ARCHIVES HISTORIQUES DE LA COMMISSION

COLLECTION RELIEE DES DOCUMENTS "COM"

COM (77)630

Vol. 1977/0202

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(77) 630 final.

Brussels, 8 December 1977.

Draft

COUNCIL RECOMMENDATION

to the Member States regarding methods of evaluating the cost of pollution control to industry

(submitted to the Council by the Commission)

Explanatory Memorandum

In the Programme of Action of the European Communities on the Environment, which was approved in the declaration of the Council of the European Communities and of the representatives of the Governments of the Member States meeting in the Council of 22 November 1973, the following action is called for (1):

"The study of methods for evaluating the costs of anti-pollution measures with a view to harmonizing them. The first stage will be an attempt to define methods for evaluating the costs of combating water, air and industrial pollution. The work will be carried out in collaboration with the OECD".

It should be emphasized that the evaluation of the costs of existing pollution control plants not only provides information on the costs of policy measures already taken but can also be used to facilitate the forecasting of the costs of future policy measures. Because a very wide range of pollution control plants exists, embracing wide variations in the level of control achieved, the technical process used, and the date at which the plants were built, it is possible to construct cost curves from such data, showing the range of costs associated with different levels of pollution control. From these cost curves a forecast can be made, for example, of the costs associated with the general introduction of the most technically advanced pollution control plants currently in existence. Other information will usually also be required in order to take new policy decisions (e.g. information on pollution control techniques with which there is as yet no practical experience) but knowledge of costs actually incurred may thus be of considerable importance.

In practice, different methods are still used in different Member States and even within a single Member State to evaluate the actual or probable costs incurred by industry, so the data obtained are seldom directly comparable at Community level. It is therefore necessary to adopt a common set of rules to which all future studies of pollution control costs in industry conducted in the Member States should conform.

Possible methods have beenttried in practical sectoral studies within the Commission, by Member States themselves, and on behalf of the OECD Environment Committee. In the light of these studies and of extensive discussion in the Group of

(1) O.J. No. C112 of 20 December 1973

Environmental Economic Experts* of the problems they have raised, it now seems opportune to propose a single methodology for future pollution control cost studies of particular sectors of industry within the Community which will ensure a minimum of comparability of the results they produce.

As regards the sampling methodology used in actually collecting cost data, this may consist in taking a sample of the industry concerned by means of a questionnaire, in collecting information from the producers of pollution control equipment, in studying "representative" plants within the industry, or in a combination of these. It is doubtful whether any one of these alternatives is always to be preferred in all branches of industry, so that it would not be appropriate at this stage to decide in favour of one of them. In this case, the maintenance of flexibility in the methodology of evaluation is more important than the relatively small improvement in comparability which would result from the adoption of a single sampling methodology.

Finally, in order to ensure that as much comparable data as possible on pollution control costs in industry is available at Community level, it is appropriate that the results of all such cost evaluation studies available to Member States be communicated to the Commission.

* The Commission convened this group for the first time on 25 January 1972. The group discussed problems of cost evaluation methodology at its meetings of 25.1.72, 25.5.72, 8,9.1.73, 10,11.5.73 and 29.1.74. Working documents of the Commission on the subject were discussed by it on 11.7.74 and 16,17.6.75 and earlier drafts of this recommendation on 12.2.76 and 15, 16.7.76.

Draft Council Recommendation to the Member States Regarding Methods of Evaluating the Cost of Pollution Control to Industry

THE COUNCIL OF THE EUROPEAN COMMUNITIES

Having regard to the Treaty establishing the European Coal and Steel Community;

Having regard to the Treaty establishing the European Economic Community;

Having regard to the Treaty establishing the European Atomic Energy Community;

Having regard to the draft recommendation submitted by the Commission;

Having regard to the Opinion of the European Parliament;

Having regard to the Opinion of the Economic and Social Committee;

Whereas if the Member States were to differ in their estimates as to the cost of anti pollution measures, particularly if these estimates were not based on comparable legislative measures and a uniform definition of costs, the possible repercussions of this on policies at the national level would severelyhhamper the implementation of a common policy;

Whereas this statement of principle was adopted in the Programme of the European Communities on the Environment, which was approved in a declaration of the Council of the European Communities and of the representatives of the Governments of the Member States meeting in the Council of 22 November 1973 (1),

Whereas these cost evaluations are intended to determine the size of the burden to be borne by the economy as a whole or by individual branches of industry if specific measures are taken by the authorities to protect the environment, to provide data on the most cost-effective ways of reducing pollution and, under certain conditions, to help to determine quality objectives and/or emission standards;

Whereas the evaluation of the costs of existing pollution control plants not only provides information on the costs of policy measures already taken but can also be used to facilitate the forecasting of the costs of future policy measures;

(1) O.J. No. C112 of 20 December 1973

Whereas it is of great advantage to both local and national authorities and indispensable for decision-making at Community level, to have access to comparative data on the costs of existing pollution control plants in industry from various Member States of the Community;

Whereas for this purpose it would be beneficial that the Member States introduce as similar methods of evaluation as possible by adopting a common set of principles to which future studies of pollution control costs in industry should conform;

RECOMMENDS, within the meaning of the EEC Treaty, that in respect of the evaluation of the cost of pollution control in particular branches of industry, the Member States secure the use of the principles, definitions and methods contained in the annex to this recommendation and that whenever possible they communicate to the Commission the results of all such studies.

Done at

For the Council

The President

A N N E X

Part I

Principles, Definitions and Methods

1. The pollution control costs to be evaluated in the industries concerned should relate to their plants contributing to the prevention, elimination or reduction of

   (a) water pollution
   (b) air pollution
   (c) noise or vibrations or their effects
   (d) solid or liquid waste
   (e) damage due to the above factors

2. The actual collection of cost data should be preceded by a technical survey of the industry concerned. This descriptive phase should identify the different production technologies used in the industry, their environmentally harmful by-products, and the primary and secondary pollution control processes (including changes in the production process) used to reduce these. Other factors or characteristics of the processes which are likely to give rise in practice to considerable differences in cost for otherwise similar pollution control processes should also be identified. Such factors may include, for example, the age of the plant or the characteristics of the raw materials it uses. In such a case the same process operated by equipment of different ages or using different raw materials should be treated as several separate processes for the collection of cost data.

   The survey will thus result in a catalogue of pollution control processes with different technical characteristics and/or different average costs. It is for each of those processes that cost data should then be collected.

   For each process in the final catalogue the survey should determine the probable lifetime of the plant and equipment concerned. It should also determine the frequency of use and relative importance of each process within the industry.

3. This descriptive phase should be followed by an assessment phase, in which a "pollution control relevancy factor", i.e. that proportion of the overall costs of a particular pollution control technique which can be imputed to the requirements of pollution control, is explicitly laid down for each pollution control technique identified in the initial phase.

This factor will in fact be 100% in cases where the costs relate to plants serving exclusively for pollution control. In other cases, where a reduction of pollution is achieved by a change in the manufacturing process itself, the factor should wherever possible be determined after consultation with the Commission.

4. The cost data for pollution control plants should be collected in such a way that an evaluation of each of the following cost categories is available separately for each pollution control technique identified in the technical survey:

Investment Costs

(i) Expenditure on the construction or acquisition of plant and equipment (in accordance with the definitions in the European System of National Accounts (ESA)* item P 41),

(ii) Expenditure on the construction or acquisition of buildings (in accordance with the definitions of ESA P. 41),

(iii) Expenditure on the acquisition of land and/or the market value of land already owned,

(iv) Expenditure on maintenance (in accordance with the definition of ESA, P 41).

Running Costs

(v) Expenditure on labour (in accordance with the definitions of ESA, R 10),

(vi) Expenditure on energy (in accordance with the definitions of ESA, P 20),

(vii) Expenditure on materials other than energy (in accordance with the definitions of ESA, P 20),

(viii) Expenditure on services (in accordance with the definitions of ESA, P 20),

(ix) Expenditure on rents (in accordance with the definitions of ESA, P 20).

* Published by the Office for Official Publications of the European Communities in 1970

Even where detailed figures are not available in industry for each of these cost categories, they should nevertheless always be estimated.

The above mentioned data should be exclusive of value-added tax for those categories on which it is payable and should be calculated as gross costs before subsidies of any kind. The years to which categories (i) - (iii) refer should be identified, whereas categories (iv) - (ix) should refer to costs incurred in the preceding financial year.

5. The above cost data should be accompanied by the following information:

   (i) the market value of any materials recovered as a result of the operation of the pollution control plant in question, irrespective of whether such materials are sold or used internally,

   (ii) the exact absolute levels of each pollutant emitted by the relevant production plant in a specified time period both before and after the installation of the pollution control plant to which the costs refer,

   (iii) the annual production volume of the production process to which the pollution control costs refer.

6. If the data are collected by means of a questionnaire addressed to a representative sample of the industrial sector, the following information should also be obtained:

   - the amount of any pollution charges paid by a firm in addition to, or instead of, pollution control measures, both before and after installation of the pollution control plant in question (in accordance with the definitions of ESA, R72, R66);

   - the nature and amount of any financial aid, whether in the form of subsidies, tax concessions or preferential loans received by industry in respect of the pollution control installations concerned.

7. Any data other than the above which it is deemed desirable to collect should be expressed as separate figures, without being incorporated into any of the categories defined above.

8. The principles, definitions and methods concerned in this Part of the Annexe should be used in the light of the comments contained in Part II.

Part II

Comments on the Principles, Definitions and Methods contained in Part I

General

Lack of comparability can arise for numerous reasons, of which the following are the most important: different types of installation may be included under the heading of pollution control, different categories of costs may be included in the evaluation and these may be defined in different ways, the time period to which the data refer may differ from one study to another, and different sampling methodologies may be employed. In addition, much cost data remain of limited value unless it is clear to what extent the pollution control to which they refer has in fact reduced pollution levels.

However, pollution control cost studies can be carried out with differing aims in view, requiring the collection of more or less detailed figures. Thus it is possible to obtain valid information on the macroeconomic costs to industry of existing pollution control legislation without either carrying out a survey of the pollution control processes used or using a detailed breakdown of cost categories. It would therefore not necessarily be appropriate for such a study to use the same methodology as one which is concerned with the costs of individual processes in a particular branch of industry. Furthermore, since studies aiming at measuring the overall macroeconomic effects of environmental policy by evaluating pollution control costs in general provide data which are of limited value in the context of a different national economy, it therefore does not seem essential at present to develop a common methodology for them. A common methodology is therefore primarily required for those cost studies which refer to particular branches of industry. However, the results of such sectoral studies can also serve as part of the basis for calculating the macroeconomic effects of pollution control measures in the sectors concerned.

re point 1

This article defines those measures which are to be considered as pollution control for the purposes of this recommendation. However, it is for the technical survey to determine those types of pollution which are relevant for the branch of industry concerned by a particular study.

re point 2

The costs incurred by a branch of industry may depend crucially on the particular technical processes used in it, which may vary widely from one country to another. If the cost data obtained are to be comparable, they must therefore be broken down according to the process concerned, the number of processes involved being determined by a technical survey of the branch of industry before the cost evaluation itself is carried out. The presentation of separate cost data for each technical process allows them to be used in conjunction with knowledge of the frequency of occurrence of these processes in the Member States in analysing the reasons underlying the total costs incurred in a particular branch of industry.

re point 3

Where process changes are concerned, it will seldom be easy to agree on the magnitude of the "pollution control relevancy factor". However, as long as the factor chosen is explicit in the cost study it will always be possible, by means of a simple conversion, to make the results comparable with those of another study in which the factor has been given a different value.

re point 4

It is not to be expected that cost studies on particular branches of industry will always be conducted in different Member States at the same time. The comparability of their results will depend on the ability to adjust them for changes in prices. The presentation of separate data for each cost category allows the use of relevant price indices to adjust data from different years to a common base year.

re point 5 (i)

Since the cost data collected are intended to represent the burden carried by industry, it is necessary that any revenue accruing as a result of pollution control should also be assessed, so that net costs are not overestimated.

re point 5 (ii)

Without the careful assessment of the performance of the pollution control process concerned, it would not be possible to construct a curve linking the average cost of different processes to the amount of pollution control they accomplish.

re point 5 (iii)

The absolute size of an industrial installation is one of the most important determinants of the average cost of its pollution control. Knowledge of it is therefore of great importance in the analysis of the cost figures obtained.

re point 6

When data is collected by way of a questionnaire from a representative sample of industry, extra information should be obtained on transfer payments between industry and the public sector which are specifically related to pollution control. In this way, the actual net financial burden carried by the industry can be distinguished from the gross macroeconomic burden carried by the economy, the two differing by the amount of any net financial transfer.

re point 7

In many cases those conducting pollution control cost studies may wish to collect supplementary data, e.g. concerning the relative importance of pollution control costs compared to other variables such as total investments or turnover, or on the investment plans of industry. While such information may often be useful for certain purposes, it is not essential for the purposes of this recommendation, so its collection should remain optional.