INDUSTRIAL POLLUTION CONTROL

YEARBOOK 1974

Industrial Pollution Control Year Book

1974

Editor: Bert Laverick
Associate Editor: Miss E. Hammond

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Part 1 Pollution is an International Problem

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General Contents

Foreword

By the Rt Hon Geoffrey Rippon QC MP
Secretary of State, Department of the Environment

Throughout Britain there is an ever-growing concern that our priceless nationai assets of air, water and countryside should be widely used.

Industry knows this as well as any sector of our community. Coupled with responsibility towards the customer and the worker, industry is now showing an increasing sense of liability towards those who live within sight, earshot, downwind or downstream of the factory or manufacturing complex.

From the Government point of view, it would be an unrelenting uphill struggle if laws and regulations were the only weapons in our attack on environmental shortcomings. It is not an easy task. But thankfully, industry is displaying a great willingness to shoulder its environmental obligations. Government and industry are getting together through research and just plain common sense to find new ways of reducing and safely disposing of fumes, wastes and harmful effluents. In addition to giving us new processes and products, technology gives us these unwanted side effects. Now technology is being harnessed to help create a cleaner, healthier Britain.

I welcome the publication of this Industrial Pollution Control Yearbook as a handy guide to those industrial managers who are intent on disproving the outworn notion that muck and money are inseparable.

Why this Year Book has been Produced

Man's awareness of the threat to his environment offered by his ever-growing industrial activity, is of comparatively recent origin. Although commendable attempts have been made over the years to control atmospheric pollution and noxious discharges to watercourses, similar concern over the disposal of solid wastes and the suppression of noise is only now beginning to find coherent expression. Furthermore, the increasing rate of exhaustion of such natural resources as water, fuel, timber and minerals has provided a sharp stimulus to the prosecution of research into effective means of reclamation and recycling some of these materials.

This trend towards more stringent controls on waste emission, coupled with more sophisticated utilization of scarce or expensive materials, is fostering the world-wide development of novel techniques in environmental engineering. Moreover, this new branch of technology shows every sign of becoming a major international industry offering an expanding market not only to the manufacturers of plant and equipment but also to those providing research, design and consultancy services. Demand is growing fast for highly refined control instruments and techniques, economic waste treatment processes and more effective means of noise suppression.

This Year Book seeks to make a positive contribution towards meeting the demand by bringing to the attention of industry the weapons that can currently be made available to it in its battle against the growing tide of pollution.

This information has been concentrated in the three main areas of industrial pollution control — clean air, discharge and disposal of wastes and effluents, and the reduction of noise. Here is brought together for the first time in one compact volume a wealth of expert information and reference material relevant to both specialized and more general needs. Among many other features it lists organizations concerned with one or other aspects of pollution control as well as recording research projects currently under way in universities and other centres throughout the country.

Of particular value to those seeking sources of supply is the buyers' guide section which contains details of over 500 companies supplying plant, equipment and materials or offering consultative and advisory services.

As has been stated, pollution control is a rapidly growing specialized industry and any suggestions from readers and users of this Year Book as to how the next edition can be improved or added to will be warmly welcomed by the Editor.

Round-up of the United Nations Conference on the Human Environment

The results of two weeks of intensive work at the Conference — held at Stockholm from June 5-15, 1972, and the first such worldwide gathering ever to take place on the subject — are set out in three documents: Recommendations for an 'action plan'; a resolution outlining a scheme for new United Nations machinery, including the setting up of a fund to focus international efforts on pollution control problems; and a declaration on the human environment containing the principles which the nations assembled at Stockholm believe should guide them in the years ahead.

The 109 approved recommendations will go into an 'action plan' that sets out tasks and guidelines for governments and international organizations. As man inhabits or makes use of so much of the earth, and as his expanding technology has such a profound impact on the places where he lives or goes, the recommendations necessarily cover a broad area. This includes protection of other living beings, control over contamination from man-made contaminants, management of the use of natural resources, improvement of cities and other residential settlements, and ways in which nations can co-operate to save and enhance their common heritage.

The 'action plan' is a rearrangement of these recommendations into a coherent framework consisting of three parts: a global assessment programme, known as 'Earthwatch', to identify and measure pollution problems of international importance and to warn against impending crises; environmental management activities, to put to work what is known or learned about the environment, so as to preserve what is desired and prevent what is feared; and supporting measures, such as education and training, public information and organizational financing arrangements.

Pollution Control measures

On the general problem of pollution control Governments were urged to act in concert with one another and with international organizations in planning and carrying out control programmes for pollutants which cross national boundaries. It was suggested that the United Nations review and coordinate this cooperation and encourage the establishment of mechanisms through which States could consult on the speedy implementation of concerted abatement programmes.

A number of steps were recommended to gather and assess the information needed about pollutants, if effective control over them was to be exercised. The conference proposed an increase in the capability of the UN system 'to provide awareness and advance warning of deleterious effects to human health and well-being from man-made pollutants'. The stated aim was to provide such information in a form useful to national policy-makers. The Secretary-General was asked to help governments wishing to use such data in their national planning. It was recommended that the United Nations work out a procedure for identifying pollutants of international significance and consider appointing expert bodies to assess exposures, risks, pathways and sources of such pollutants. The Secretary-

General was asked to ensure that international programmes were used to monitor the accumulation of hazardous compounds at representative sites and also to improve the international acceptability of procedures for testing pollutants by developing international test schedules and techniques to permit more meaningful comparisons of data gathered by different nations.

Also put forward was the proposal that UN agencies should develop agreed procedures for setting safety limits for common air and water contaminants. Governments were asked to take internationally proposed standards into account when establishing national standards for pollutants of international significance.

Governments were further requested to make available to each other, through the United Nations, information on their pollution research and control activities. They were also asked to assist other governments to participate in international pollution assessment schemes, and it was suggested that the UN examine technical assistance needs in the study of pollution problems.

The Conference also adopted recommendations on specific kinds of pollution. On health effects, it recommended a major effort to develop monitoring and research that would make possible the 'early warning and prevention' of the deleterious effects of pollutants. The World Health Organization (WHO) was asked to help governments monitor air and water in areas where health might be threatened, to establish environmental health protection standards, and to coordinate an international system to correlate medical, environmental and family-history data.

In the related area of food contamination, the United Nations Food and Agriculture Organization (FAO) was asked to join up with WHO in setting up research and monitoring programmes that would provide early information on rising trends of contamination. The Conference suggested that the capabilities of the two organizations to help developing countries in regard to food control be expanded. Increased support was requested for the work of FAO on international standards for pollutants in food and on a code of ethics for international food trade.

The climatic effects of pollution were dealt with in a recommendation that a network of at least 100 stations be set up to monitor the atmosphere, together with another 10 stations in remote areas to monitor long-term atmospheric trends which might cause meteorological changes. Governments were asked to be mindful of activities that might affect climate, carefully evaluate the likelihood and magnitude of such effects, disseminate their findings in advance, and consult other States when they contemplated or engaged in such activities.

Chemical Aspects

Chemicals in the environment were the subject of two recommendations. Governments were asked to use 'best practical means' to minimize the release of toxic or dangerous substances, especially persistent ones such as heavy metals (including mercury) and organochlorine compounds (including those found in DDT and other insecticides) 'until it has been demonstrated that their release will not give rise to unacceptable risks or unless their use is essential to human health or food production, in which case appropriate control measures should be applied'.

The Secretary-General was asked to develop plans for an international registry of data on chemicals in the environment, based on a collection of production figures on the most harmful chemicals and data about the environmental behaviour of the most important man-made chemicals from factory to ultimate disposal or recirculation.

As to contamination from radioactivity, the Conference recommended that governments explore the feasibility of developing a registry of releases of radioactive materials. It also suggested expanded cooperation on problems of radioactive wastes.

Ocean Dumping

Much attention was devoted to the question of marine pollution. Governments were asked to act quickly to control all significant sources of marine pollution, including the land-based sources from which most of the pollutants found

in the oceans are derived. The Secretary-General was requested to provide guidelines which governments might wish to take into account when developing such measures. Governments were asked to give collective endorsement to a set of principles on the control of marine pollution as guiding concepts for two international conferences, one in 1973 on marine pollution and the other on the law of the sea in 1974. (Fuller details of these are given in the special feature of marine pollution—Ed.)

Articles for a draft convention on ocean dumping, developed during preparatory meetings in London, Ottawa and Reykjavik, are the subject of another recommendation. The Conference asked that the draft be sent for information and comments to the UN committee on the peaceful uses of the seabed and the ocean floor beyond the limits of national jurisdiction, and for adoption at a conference to be convened in London during October.

Governments were asked to ensure control over ocean dumping by their nationals anywhere or by any person in areas under their jurisdiction. They were asked to accept and implement available instruments on control over maritime sources of marine pollution and to ensure that those instruments were complied with by ships flying their flags or in areas within their juridiction.

Additionally governments were asked to participate in efforts to control all maritime sources of marine pollution, particularly with the aim of eliminating all deliberate pollution by oil from ships by the mid-1970s. Radioactive pollution from nuclear surface ships and submarines were singled out for special attention in this connection. Also, governments were asked to recognize that 'in some circumstances, the discharge of residual heat from nuclear and other power stations may constitute a potential hazard to marine ecosystems'.

Conference urged support for several specific programmes to assess marine pollution: the global investigation of pollution in the marine environment; the integrated global ocean station system; the gathering of statistics on potential marine pollutants; the work of the intergovernmental oceanographic commission (IOC); an annual review of harmful chemical substances in the oceans; the preparation of guidelines for test in order to evaluate the toxity of pollutants; studies on the effects of marine pollutants on man and other organisms; and a study of the possibility of establishing an international institute for tropical marine studies. The intergovernmental bodies concerned were asked to promote the monitoring of marine pollution.

The IOC was requested to consider the strengthening of information exchange activities concerning marine pollution and to initiate a scientific information referral capability in this area. Additionally, the Secretary-General was urged to seek more funds for training and other assistance to help developing countries participate in international marine research, monitoring and pollution control programmes. Conference suggested that the UN environmental machinery should ensure that advice on marine pollution problems was provided to governments.

International Machinery

The growing concern for the environment, divided until now among a multitude of specialized bodies, will soon become focussed in a single mechanism, if the recommendations put forward are subsequently approved by the General Assembly. Specialized agencies and other intergovernmental and non-governmental bodies will continue to pursue their own tasks, but a focal point within the UN organization would exercise leadership and coordinate this work without imposing directives on any other organization or any government.

Environmental Secretariat

The day-to-day work of the UN in this sphere would be performed by a small environmental secretariat, which would serve as a focal point for environmental actions and co-ordination within the UN system in such a way as to ensure a high degree of effective management. Its

executive director would be elected by the General Assembly on the nomination of the UN Secretary-General.

The function of the secretariat would be to give substantive support to the Council, co-ordinate environmental programmes within the UN system, secure the co-operation of the world's scientists, give advice when requested on the promotion of international co-operation, submit medium- and long-range plans for UN activities, bring to the Council any matter which the executive director thinks it should consider, administer the environmental fund and undertake other tasks as may be necessary.

The Conference's only unfinished task in regard to the framework for this new environment machinery concerned the location of its secretariat. Bids were made on behalf of London, Madrid, Vienna, Malta, Kampala, Nairobi, New Delhi and Mexico City, while some countries favoured the more traditional sites of New York or Geneva. The matter was left for the General Assembly to resolve, with the help of a paper to be prepared by the Conference secretariat giving information on the locations suggested.

According to Conference recommendations, a representative group of 54 nations, elected every three years by the General Assembly on the basis of equitable geographical distribution, would meet regularly in a Governing Council for Environmental Programmes. This body would be the central intergovernmental organ for international co-operation on the environment. Each year, both the Economic and Social Council and the General Assembly would have an opportunity to review its work.

New money for pollution control activities would come from setting up an environmental fund, to which governments would contribute on a voluntary basis. The fund would pay all, or part, of the costs of new environmental activities undertaken by the UN and its agencies. Bodies outside the UN system could also be used to carry out programmes financed by the fund. Its general operating procedures would be determined by the Council.

The fund would finance such activities as monitoring and data-assessment systems, improvement of environmental quality management, research, information exchange and dissemination, public education and training, assistance to national and international institutions, and promotion of research on industrial technologies suited to economic growth with environmental safeguards.

Operational programme costs of the environmental secretariat — that is, the costs of running specific programmes such as monitoring and research — would be paid for by the voluntary fund, while the salaries of the small-core secretariat would come from the regular UN budget, for which all member States are assessed.

The Conference recommended that additional money be found in order to ensure that the development priorities of developing countries were not adversely affected. Though no target figure had been set for the fund, the sum of $100 m, spread over a five-year period, was agreed. Initial response among industrialized countries to contribute to the fund was said to be encouraging.

Co-ordination Main Feature

Because so many agencies are involved in the manifold aspects of pollution control, co-ordination is a main feature of the proposed machinery. An environmental co-ordination board would be established under the auspices of the Administrative Committee Co-ordination, the intersecretariat body responsible for general co-ordination of the work of UN agencies. The board, in turn, would report to the Council.

UN agencies were invited to take the steps required for concerted and co-ordinated environmental programmes. Regional economic commissions within the UN system were urged to intensify their efforts in regard to pollution, while external organizations, both intergovernmental and private, were asked to lend their support as well.

Governments were asked to ensure that appropriate national institutions were entrusted with the task of national and international co-ordination on environmental matters. Finally, the Conference recommended that the General Assembly review the situation in 1976.

OECD and the Environment

Outline of objectives and philosophy

Role and Methods

Governments have allotted a leading role to the Organization for Economic Co-operation and Development for the study and possible solution of some of the major problems affecting the environment, looking for results in three distinct but related fields:

- A general acceptance of the concept of notification and consultation as regards measures taken by individual countries and of the obligation to justify such measures.

  An international 'early warning' procedure adopted by the OECD Council came into operation on May 26 1971 for an initial period of two years; it covers chemical substances, among them certain pesticides such as DDT and heavy metals such as mercury, which could become environmental hazards. Under the procedure, member countries will give notice of measures pending or recently taken to protect man or his environment which are likely to have significant economic or trade effects on other countries. The procedure further enables a member country which considers it is or will be adversely affected by a measure taken in another country to request consultations on the scientific and technical justification for it as well as the economic implications of the measure.

- Agreed international assessment of the nature of the problem, the options open to governments, their cost and impact on the economy and trade will serve governments as guidelines in decision-making on environmental problems.

  As in other instances, the results of imposing governmental controls may well be uneven as they effect, for example, industrial interests as against those of the public at large: some of them may have in fact unpopular aspects, especially in their early stages. Public acceptance of the necessity of such measures may be eased on the understanding that they have been considered and agreed at international level.

- International concensus on the principles of cost allocation which would be involved as the result of measures taken in defence of the environment, as between the consumer and the taxpayer.

  As in the case of other aspects of the environmental problem, little is yet known of what costs are likely to be. It has been estimated that except in certain specific cases where costs will be markedly higher — in the automobile industry, for example — the cost to the producer is likely to be less than 5% of production costs. But this will vary as between individual factories: anti-pollution measures taken by a vigorous modern firm with the latest in premises and equipment will clearly prove less of a burden than those imposed on an old-fashioned business showing marginal profits.

These are long-term objectives — even in the case of the 'early warning' system further additions and modifications are expected — which not only call for action on the international level, but which involve a multi-disciplinary approach. OECD, with its experience of dealing with a wide range of sectoral aspects of the economy (agriculture and industry, energy and oil, manpower and social affairs, science and education among them) is particularly suited to this role. Moreover, the membership of OECD, which includes virtually all the highly-industrialized market economy countries of the world, means that many of the problems relating to the environment affect these countries in a more concentrated form than is the case in less economically advanced areas.

Principles and Philosophy

Marking the new theme of *qualitative*, as well as *quantitative*, economic growth for the next 10 years, the OECD in 1970 began the new decade by transforming its committee for research co-operation into the more comprehensive environment committee. The new committee thus benefited from the previous 10-year experience and reports of the research committee's technical studies of such environmental problems as water and air pollution, automobile and aircraft noise, traffic congestion and urban transport.

In this way, sector by sector, the OECD has sought to get to grips with practical issues. As a result of such activities, and at the express wish of member countries, the environmental committee was given the following mandate by the OECD Council:

- to investigate the problems of preserving or improving man's environment with particular reference to their economic and trade implications;
- to review and confront actions taken or proposed in member countries in the field of environment together with their economic and trade implications;
- to propose solutions for environmental problems that would as far as possible take account of all relevant factors, including cost effectiveness;
- to ensure that the results of environmental investigations can be effectively utilised in the wider framework of the Organization's work on economic policy and social development.

The 23 member countries of OECD produce more than 60% of the world's wealth and have the consequent economic and scientific, technological and technical capacity required to master the problems to which production gives rise. OECD's goal of *qualitative growth* for the seventies — economic development coupled with and defined by an improved quality of life — is to be achieved by the co-operation of its members, who constitute the world's major producers.

There is no fundamental conflict between economic growth and environmental protection and improvement. On the contrary, zero growth would mean zero progress in coping with the accumulated problems of the past, not to mention those of the future. Only an expanding economy can provide the resources to meet the higher expectations of man in his quest for a better quality of life, either through increasing income or through more adequate public services.

Similarly, solutions for the problems of industrial growth lie in an alerted science, intelligent choice, rational direction and control of industrial means. To the problems of technology are already appearing the solutions of better techniques, proving that satisfactory means can be found for solving possible friction between economic growth and environmental protection. To share the solutions, to compare their effectiveness in cost-benefit terms, is part of the environment committee's mandate and programme.

The new, broader view of economic growth not only encompasses such public goods as parks and public education, but also pure air, unpolluted water and a pleasant environment once regarded as 'free' goods outside the economic sphere and to be taken for granted.

This new frontier in economics is being explored by OECD in its search for a way to complement the usual economic indicators, such as Gross National Product, by social indicators, and among them environmental indicators, which will measure a nation's performance in more concrete terms.

There is recognition of the price for such public goods, and particularly the price for their neglect. There is also recognition of the cost of pollution control in the productive process, and the problems it creates:

- Who should pay the added cost, the manufacturer — that is, ultimately the consumer — or society — that is, the taxpayer?
- Internationally, how can a nation that wishes to protect its environment — and pays the internal cost — also protect the competitive position of its industries in the world market from producers less concerned with pollution?
- What standards might be mutually arrived at, as in the case of automotive emission, which could prevent an un-

necessary multiplication of product types?

- How best to limit distortions in international competition and to preclude non-tariff barriers to trade, erected in the name of a nation's health, clean living conditions of safety? How, in effect, to prevent environmental protection from becoming another form of protectionism?

These are some of the basic questions member countries have placed before OECD, as the most qualified body for considering them. A distinctive feature in the OECD approach is that it seeks to look at environmental problems in an integrated way. The objective of preserving and improving environmental quality, important as it is, is only one of the many objectives of economic and social policy. These different objectives may sometimes appear antagonistic and need delicate trade-offs. Therefore the environment committee is working in close co-operation with other committees of the Organization in order to propose constructive and realistic solutions to member governments. This 'horizontal approach' implies participation in environmental studies of such bodies as the agriculture, industry, education and science policy committees, as well as the manpower and social affairs committee and working party No 2 of the economic policy committee, concerned with growth studies.

The 'Early Warning' System

The notification and consultation, or 'early warning' procedure, proposed by the environment committee and put into force by the OECD Council in 1971 for a two-year trial period, is a far-sighted development in governmental co-operation for a co-ordinated environmental policy. Under this procedure, member countries have agreed on a voluntary basis and without legal restraint to notify other member countries of measures they are about to take, or have recently taken, for the control of substances likely to have undesirable effects on man or his environment.

Notification of a measure which falls within the rules of the procedure is to be followed, where appropriate, by consultation between member countries on the technical and scientific justification for the measure and on any questions of difficulty arising from the application of the measure, insofar as it affects countries other than the notifying country. Provision is also made for a member country to request a consultation where it feels that some measure taken in another country affects its trade, economic or other interests.

In this first instance, this procedure will apply to legislation, regulation or administrative measures relating to substances which, through their persistence and distribution in the environment and their accumulation in living organisms, present particular environmental difficulties, and where the measure in question can be expected to affect other countries.

Central Analysis and Evaluation Unit

Basically, the organization of the environment committee consists of a sub-committee of economic experts, several *ad hoc* (short time, specific task) groups, and four sector management groups.

The sub-committee of economic expects has been established for an experimental one-year period, after which it will be reviewed and reappraised. It reports to the environment committee on economic matters including trade (and other selected issues related to major environmental problems) with particular reference to the multi-disciplinary aspects of these problems.

Most importantly, it advises on and reviews the work of the central analysis and evaluation unit, which is a key development in relation to the work programmes of the environment committee. The unit take an integrative approach to environmental problems, tying them closely to general studies of economic growth and development, and pursues its own programme along the following fundamental lines:

- *Analysis of overall environment problems*, which means, in part, examining the extent of similarity in environmental problems within various countries and regions regarding ecological imbalance, threats to human

health, loss of natural or man-made resources, etc. The unit also gathers statistical information on both economic and environmental indicators and works on descriptive models.

- *Evaluation of environmental policies*, which may include investigating:

(a) under what conditions the concept of an overall environmental policy would be useful to government administrators, e.g. how the objective of a certain desired environmental quality can be related to other objectives of national policy, such as economic growth and public health, and how such a multi-goal approach to planning and policy-making lends itself to analysis;

(b) the present status of overall environmental policies in member countries (frequently in collaboration with other international organizations);

(c) principles to be used in general policy formulation in the assessment of costs arising from implementation, of environmental policies — for example. are these to be borne by industry or society?

- *Assessment of control mechanisms*, which involves studying questions of international standards for pollution control and in general assessing administrative options for environmental protection and their economic consequences.

Ad Hoc Groups

Ad hoc investigations are designed to be short-term (two-year maximum) and to deal with specific industries. They include review of the present situation with regard to pollution of all types from a designated source, estimates in relation to economic growth predictions and the probable future situation, and technical assessment (including costs and the means available to reduce pollution).

Groups working on these specific tasks include in their final report alternative ways and means by which governments may act. One of their principal concerns is the assessment of the impact of environmental measures on industry and government policy. They frequently operate jointly with other established committees of OECD, namely, the industry committee, the committee for agriculture, the energy committee and the oil committee.

Projects already in hand comprise air pollution from fuel combustion in stationary sources; pollution by the pulp and paper industry; and the impact of the motor vehicle on the environment.

Sector Groups

The four sector management groups are composed of senior government officials responsible to their nations for management in these respective sectors: water, air, chemicals in the environment, and problems of urban environment. Their particular responsibility to the environment committee is to alert it to likely or emerging problems based on their specialised knowledge and day-to-day national experience.

They are charged with investigating and rationalizing problems giving rise to international concern, and with providing a focal point of exchange for the various strategies, economic and legal, as well as technical, for resolving them.

Guidelines Laid Down

At a meeting at ministerial level in May 1972, the Council adopted a recommendation that governments observe in their environmental policies the 'polluter-pays-principle' and other guidelines. The central objective of these guiding principles is to ensure that national measures to combat pollution should lead to both better management of scarce environmental resources (such as land, air and water), and be framed in such way that they do not create distortions in international trade.

The guiding principles are as follows:

1. *The polluter-pays-principle*. This is an efficiency principle, which lays down that the cost resulting from the implementation of anti-pollution measures should be allocated in such a way that the scarcity of natural resources will be reflected in the price structure. It means that these costs should be borne by the polluter (i.e. in most cases by the producer, who may, of course, modify his prices accordingly). Subsidies for this purpose by public

authorities should therefore be avoided.
2. *Environmental standards*. While acknowledging differences in environmental policies according to varying national conditions and goals, OECD member governments have agreed that more stringent anti-pollution measures are called for, together with a high degree of international harmonization on both their scope and timing. Measures to protect the environment should be framed, as far as possible, so as to avoid the creation of non-tariff barriers to trade. In cases where products which may cause pollution enter into international trade, governments should seek common product standards.
3. In accordance with the provisions of GATT, other guiding principles aim at avoiding discrimination stemming from environmental considerations against imported products, and to exclude the introduction of compensating import levies, export rebates or other equivalent measures designed to offset the cost effects of differing environmental policies. As stated in the annex of the recommendation, 'effective implementation of the guiding prinicples . . . will make it unnecessary and undesirable to resort to such measures'.
The environment committee will survey the effective implementation of the guiding principles and will propose appropriate mechanisms to this end.

Recommendation on Measures to Curb Mercury Pollution
As we prepare to go to press, news has been released that a recommendation calling for a concerted effort by OECD member countries to reduce discharge of mercury compounds into the environment has been adopted by the Council.
Immediate targets selected for action are the elimination of alkyl-mercury compounds in agriculture. All mercury compounds from use in the pulp and paper industry, and the maximum possible reduction in discharges of mercury from the mercury-cell chloralkali plants.
The OECD recommendation also provides for an exchange of information on mercury usage and implementation measures taken by governments.

OECD Publications

The following material, of general environmental interest, is published by the Organization for Economic Cooperation and Development, 2 rue André-Pascal, 75-Paris 16e, France. Available in the UK from HM Stationery Office, PO Box 569, London SE1 9HN. Readers wishing to be kept informed of new publications in this field should contact the publications office at the Paris address.
NOTE: Publications relevant to the specific aspects of pollution covered by this Yearbook are listed in the appropriate sections.

Urban Traffic Noise—Strategy for an Improved Environment. October 1971. 144pp. 37p.
The Urban Transportation Planning Process. May 1971. 352pp, bi-lingual. £2.
Eutrophication in Large Lakes and Impoundments. Uppsala Symposium, May 1968. Report compiled by C P Milway. August 1970. 562pp, bi-lingual. £3.50.
Problems of Persistent Chemicals—Implications of Pesticides and other Chemicals in the Environment. January 1972. 114pp. 92p.
Future Directions for Research in Urban Transportation. February 1969. 160pp. £1.55.

Occurrence and Significance of Chemicals in the Environment (1972).
An account of the experience gained through an international co-operative study on sampling and analysis of residues in wildlife, carried out in 23 laboratories in member countries. The conclusions in the study are relevant to the global monitoring system discussed at the United Nations conference on the human environment in Stockholm.

Mercury Use and Social Choice (1971).
A review of the prolbems of mercury in the environment. It deals with the use of mercury, its occurrence, questions of hazards and the possibilities of its control—topics studied by the environment committee's sector group on the un-