
AA150•	•		Precious metal bearing residues in solid form which contain traces of inorganic cyanides
AA160•	•		Precious metal ash, sludge, dust and other residues such as:
AA161•	•		- ash from incineration of printed circuit boards
AA162•	•		- photographic film ash
AA170•	•		Lead-acid batteries, whole or crushed
AA180•	•		Used batteries or accumulators, whole or crushed, other than lead-acid batteries, and waste and scrap arising from the production of batteries and accumulators, not elsewhere specified or included

AB. WASTES CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS, WHICH MAY • CONTAIN METALS AND ORGANIC MATERIALS

AB010•	262100		Slag, ash and residues++, not elsewhere specified or included
AB020•	•		Residues arising from the combustion of municipal/household wastes
AB030•	•		Wastes from non-cyanide based systems which arise from surface treatment of metals
AB040•	ex 700100		Glass waste from cathode-ray tubes and other activated glasses
•			
AB050•	ex 252921		Calcium fluoride sludge
AB060•	•		Other inorganic fluorine compounds in the form of liquids or sludges
AB070•	•		Sands used in foundry operations
•			
AB080•	•		Waste catalysts not on the green list
AB090•	•		Waste hydrates of aluminium

++ This listing includes wastes in the form of ash, residue, slag, dross, skimming, scaling, dust, powder, sludge and cake, unless a material is expressly listed elsewhere.

AB100•	•	Waste alumina
AB110•	•	Basic solutions
AB120•	•	Inorganic halide compounds, not elsewhere specified or included
AB130•	•	Used blasting grit
AB140•	•	Gypsum arising from chemical industry processes
AB150•	•	Unrefined calcium sulphite and calcium sulphate from flue gas desulphurisation (FGD)

AC. WASTES CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS, WHICH MAY • CONTAIN METALS AND INORGANIC MATERIALS

AC010	ex 271390	Waste from the production/processing of petroleum coke and bitumen, excluding anode butts••
AC020•	•	Asphalt cement wastes
AC030•	•	Waste oils unfit for their originally intended use
AC040•	•	Leaded petrol (gasoline) sludges
AC050•	•	Thermal (heat transfer) fluids
AC060•	•	Hydraulic fluids
AC070•	•	Brake fluids
AC080•	•	Antifreeze fluids
AC090•	•	Wastes from production, formulation and use of resins, latex, plasticisers, glues and adhesives
AC100•	ex 391590	Nitrocellulose
AC110•	•	Phenols, phenol compounds including chlorophenol in the form of liquids or sludges
AC120•	•	Polychlorinated naphthalenes
AC130•	•	Ethers
AC140•	•	Triethylamine catalysts for setting foundry sands
AC150•	•	Chlorofluorocarbons
AC160•	•	Halons
AC170•	•	Treated cork and wood wastes

AC180 ex 411000 Leather dust, ash, sludges and flours

AC190 Fluff - light fraction from automobile shredding

AC200 Organic phosphorous compounds

AC210 Non-halogenated solvents

AC220 Halogenated solvents

AC230 Halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations

AC240 Wastes arising from the production of aliphatic halogenated hydrocarbons (such as chloromethanes, dichloro-ethane, vinyl chloride, vinylidene chloride, allyl chloride and epichlorhydrin)

AC250 Surface active agents (surfactants)

AC260 Liquid pig manure; faeces

AC270 Sewage sludge

AD. WASTES WHICH MAY CONTAIN EITHER INORGANIC OR ORGANIC CONSTITUENTS

AD010 Wastes from the production and preparation of pharmaceutical products

AD020 Wastes from the production, formulation and use of biocides and phytopharmaceuticals

AD030 Wastes from the manufacture, formulation and use of wood preserving chemicals

Wastes that contain, consist of or are contaminated with any of the following:

AD040 - inorganic cyanides, excepting precious metal-bearing residues in solid form containing traces of inorganic cyanides

AD050 - organic cyanides

AD060 Waste oils/water, hydrocarbons/water mixtures, emulsions

AD070 Wastes from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish

AD080 Wastes of an explosive nature, when not subject to specific other legislation

AD090 Wastes from production, formulation and use of reprographic and photographic chemicals and materials not elsewhere specified or included

AD100		Wastes from non-cyanide based systems which arise from surface treatment of plastics
AD110•	•	Acidic solutions
AD120		Ion exchange resins
AD130•	•	Single use cameras with batteries
AD140•	•	Wastes from industrial pollution control devices for cleaning of industrial off-gases, not elsewhere specified or included
AD150•	•	Naturally occuring organic material used as a filter medium (such as bio-filters)
AD160•	•	Municipal/household wastes+

+ In the Basel Convention household wastes -- defined as an "other waste" -- are controlled when they are subject to transfrontier movements. Therefore under this Decision all household wastes (and not just those which exhibit a hazardous characteristic) will be subject to the procedures in Section IV (Amber Tier). Until exporting countries have the legal authority to control transfrontier movements of household wastes, the provisions in Section II(4) will be applied.

RED LIST OF WASTES
(revised May 1993)

"Containing" or "contamined with", when used in this list, mean that the substance referred to is present to an extent which (a) renders the waste hazardous when taking into account the criteria in Annex 2, or (b) renders it not suitable for submission to a recovery operation.

RA. WASTES CONTAINING PRINCIPALLLY ORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND INORGANIC MATERIALS

RA010 • Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB) and/or polychlorinated terphenyl (PCT) and/or polybrominated biphenyl (PBB), including any other polybrominated analogues of these compounds, at a concentration level of 50mg/kg or more

RA020 • Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolitic treatment of organic materials

RB. WASTES CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND ORGANIC MATERIALS

RB010 • Asbestos (dusts and fibres)

RB020 • Ceramic based fibres of physico-chemical characteristics similar to those of asbestos

RC. WASTES WHICH MAY CONTAIN EITHER INORGANIC OR ORGANIC CONSTITUENTS

Wastes that contain, consist of or are contaminated with any of the following :

RC010 - any congenor of polychlorinated dibenzo-furan

RC020 - any congenor of polychlorinated dibenzo-dioxin

RC030 • Leaded anti-knock compound sludges

RC040 • Peroxides other than hydrogen peroxide

Annex 2

CRITERIA

A) Properties

1) Does the waste normally exhibit any of the hazardous characteristics listed in Table 5 of OECD Council Decision C(88)90(Final)? Furthermore, it is useful to know if the waste is legally defined as or considered to be a hazardous waste in one or more Member countries.

2) Is the waste typically contaminated?

3) What is the physical state of the waste?

4) What is the degree of difficulty of cleanup in the case of accidental spillage or mismanagement?

5) What is the economic value of the waste bearing in mind historical price fluctuations?

B) Management

6) Is there technological capability to recover the waste?

7) Is there a history of adverse environmental incidents arising from transfrontier movements of the waste or associated recovery operations?

8) Is the waste routinely traded through established channels and is that evidenced by commercial classification?

9) Is the waste usually moved internationally under the terms of a valid contract or chain of contracts?

10) What is the extent of reuse and recovery of the waste and how is any portion separated from the waste but not subject to recovery managed?

11) What are the overall environmental benefits arising from the recovery operations?

Appendix 2

NOTES CONCERNING THE INTERNATIONAL WASTE IDENTIFICATION CODE

General Comments

Council Decision C(88)90(Final) of 27 May, 1988 requires Member countries to ensure that wastes subject to control in cases of transfrontier movement be classified by means of an International Waste Identification Code (IWIC) unless these wastes are subject to a transfrontier movement which takes place entirely among the parties to a bilateral or multilateral agreement or arrangement specifying a different method of classification. The IWIC is based upon the six Tables included in Council Decision C(88)90(Final); the full text of which is reproduced in Appendix 1 of this document.

Classification of wastes by means of the International Waste Identification Code (IWIC)

Tables 1 to 6 of the Annex to Council Decision C(88)90(Final) contain code numbers which, taken together, provide a means of complete characterisation of wastes, through an International Waste Identification Code, in order to facilitate their control from generation to disposal.

The International Waste Identification Code (IWIC) is obtained as follows:

1. Choose the one or at most two major reason(s) why the wastes are intended for disposal from the list in Table 1. Mark down the reason(s) as Q... plus the code number(s).

2. Indicate the method which has been selected for disposal of the wastes by choosing the one operation from Table 2 which most closely describes the fate intended for the wastes. Mark down as D... or R... plus the code number from Table 2.A or Table 2.B as appropriate.

3. Decide whether the wastes are liquid (L), sludge (P) or solid (S). Powders are considered to be solids.

4. Select from Table 3, the one descriptor which most closely describes the generic form of the wastes. Mark down this descriptor as L..., P... or S... plus the code number.

5. Examine Table 4 ; either the wastes do or do not contain one or more of the constituents listed. If none, mark down as code "CO". If one, mark down the appropriate code number. If more than one, then the best estimate for the group of no more than three entries in terms of descending hazard should be made. This estimate is meant to be qualitative and based upon the best judgment of the generator of the wastes; physical testing is not implied.

6. Select from Table 5 the one or at most two major potential hazard(s) presented by the wastes. Mark down as H... plus the code number(s).

7. Select from Table 6 the most appropriate single activity generating the wastes. Mark down as A... plus the code number.

8. The order of the International Waste Identification Code is the same as Tables 1 through 6. Main heads of the coding system are set off by double oblique lines. Where more than one entry from a specific Table is applicable, the plus sign (+) is used to separate the codes for each such entry:

Q + //D,R //L,P,S //C + + //H + //A

Examples:

A drum of spent acids used for pickling of metal components from a ferrous metal foundry destined for regeneration could be coded:

Q7//R6/L26//C23//H8//A231

Similarly, contaminated soil from an old gasworks site to be landfilled might be coded:

Q4//D1//S22//C39 + 7 + 6//H6//A935

Anyone who receives one or a set of waste specifications using the IWIC is thus in a position to know the potential hazardous characteristic (H), the activity giving rise (A), the reason for disposal (Q), the generic type (L, P, S) and main constituents (C) of the wastes as well as the disposal method selected (D, R). In effect, a single line of information provides a dossier concerning the batch of wastes without recourse to descriptive language. Use of the IWIC should reduce ambiguity in describing wastes while still allowing for environmental sound decisions to be taken with respect to monitoring and controlling wastes.

Detailed Comments concerning Tables 1 - 6 of Council Decision C(88)90(Final)

Table 1 - Reasons for disposal

1. Table 1 provides a list of sixteen choices for reasons why a discrete batch of materials might be intended for disposal. Several of the entries to Table 1 include a few examples; the remainder are self-explanatory. Certain overlaps and ambiguities inevitably occur between various entries. Despite these overlaps, the exporter should be able to select one or at most two choices which most closely resemble the reason(s) why a discrete batch of materials was intended for disposal. More than two choices is not allowed by the IWIC.

2. If the entry at Q13 is applicable, it must be included as a reason. With respect to other entries, the exporter is in the best position to most accurately match his reason(s) to the entries in the list. The entire selection process is meant to take seconds, not minutes or hours.

Table 2 - Disposal operations

3. Table 2 is divided into two sections; Section 2A is meant to encompass all disposal operations which do not lead to the possibility of resource recovery, recycling, reclamation, direct re-use or alternative uses of wastes. Certain of the operations listed may or may not be acceptable from the point of view of environmental protection. Of the fifteen choices, several include a few examples; the others are self-explanatory.

4. For wastes destined for any of the operations listed in Table 2A, the exporter must be aware of the disposal technique foreseen for each discrete batch of wastes being sent across frontiers. In almost every case, the importer and the exporter will have agreed a disposal technique (and the price of disposal) by means of contract clauses. Thus, the exporter should be easily able to select one disposal operation from Table 2A which closely matches the fate foreseen for his wastes.

5. Selection of any of the entries D8, D9, D13, D14 or D15 by the exporter as the intended disposal operation is satisfactory in terms of the control system because any subsequent activity involving the treated or blended or stored, etc. wastes presumably occurs within the importing country. Hence, these subsequent activities are subject to the existing laws and regulations in the importing country and are not normally a matter for international scrutiny. The one operation most closely approximating the fate foreseen for the wastes upon transfer to the importer is to be selected from the fifteen options in Table 2A.

6. The operations listed in Table 2B are meant to encompass all those which might lead to resource recovery, recycling, reclamation, direct re-use or alternative uses of wastes. Entries R1 through R9 are concerned with fairly specific outcomes of these operations, e.g., energy generation, solvent recovery, extraction or winning of metallic units, obtaining useful acids or bases, etc. Thus, the exporter, by nature of his contacts with the importer combined with his knowledge of his wastes, is in a position to know which, if any, of these nine entries is most applicable. If the wastes are to be subjected to a processing regime which might result in more than one useful outcome, the exporter should select the one descriptor from Table 2B which, in his view, reduces any hazard associated with the wastes by the greatest amount. For example, in stainless steel pickling operations a residuum of nitric acid plus alloys of ferrous metal can occur. A reclamation process could yield some usable ferrous units plus a quantity of regenerated nitric acid. In this case, selection of R6 is indicated since the quantity and corrosive propensities of the acid probably represent a larger hazard than the ferrous components.

7. Choice of R10 means that the process selected must be of proven benefit and be legally acceptable in the importing country. If there is any doubt on this point, then D2 should be selected instead.

8. Entry R11 enables an exporter who is also acting as a reclaimer, recycler, etc. to export residua from any of the operations delineated as R1-R10 provided such residua can be used further in any of these ten operations by the importer.

9. The entry R12 is to be utilised when direct exchange of wastes occurs and the importer intends to utilise the wastes as a feedstock for one or more of the operations R1-R10.

10. The entry R13 is to be used when a commercial recycling, reclamation, etc. operation acting as importer has the legal right in the importing country to receive and accumulate material in order to better utilise such material later, e.g., when sufficient quantity makes it economically worthwhile to extract certain units or when the secondary materials market is more favourable for sale of the recoverables, etc.

Table 3 - Generic types of wastes

11. The exporter must indicate whether the wastes to be included in the movement are liquid, coded as L, sludge, coded as P, or solid, coded as S (powders are taken as solids). The physical state under the conditions of loading on to the conveyance is to be selected. If the physical state under transport conditions is expected to be different than this, select the physical state for transport.

12. Table 3 describes generic types of hazardous wastes and is divided into two portions. Entries 1-17 represent wastes which would be subject to control if these wastes exhibit one of the hazard characteristics included in Table 5. These seventeen entries correspond exactly to items 1-17 in the Core List of wastes to be controlled according to Decision C(88)90(Final). Moreover, if involved in transfrontier movement, these wastes would be required to be accompanied by a Transport Document (Consignment Note) under terms of one or more international protocols governing transport of dangerous materials.

13. Entries 18-40 of Table 3 are generic descriptors which represent wastes which may contain any of the constituents listed in Table 4. In other words, what makes the item represented by these entries a potentially hazardous waste is the fact that it is a waste in terms of the OECD definition and contains one or more constituents listed in Table 4: of course, the waste would also need to exhibit one of the hazard characteristics included in Table 5.

14. The entries listed in Table 3 are meant to represent a basic general descriptor for a discrete batch of wastes. In other words, if one were to describe in response to a question "what is that batch of material?", the answer could be "wastes in the form of ..." (any single entry in Table 3 depending upon the situation). The single entry in Table 3 most closely describing the wastes in this way is what is to be selected for inclusion in the IWIC. If more than one entry seems possible, the descriptor which most closely describes the main mass of the batch of wastes being sent for disposal should be selected. For example, suppose a mass of soil has been contaminated by a spill of wood preserving chemicals. What is being sent for disposal would be classified as 22 (soil containing constituents listed in Table 4) and not as entry 5 (wood preservatives).

15. The reason for this approach in this case is that the disposal operation must deal with contaminated soil whose constituents and hazards are known (from the remainder of the IWIC) and not waste wood preservatives as such. In general, the selection of the Table 3 entry based upon main mass of the wastes being sent for disposal alerts both the authorities and the disposal operation as to what techniques and capacity requirements will be needed for environmentally sound disposal.

Table 4 - Constituents

16. Table 4 contains a list of 51 entries. Many of these constituents have been proscribed in national lists such that wastes containing one or more of the entries in Table 4 are viewed as requiring special precautions, e.g., are referred to as hazardous, special, etc. Moreover, virtually all of them have been so proscribed under legislation of the European Community. For those who are concerned to know more of the reasoning underlying the selection of a given constituent of wastes which renders them hazardous, the Commission of the European Communities is compiling an extensive Guidance Document which summarises for each such constituent its:

-- Description;

-- Uses;

-- Correspondence with dangerous substances;

-- Main compounds appearing as wastes (waste arisings);

-- Dangerous properties;

-- General references concerning the information given.

17. Use of Table 4 does not imply that the batch of wastes must be subjected to qualitative and/or quantitative analytical chemistry techniques. Generators (and exporters) will normally be aware of the main constituents of a discrete batch of wastes. In selecting entries from Table 4, common sense criteria are to be applied. Some wastes may contain many of the listed constituents. If so, the best estimate for the group of no more than three entries in terms of descending hazard posed by the presence of a given constituent in the batch of wastes should be utilised. This estimate is meant to be qualitative and based upon the best judgment of the generator (or exporter) of the wastes; physical testing is not implied.

18. This approach for choosing entries from Table 4 is consistent with protocols governing the international transport of dangerous materials, e.g., ADR or RID. In the case of ADR and RID, the shipper must describe the materials as "wastes containing .... (the most hazardous one, two or at most three constituents in descending hazard order)". Thus, since the wastes subject to the OECD control system will almost always be also subject to such international transport of dangerous materials protocols, descriptors of the wastes under both the OECD system (Table 4) and the transport protocols should be identical.

19. In practice, a Transport Document (Consignment Note) must accompany international shipments of dangerous materials including wastes. In completing this Consignment Note in the case of wastes, the constituents in descending hazard order (up to three) must be listed by the shipper. Hence, for the IWIC, these same constituents would be located in Table 4 and selected. In effect, the person completing the Consignment Note would only need to consult Table 4 to select the IWIC code as an "extra" step. (Perhaps the descriptors in Table 4 would be used in fact as an initial step to choose identifiers for the constituents to be listed on the transport of dangerous materials protocol Consignment Note.)

20. Certain redundancies between Table 3 and Table 4 occur. These are intentional and should cause no concern to those who must complete the IWIC.

Table 5 - Hazardous characteristics

21. Table 5 includes a series of characteristic hazards which certain wastes may exhibit. The hazards listed as H1, H3, H4.1, 4.2, 4.3, H5, H6 and H8 correspond closely with recommendations prepared by the United Nations Committee of Experts on the Transport of Dangerous Goods for certain classes of dangerous goods. The specific relationships are as follows:

H1	corresponds with Class 1 -- Explosives
H3	corresponds with Class 3 -- Inflammable liquids
H4.1	corresponds with Class 4.1 -- Inflammable solids
H4.2	corresponds with Class 4.2 -- Substances liable to spontaneous combustion
H4.3	corresponds with Class 4.3 -- substances which in contact with water emit inflammable gases
H5	corresponds with Class 5 -- Oxidizing substances
H6	corresponds with Class 6.1 -- Poisonous (toxic) substances
H8	corresponds with Class 8 -- Corrosives

Some Member countries have developed tests which can be used to determine whether a waste exhibits the characteristics listed in Table 5.

22. The hazards listed as H10, H11 and H12 would each fall under Class 9 -- "Miscellaneous dangerous substances" in the UN classification system.

23. Omissions of the designations H2, H7 and H9 are deliberate.

24. All wastes subject to the OECD control system fall, for purposes of carriage, into the UN classification scheme for transport of dangerous goods. Under many international agreements, dangerous goods or materials which are transported across frontiers must be accompanied by a Transport Document with information containing a description of the materials and their transport class; this information is often compiled onto a form called a Consignment Note.

25. Table 5 contains definitions of the characteristics for entries H1 through H10 which indicate specific properties of a discrete batch of wastes enabling selection of the appropriate descriptor.

26. The H12 entry, ecotoxicity, is to be selected if the wastes could create apparent harm to the environment and/or to one or more ecosystems in case they (the wastes) are managed improperly. Again, physical testing or consultation of reference texts is not implied but rather a common sense estimation based upon some knowledge of the properties of the specific wastes in question.

27. Entry H11 is to some extent dependent upon the disposal operation chosen for the wastes (see Table 2). There have been many recorded instances of leachate release from waste deposits which caused contamination of resources such as groundwater. With respect to entry H11, the key point is that the wastes are "capable" of yielding a hazardous effluent or discharge after disposal. Thus, the engineering design and performance of the disposal operation is not to be taken into account when considering whether or not to select H11. Rather, if the disposal operation is one where the wastes do not tend to undergo rapid physical and/or chemical alterations (incineration for example), then there is a finite probability for these wastes to possess the characteristics described by H11. This probability is higher for disposal operations D1, D2, D6 and D8 than for options D3, D5 and D12, for example. The exporter should consider such points and invoke common sense in deciding whether or not to select H11 as being applicable. An important point is that the information should enable the competent authorities to reach a conclusion concerning whether or not the disposal facility selected is appropriate. The selection of a specific disposal operation is left to the exporter and disposer to decide.

28. A heterogeneous batch of wastes may well possess more than one of the characteristics listed in Table 5. The exporter should select the major one hazard or, at most, two hazards from among the entries. What is desired is an indication of the one or two hazards most likely to create the greatest harm if the batch of wastes were improperly managed.

29. The Note following the list of entries in Table 5 mentions tests which might be applied to determine if a specific batch of wastes does or does not possess a given characteristic. For purposes of the OECD control system, physical testing of waste batches is not intended unless a dispute arises between an exporter and the competent authorities. The System leaves it to the exporter to assert whether or not the wastes possess a given characteristic. If appropriate competent authorities challenge this assertion and the dispute cannot be resolved otherwise, test procedures exist for subjecting the disputed batch (or batches) of wastes to scrutiny on an impartial common basis.

Table 6 - Activities generating wastes

30. Table 6 consists of a number of activities which might generate wastes subject to control. In choosing the most appropriate single activity what must be specified is the actual process which gives rise to the waste, i.e., the source; the branch of industry or commerce is not to be taken as the basis. For example, wastes arising from the machine shop facility of a factory producing cardboard boxes would be classified with the code A241 and not A802. The machine shop operation gave rise to the wastes, not the box producing operation.

31. In other words, the process or unit operation giving rise to the batch of wastes is of prime importance -- not the ultimate product of the factory or commercial venture. In the case of mixtures of wastes from several processes in one factory or commercial venture, one chooses as the third digit in the Arisings code a "zero". For example, general scrubber sludges from the automotive industry would be coded as A240.

END-OF-TEXT