TOXIC CHEMICALS MANAGEMENT PROGRAM

(TCMP)

DEPARTMENT OF THE ENVIRONMENT

15 FEBRUARY 1980

TOXIC CHEMICALS MANAGEMENT PROGRAM

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INTRODUCTION

At its meeting of 20 September 1979, Senior Management Committee examined the management of toxic chemicals in the department as a priority issue of national importance. It appointed a Task Force to propose policies and objectives for the department, and eventually for the federal government, to recommend the most appropriate form of program management and to provide the framework for the development of a departmental plan of action.

The Task Force was composed of SADM, ADM/AES, ADM/EMS, ADM/EPS, RDG/Ontario. It began its work by organizing a study session at the NWRI in Burlington at which program managers and scientists described the current state of toxics programs in the department and in the federal government and provided a basis for understanding and consideration of outstanding issues.

The Task Force considered in turn the nature of the issue, principles and objectives, a program framework for the handling of toxic chemicals, the dimensions of the program external to the department and a management structure for the program. Its mandate was not to develop a plan of action but to provide a framework for the development and implementation of the plan of action.

The Task Force reported to Management Committee of the department on January 24, 1980. Management approved the report and its recommendations. This report now constitutes a record of the Management decision and a statement as to the kind of Toxic Chemicals Management Program the department wishes to have.

It is hoped that the implementation of this report will contribute to more effective action by the department and by the federal government.

1. THE ISSUE

Definition

"'Toxic' is a relative term. The effects of any chemical or mixture depend not only on its composition and basic properties but also on dosage, route and conditions of exposure, susceptibility of the organism exposed and other factors. It is impossible to categorize all chemicals as 'toxic or non-toxic' although some are more toxic than others during normal conditions of use and exposure and some are generally innocuous. For the purpose of this report, the expression 'toxic chemicals' is not intended as a scientifically precise term but to encompass the principal concerns of the federal government in the management of a serious environmental problem".*

Toxic Chemicals are thus here defined as those chemical substances which, when released to the environment, or thereafter if chemically transformed through combination or otherwise, could pose a significant threat to natural ecosystems or to human health and well-being. They are often highly resistant to natural degradation and are frequently capable of causing biological changes at trace concentrations; many are bio-accumulative and pass through food chains. Some may also be rendered more toxic when combined in the environment with other chemicals. They are generally irretrievable once released into the environment and their effects can, within a time frame meaningful for human society, be effectively irreversible.

The Substantive Dimension of the Issue

A number of recent incidents have highlighted the risks to society from the growing use of a vast number of chemicals, many of which have deleterious properties.

The identification of existing toxic substances, the growing number of chemicals and the lack of complete understanding of their effects, singly or in combination, generate public concern about the ability of all parties - producers, users and government - to insure the safety and well-being of humans and of their environment.

A report by the Canadian Environmental Advisory Council** identified the need for greater understanding of the complexity and ramifications of toxic chemicals and for appropriate instruments of action and recent Ministerial statements have stressed the importance of coming to grips with this problem. The proclamation of the Environmental Contaminants Act in 1976 represented a major step forward for the Federal Government and substantial resources are being directed to research and control.

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* Report to President Carter by the Toxic Substances Strategy Committee, August 1979.

**Ecotoxicity: Responsibilities and Opportunities; Hall, R.H. and Chant, D.A., CEAC Report No. 8, August 1979.

The importance of the issue requires periodic examination to ensure that responsibilities are well defined and that programs are designed and managed to respond effectively to the changing dimensions and perceptions of the problem.

The Management Dimension of the Issue

Within the department, the management of toxic chemicals has been designated as a priority of the highest order. It is therefore important to insure effective and efficient management and to be able to identify resource requirements in relation to specific objectives.

In examining the state of existing programs in the department, the following characteristics have been identified:

- There are a number of activities dealing with toxic substances responding to different mandates and objectives which are being carried out as legitimate responses to the department's responsibilities.

- Traditional determinants of programs and activities are either human health concerns or specific elements of the environment (migratory birds, boundary waters, forest).

- There is a need to make more explicit the common purposes which must also be served by the "sectoral" programs or by other means.

- The interaction and linkages between activities oriented towards the regulation and control of toxic chemicals and other management activities are inadequately defined. There is a need to serve effectively both control and regulatory activities and resource management responsibilities.

- In some instances, there is a lack of effective coordination and orchestration between departmental activities in toxic chemicals and those of other agencies such as NH&W, DFO and Agriculture. There are instances where existing interdepartmental committees do not provide the close understanding and cooperation that are required. Similar problems exist in the provincial and international arenas.

- Figure 1 illustrates the relationships between the various activities, the sectoral management programs and a "Toxic Chemicals Management Program".

Conclusions

(1) Given the legitimacy and continuing nature of the objectives of Service and departmental activities involving toxic substances, there is a need to determine objectives in common which must be met as well as the specific objectives which must provide guidance and coherence to the department's activity.

(2) A coherent departmental approach to Toxic Chemicals Management will be based on:

- a set of policies which will provide consistent guidance to all activities;

- objectives which reflect an ecological approach, integrating human health and natural resource concerns in an understanding of ecological relationships within the biosphere;

- a management structure that provides the necessary cohesion and guidance for toxic chemical control and regulation activities while contributing to other management objectives.

(3) The Toxic Chemicals Management Program (TCMP) of the department provides a focus for all activities related to toxic substances. It includes specifically the management of radioactive substances and the management of hazardous wastes, (about which separate statements are made) and the management of pesticides.

(4) There is a need for agreed upon federal policies. Once DOE has clarified its own program objectives and structures it should seek the agreement of other concerned departments on federal objectives and policies and on means of ensuring cooperation and coherence amongst federal departments and agencies.

(5) There is a need for federal-provincial cooperation to be based on agreement about principles and policies and on systematic linkages.

(6) The program should be based on clear definition of responsibilities between governments and the private sector. Government intervention should be effective and as limited as possible. Producers and users of toxic products should assume costs appropriate to their responsibilities.

TOXIC CHEMICALS PROGRAM ELEMENTS

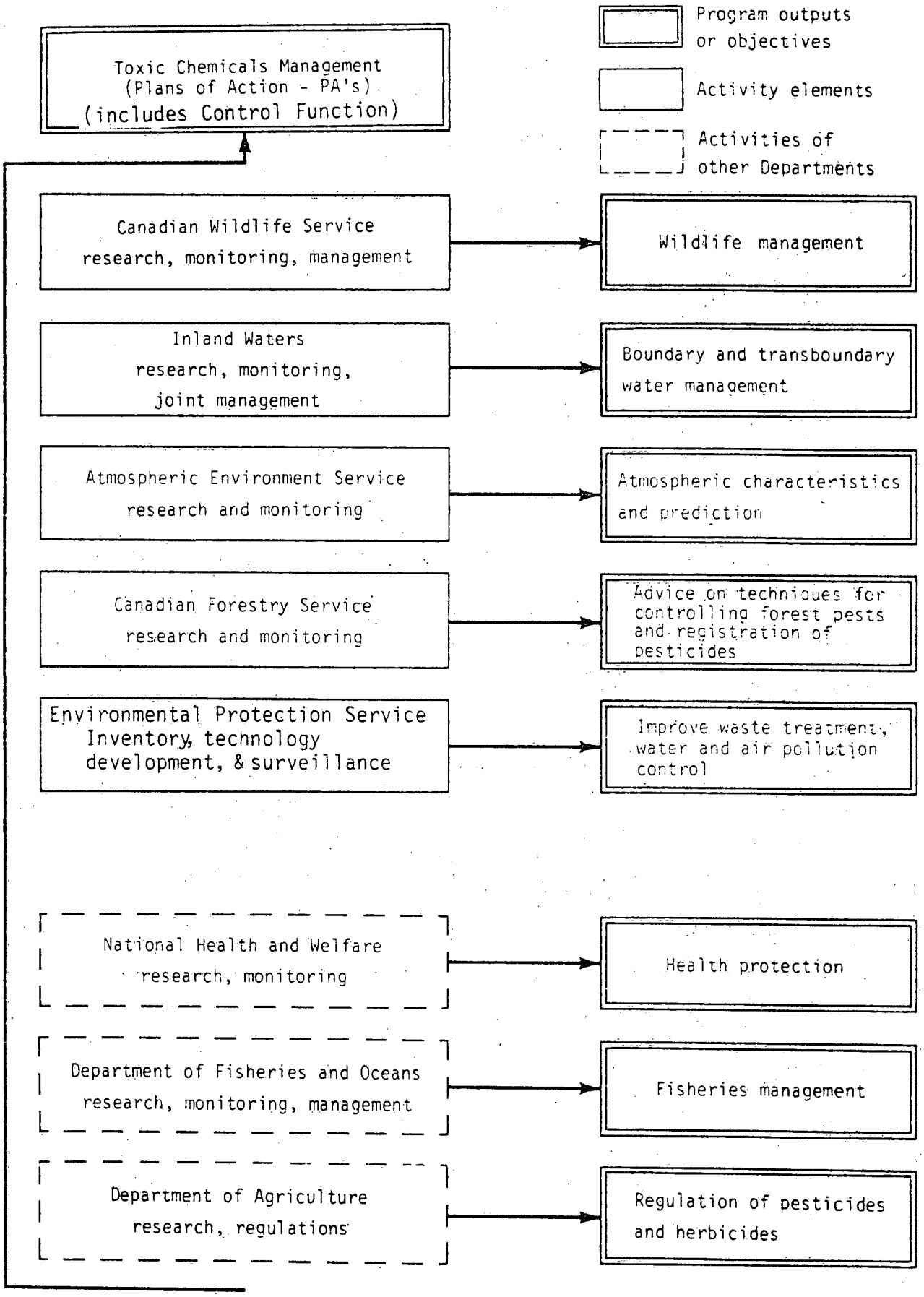

FIGURE 1.

2. PRINCIPLES

Principles are meant to clarify the respective responsibilities of producers (and/or importers), users and governments. They must alsc provide guidance for appropriate action in accordance with those responsibilities.

The principles described below should not be read as a comprehensive, definitive set but as initial statements to provide guidance to the DOE program and the development of a legislative mandate. They should also serve as a basis for reaching agreements with the other federal departments concerned so that a set of federal policies can be established and promulgated.

The main thrust of the statements that follow is to make explicit the responsibility of producers and users of chemical substances for the avoidance of damage to persons or to ecosystems. Government has a subsidiary responsibility to provide information, guidance and, where need be, regulation.

Principle 1

It is the responsibility of producers and users to take all reasonable measures to ensure that no toxic chemicals are released to the environment in amounts which could cause harm to human beings and natural ecosystems bearing especially in mind the potential for such chemicals, particularly if persistent, to accumulate and to interact with other chemicals already in the environment or likely to be released to the environment.

Comment

This Principle states that it is the responsibility of the producer/user to avoid damage by taking all reasonable measures to that effect including, in certain instances, the complete avoidance of releases through closed circuit looping and/or substitution of products or processes. Where government has provided guidance and/or regulation, the responsibility of the producer/user is to abide by such guidance or regulation.

Principle 2

It shall be the responsibility of a producer or importer to demonstrate the safety of a potentially toxic product before introducing it to commercial use.

Comment

As a corollary of principle 1, it is incumbent upon those who introduce products into public use to demonstrate the safety of the product and to bear the costs of the necessary tests.

Principle 3

Where particular toxic chemicals have been identified for control through established assessment procedures of government and where "safe levels"

can be readily determined with confidence, control actions, including the provision of adequate warnings, shall be related to those levels. Where soundly based scientific information on cause-effect relationships cannot readily determine with confidence a "safe level" of releases for such chemicals, controls shall be applied at the sources of the chemicals, including where necessary prohibition of release or use, taking into account the social and economic implications of such controls.

Comment

Many toxic chemicals, particularly when considered in combination with others in continuous exposure in the ambient environment, defy establishment of "safe" or threshold levels. Indeed to establish such levels when possible effects are in doubt can create a false climate of confidence. The need to encourage minimal release into the environment and to take proper account of the socio-economic benefits and disbenefits of such encouragement must therefore be explicitly recognized.

Principle 4

Systematic evaluation of chemicals new to Canada or destined for a new use in Canada shall be undertaken by the importer or producer of such chemicals in accordance with requirements laid down by the appropriate federal authorities, taking full account of such evaluation as may be conducted in other countries. Complete information thereon, and on the projected uses of such chemicals shall be provided to said authorities.

Comment

Considerable efforts are currently underway, notably in the OECD, to establish international norms for testing and for the provision of information on new chemicals. OECD countries alone produce $300 billion a year of chemical products and $90 billion of this is in trade between them. Canadian participation in the international community's efforts to ensure effective testing of "new" chemicals is needed to avoid both unnecessary duplication and non tariff barriers to trade. Particular consideration will have to be given to testing new chemicals developed in Canada for specialist use abroad and which, because of the small quantities entailed, might otherwise go untested. Within Canada, only a small number of "new" chemicals is developed each year. Much larger numbers are imported. Effective protection of the Canadian public and environment therefore requires meaningful testing of these imported chemicals by the international community and the provision to Canadian authorities of full information about them. Moreover, the world-wide shortage of facilities to undertake such tests calls for maximum efforts to avoid duplication between countries.

Principle 5

Users and producers of existing chemicals and producers of by-product chemicals shall provide to the appropriate federal authorities on request information concerning the use, environmental release and effects on man and the environment of such chemicals as may be listed in schedules to be issued for this purpose; such requests shall be designed to minimize duplication of testing and data generation and to maximize use of existing knowledge.

Comment

Effective management of "new" chemicals addresses, in Canada, only a very small part of the problem posed by the release of toxic chemicals to the environment. Such chemicals may be used in a particular process or be formed as a by-product of a process. Japan and (shortly) the European Economic Community require testing solely for "new" chemicals whereas U.S. and Canadian legislation gives the power to require testing of existing ones only. Principle 5 calls for selective provision to government from the private sector of both quantitative and qualitative information on existing chemicals which, it is proposed, would be selected on the basis of experience in Canada and elsewhere with the same or similar chemical compounds. It is essential that considerable efforts be made to ensure cooperation between companies to minimize duplication of testing and maximize use of existing knowledge whether generated within or outside of Canada.

Principle 6

Persons undertaking activities which result in the discharge to the environment under normal circumstances, of potentially toxic chemicals shall identify such substances and make this information known to the appropriate authorities. Similar information shall be reported about any by-products that arise naturally from the use of a given chemical. All accidental releases shall be reported to the appropriate authorities.

Comment

This principle reflects the view that the operator of an industrial activity should be aware of that which he is releasing to the environment and that the appropriate authorities should be similarly informed. This might reasonably be done in certain instances by industrial associations rather than for individual plants of similar type. In this manner, it would then be possible for the authorities to decide whether a substance being released should be "scheduled" for purposes of obtaining quantitative information through measuring and detailed cause-effect information through testing. It is also essential that all accidental releases be rapidly reported in order that effective containment or clean-up can be carried out.

Principle 7

Anyone handling or importing a product containing chemicals hazardous to health and to the environment shall take such steps and otherwise observe such precautions as are necessary to prevent or minimize harm to human beings or the environment. It is the particular duty of anyone manufacturing or importing such a product to enquire carefully into its composition and other properties with a bearing on public health or environmental protection. The product shall be clearly marked with information of importance from the standpoint of public health or environmental protection. Such information shall also be submitted to the appropriate authorities.

Comment

It is important that users and producers of products containing toxic chemicals accept responsibilities akin to those imposed on undertakers of industrial activities which have the potential of releasing toxic chemicals to the environment.

Principle 8

All information received by government in accordance with these principles shall belong to the people of Canada and therefore be made readily available to the public with the exception of that information which, in the opinion of the responsible minister or his designate, is of a confidential proprietary nature and which, if disclosed, would prejudice a legitimate commercial interest. Notwithstanding this limitation, the responsible minister or his designate shall make such confidential information available to other governments where, in his opinion, such action is in the public interest and where, in his opinion, such governments are able and willing to afford the information appropriate protection.

Comment

Industry holds the view that it, not government, should determine what information should be treated as confidential and that governments should not be allowed to transfer such information to other governments for whatever purpose. It is further contended that if other governments wish that information they should approach industry directly for it. A policy based on this view of confidentiality runs the risk of placing industrial or corporate interest ahead of the public interest through adoption of overly broad confidential categories. It could also make more difficult federal-provincial and international cooperation in the management of toxic chemicals and could result in costly duplication of information gathering activities.

Principle 9

Industry will be encouraged to support and undertake research and development activities designed to identify alternative products and processes to those which result in the release of toxic chemicals in favour of potentially more benign technologies.

Comment

Given the extensive use of toxic chemicals in our economy, control of toxic products is but one way to safeguard the public and the environment. The development of alternative, more benign, technologies offers a number of possibilities. The government can play a significant role in promoting the development of such alternatives. This will also reduce proportionately the requirements for government intervention and control.

Principle 10

Given the international character of the chemical - producing industry, the large international trade of chemicals and of products containing chemicals, the transboundary movement of chemicals in various environmental media, the complexity of hazard assessment, multi-provincial character of Canada's chemical industry, and the importance of protecting the Canadian public and environment from serious and often irreversible adverse effects, the federal government assumes responsibility within Canada for providing leadership in managing toxic chemicals; such leadership shall be exercised in cooperation with the provinces both in assessing the problems and effecting regulatory or other solutions bearing in mind the provinces' responsibility for protecting their citizens and environment and the desirability of dealing with industry in an efficient coordinated fashion.

Comment

Leadership in this context entails using the federal government's scientific resources for such activities as environmental measurements and cause-effect research (much of which is foreign) and the federal government's regulatory authorities which span the country and make industrial and international cooperation more readily achievable. Cooperation includes reliance on provinces for some of the scientific work, full information exchange with all affected provinces to promote common assessments of problems and provincial implementation, under agreements where appropriate, of federal controls on toxic chemicals.

Principle 11

Companies exporting or planning to export specified toxic chemicals to foreign countries shall notify the government of such an export and Canada shall notify the foreign country of such an export. In addition, any information on such specified toxic chemicals shall be made available to the foreign country on request, provided that appropriate measures can be taken to protect the confidentiality and economic interest of the exporting company.

Comment

There is a growing realization (e.g. the OECD Chemicals Program) among industralized nations that information on chemicals in commerce and their potential hazards should be exchanged as a normal part of the trading process. In addition, there is a realization that industralized nations have a responsibility at least to notify a foreign country if not to control the export of a hazardous chemical to that country. This responsibility particularly applies to those small countries which do not have sophisticated mechanisms to assess or control hazardous chemicals.

TABLE 1

SUMMARY OF
PRINCIPLES AND THEIR IMPLICATIONS

NO	PRINCIPLE	IMPLICATIONS FOR PRODUCERS/USERS	IMPLICATIONS FOR GOVERNMENT
1	onus on producer/user not to damage	to take all reasonable measures including complete avoidance, substitution, etc.	to provide information, guidance and regulation, and to monitor compliance
	. where regulation has been made	- to abide by regulation	
	. where no regulation has been made	- to avoid damage	
2	proof of safety on producer/importer	to provide necessary tests to demonstrate safety	to provide information on testing procedures
3	controlled chemicals w/o identified safe thresholds	to use best technology for reduction of releases, including zero releases and alternative processes	to provide information, guidance and regulation
4	new or newly introduced chemicals	systematic evaluation in accordance with requirements	- to establish requirements - to use information available internationally
5	provision of information about existing chemicals	to provide information as requested	to maximize use of available information and to avoid duplication
6	normal or accidental discharge	obligation to provide info on nature of discharge and to report all accidental discharges	to assess information obtained

NO	PRINCIPLE	IMPLICATIONS FOR PRODUCERS/USERS	IMPLICATIONS FOR GOVERNMENT
7	responsibility of individuals using products containing hazardous chemicals	complementary to principle 1: individual users of products containing chemicals have similar responsibilities to producers/users of toxic chemicals	need to specify nature of products and provide guidance for reporting, etc.
8	public nature of information	information will be made public except that of commercial confidential nature	responsibility to provide info and responsibility to protect commercial confidentiality
9	encouragement of alternatives	to engage in the development of alternative products, etc.	to encourage and support R&D in alternatives
10	leadership role of federal government	generally, national system of regulations	cooperation with provinces to avoid duplication and assure single window for industry
11	inform recipient countries of exported toxic products	report exports to government	need for information transfer system and manifest control

3. OBJECTIVES

The purpose of this section is to identify objectives in common of all DOE programs dealing with toxic chemicals, by which the effectiveness of the TCMP can be measured.

The objectives below are formulated in a general way. They need refinement and precision in order to serve as operational objectives for program management. They apply initially to the DOE program. As with principles, they require agreement with other departments and agencies in order to become federal government objectives.

(1) To prevent or control the entry of harmful quantities of toxic chemicals to the various components of the environment - air, water, land, biota, and man.

(2) To minimize or ameliorate the adverse effects of chemicals now in the environment.

(3) To encourage the development and promotion of alternate products, processes, and technologies which are less harmful to the environment.

(4) To inform the public on the origin, pathways, accumulation and effects of toxic chemicals released to the environment and on strategies for their control such as regulation, alternate products and processes.

4. A PROGRAM FRAMEWORK

In order to provide an outline for a program for the management of toxic chemicals, to define management requirements and to identify responsibilities, a framework for the handling of toxic chemicals was developed.

Figure 2 provides a schematic expression of that framework. It omits all feedbacks and iterations which are, of course, essential components of the program. The following description of the functions has served as the basis for defining managerial responsibilities in Section 6.

(1) Environmental Measurement

This function involves monitoring and surveillance and the actual taking of measurements on the incidence and accumulation of specific chemical substances.

It includes:

i) identification and quantification of known and of "new" (previously undetected), potentially toxic, chemicals in the environment;

ii) identification of instances where environmental objectives designed to protect health, to prevent transboundary damages or damages to "federal" resources have been violated;

iii) determining trends in environmental concentrations of identified toxic chemicals.

The monitoring program must be conceived so that:

- concentrations in water, air and minerals can be related to those in biota, including man, and to sources and sinks of the chemicals.
- it is selective to ensure the effective use of resources.
- it is well-integrated with provincial programs, likely best achieved through formal agreements, as already requested by some provinces,
- results are interpreted and reported for assessment and for development of Plans of Action.

The input to this function is the taking of samples, analyses, quality control and inter-comparisons based on understanding of ecological and environmental processes. The outputs are quantitative and qualitative data which lead to assessment.

(2) Inventory

This function consists of recording the commercial information (quantities, location, points of releases) on toxic chemicals. Within DOE inventory work is undertaken by EPS.

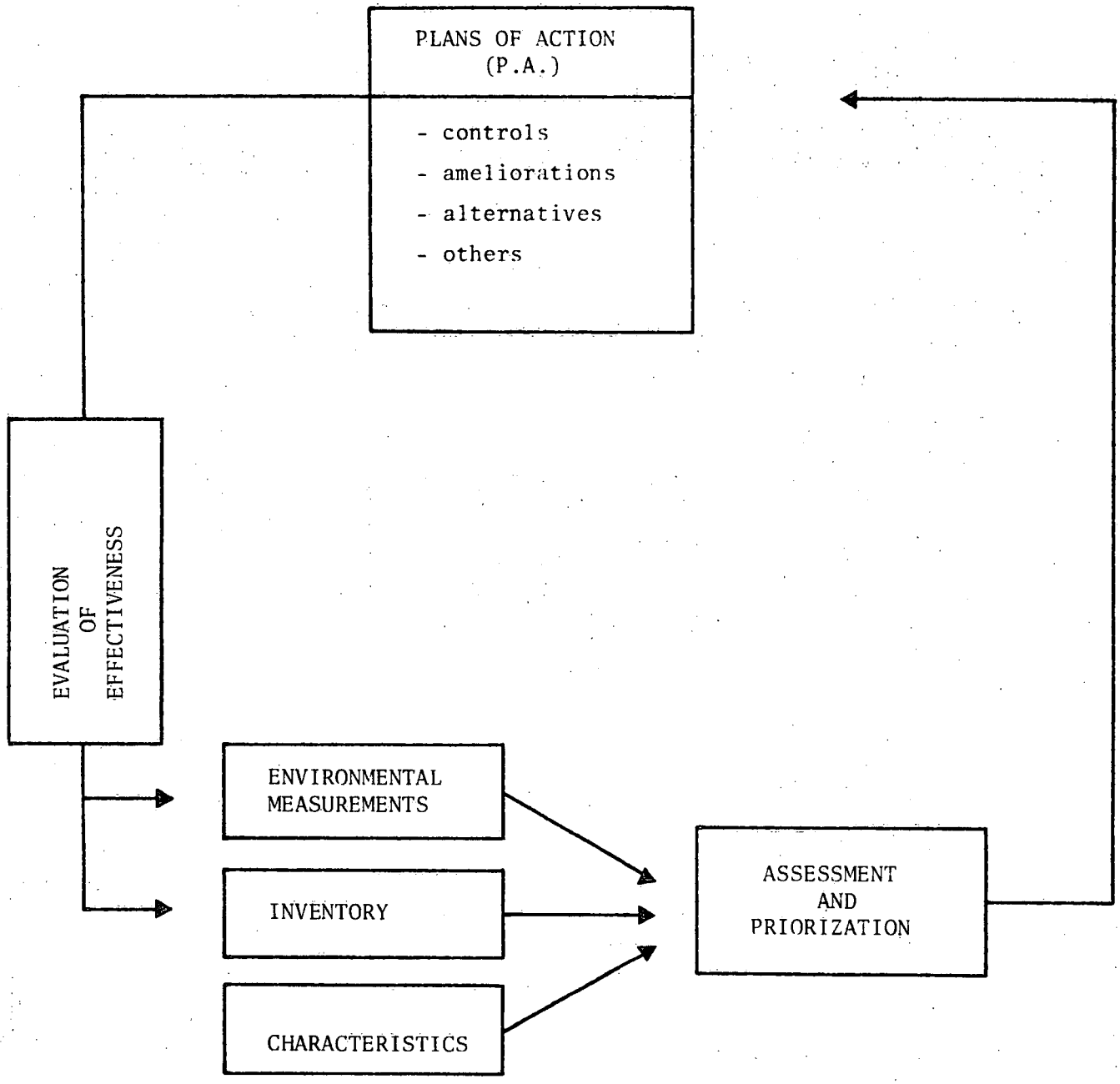

FIGURE 2

Schematic Representation of Program Framework for

Toxic Chemicals Management Program

(3) Characteristics

Research on pathways, transformations, chemical characteristics, bioaccumulation, toxicity to biota including man, is conducted by many agencies and universities. The key federal ones are DOE (CWS, IWD, CFS, AES), DFO, NH&W, and through NRC and MRC.

The federal government, through DOE, should develop a well coordinated program to provide leadership on characteristics research.

(4) Assessment

This function involves a series of steps including, most often, a Preliminary Assessment based on initially available data identifying the further measurement, testing, surveillance or research required for a Final Assessment.

The input to Assessment comes from a combination of information obtained in Measurement, Inventory and Characteristics. Its output is an assessment of potential effect and a statement of priorities leading to the development of Plans of Action.

The assessment function requires establishment of a permanent centre with full-time dedicated staff plus experts seconded for specific full-scale assessments.

(5) Plans of Action

On the basis of the information provided by the Assessment Centre, Plans of Action are developed to provide an appropriate response to the assessed threat. Action can take the form of the provision of information and warnings, the establishment of controls, the identification of remedial and ameliorative measures or of substitutes and alternatives.

This function, along with assessment is central to the management of the program and requires full-time, dedicated resources.

Note on management

The functions described above do not all require to be managed centrally in order to operate in harmony.

The bulk of the activities related to Environmental Measurement and to Characteristics, while essential to the effective management of toxic substances, are often undertaken to serve other goals as well. These activities are undertaken by a multiplicity of government agencies whose existing infrastructure can generally be employed at comparatively low cost to provide information of particular importance to the management of a toxic substances program.

As a consequence, effective management of these functions rests essentially on influencing the course of on-going programs through planning and funding:

Planning - Institutional arrangements will have to be established which will provide the opportunity to influence the allocation of resources to those areas considered of priority in the management of toxic substances.

Funding - Agencies will have to receive supplemental funding to undertake specific work.

The Assessment and the design of Plans of Action are central to the management of the program. They should be defined and located under the responsibility of the Program Manager and provided with permanent resources.

5. THE EXTERNAL DIMENSIONS OF THE PROGRAM

This report deals with the management of toxic chemicals essentially in terms of the Department of the Environment. However, a comprehensive approach to the issue involves a number of federal departments and agencies, provincial governments, the private sector and the international community. This section sets out principles to guide the establishment or development of relations with those outside the department.

Other Federal Departments and Agencies

- There are different degrees of interest and involvement of other departments; these should be recognized and relations determined accordingly. Specifically,

    - Health & Welfare is very much a partner of DOE since the Minister of Health and Welfare is co-responsible for the Environmental Contaminants Act;

    - A number of other federal departments, including particularly, Agriculture, Fisheries & Oceans and the National Research Council have complementary roles to DOE in toxic chemicals measurement, research, protection and control;

    - A number of other departments, in particular ITC are interested in the impact of controls and regulations on the economy.

- DOE should take the lead in seeking bilateral agreements with those departments most directly involved in order to define respective responsibilities, adopt a common set of policies and objectives and determine their participation in the program in order to arrive at a comprehensive and consistent federal toxic chemicals management program.

- Consideration should be given to the necessity of establishing a formal framework for cooperation and coordination. Such a framework might be provided by an interdepartmental committee on toxic chemicals. The existing Federal Interdepartmental Committee on Environmental Contaminants does not serve this purpose effectively.

Federal-Provincial Relations

- Provinces have jurisdiction over many of the activities that generate, use or are affected by chemicals. They thus have an essential role to play in the control of toxic substances.

- The role assumed by the federal government should encourage the active participation of the provinces, in particular in the development and execution of Plans of Action.

- Relations with the provinces will be governed by the principles set out in the draft environmental protection legislation which will provide for formal consultation and delegation mechanisms.

- Federal-provincial cooperation and agreements will provide for monitoring and surveillance of toxic chemicals in the framework of overall monitoring programs.

- The principle of a single window access and reporting by industry will be observed by using provincial delivery mechanisms through specific instruments of delegation and by encouraging, through guidelines and other non-mandatory instruments, actions under provincial authorities.

The Private Sector

- A basis of the TCMP is the recognition that the protection of health and the environment from Toxic Chemical contamination in Canada is primarily a responsibility of producers, importers and users.

- Socio-economic assessments will precede imposition of controls and regulations in accordance with present federal policy.

- The Public Participation Program of the department will ensure that relevant information is made available to all concerned and that the process for the establishment of regulations will involve systematic participation of the public and of interest groups.

International Cooperation

- Canada relies to a significant degree upon foreign research on characteristics specially for new chemicals. It has a vested interest in the successful management of the problem on a world-wide basis.

- DOE will continue to participate actively in the Chemicals Program of OECD and will work towards the successful completion of that program.

- DOE supports the principles emerging from the OECD Chemicals Program, particularly those related to international testing standards and encourages the adoption of effective testing protocols for new chemicals.

- DOE will seek to obtain maximum benefits from arrangements made for international recognition and acceptance of testing procedures.

- DOE will continue to participate in the UNEP program for identifying priority lists of toxic chemicals.

- DOE will encourage consideration by the international community of problems related to the chemical composition of imported articles where toxic substances could be released to the environment as these articles are used or deteriorate.

- DOE will promote the development of export procedures to ensure the provision to other countries of information on toxic chemicals exported from Canada to those countries.

6. MANAGEMENT OF PROGRAM

The Program Framework described in Section 4 provides the basis for identifying the management functions and structure of the program. In particular, the Program Framework recognizes that Measurement, Inventory and Characteristics are functions to be carried out by existing services/organizations, often as part of other programs. Assessment and development of Plans of Action were identified as functions requiring increased emphasis and managed under the responsibility of a full-time Program Manager.

Factors

- as a program of the department, the Toxic Chemicals Management Program must come under the responsibility of a Service ADM; (Figure 1)

- there must be a full-time Program Manager with appropriate authority and responsibility, reporting to this ADM;

- the functions of the Program Manager include:

  (i) Planning:
  - setting objectives
  - having an overview of total departmental effort
  - ensuring a convergence of all elements of the program towards the stated objectives
  - providing medium and long term goals for the program

  (ii) Policy Development:
  - formulating and recommending department (and federal) policies on Toxic Chemicals Management.
  - stimulating the development of alternative approaches and modes of intervention

  (iii) Management:
  - the direct management of the Assessment Centre and the preparation of Plans of Action (PA's)
  - providing guidance, through the appropriate structures to those elements of the program not under his direct responsibility

  (iv) Funding:
  - preparing annual program budgets for the activities under his direct responsibility and one for the overall TCMP.
  - providing incremental funding to facilitate the achievement of specific objectives, through Services or through RDGs as appropriate.

  (v) Information:
  - assuring the design and implementation of an appropriate departmental information program.

- appropriate linkages must be developed with the Services, the Regions, other departments and the provinces.

Structure

The Task Force recommends the following structure for the management of the program:

(i) the ADM/EPS be designated as the ADM responsible for the TCMP

(ii) a full-time Program Manager be appointed, reporting to the ADM/EPS, with the responsibilities for planning, policy development, management, funding and information as outlined above

(iii) appropriate staff be assigned to the Program Manager

(iv) the RDGs be responsible for:

- the design of appropriate Plans of Action where these are specific to their regions in cooperation with the Program Manager, other federal departments and the provinces;
- harmonizing DOE activities with other departments in their region, within agreed interdepartmental frameworks.
- negotiating agreements with the provinces
- providing resources to achieve specific regional objectives
- participating in the annual review and planning of the program.

(v) a Steering Committee be established of

- the ADM/EPS (Chairman)
- the ADMs AES, CFS, EMS, Manager of the Great Lakes Water Quality Program (the Great Lakes Water Quality Program Manager has direct responsibility for a major part of the department's activities on toxic chemicals) (members)
- the Program Manager (executive secretary)

and that the Steering Committee be responsible for
- approving annual reviews of the program
- approving annual plan and budget
- allocating resources
- recommending appropriate policies to Senior Management Committee.

The Task Force also recommends that the responsibilities for leading or coordinating other activities identified in the program framework be allocated as follows:

- environmental measurements: ADM/EMS in consultation with the Program Manager, ADMs AES and CFS, and the RDGs; the environmental measurements component is the most costly, and as much as possible must be achieved by modifying measurements programs established for other objectives, in order to meet objectives of the Toxic Chemicals Management Program. The key mechanism required to assist the ADM in bringing an ecosystem-based measurement plan to the Steering Committee for annual approval is a Task Force including the Program Manager and the RDG's.

- inventory: ADM/EPS, on advice of Program Manager;
- characteristics (research): ADM/EMS, on advice of Program Manager and other Services.

Regional programs

The Task Force identified the likelihood that special programs would be established to deal with problems of a specifically regional character (e.g. Great Lakes pollution in Ontario, herbicides in the Prairies, budworm spraying in the Atlantic). Such programs could be established as "regional integrated programs" (as defined by the department) and managed by the RDG reporting to the Program Manager, or to the appropriate ADM(s).

Alternatives

The Task Force considers it essential that the TCMP be centred on a responsible ADM and a full-time Program Manager. It also recognizes that the form of management must be adapted to the diversity of programs and the existing responsibilities within the department.

Two variations to the proposed management responsibilities were examined in detail:

- The RDGs could have the responsibility for the management and implementation of the program in their region. This would place emphasis on the adaptation of the program to regional differences and cooperation with provinces and regional groups. The Task Force does not recommend this alternative given the current structure of the department and the responsibility of the ADMs for the management of the resources allocated to them.
- the Steering Committee of the program could be composed of the RDGs rather than of ADMs. However, given the ADMs responsibility for resources, such a committee would be, of necessity, a planning and advisory committee rather than a decision-making committee for the allocation of resources. The Task Force considered the possibility, in such a case, of SMC acting as the management committee for the program. This would require a change in the present role of SMC (if it were to assume management of major departmental programs) and is judged to be beyond the scope of the Task Force.

7. RELATED ISSUES

In examining the program framework, the Task Force addressed briefly some issues related to the TCMP and where further action is recommended.

Management of Hazardous Wastes

The management of hazardous wastes is recognized as an integral component of a toxic chemicals program. Early action is required (by the ADM/EPS) to clarify the respective federal and provincial roles and responsibilities in this regard. Federal responsibility must be defined in particular with respect to

- transboundary shipments
- multiprovincial disposal facilities
- "acceptable dump sites"
- possible transboundary effects of disposal
- financial support to disposal programs

Radionuclides

Radioactive substances are part of the set of toxic chemicals. There are, however, specific regulatory mechanisms established for these substances. There is a need for the department to examine and clarify its internal organization and assignment of responsibilities to ensure greater effectiveness and efficiency. The ADMs of EMS and EPS have undertaken to review and to report to Management Committee an appropriate assignment of responsibilities, with the assistance of the Science Advisor.

Legislative Implications

The endorsement by the government of the policies proposed in this report will lead to significant changes in the existing Environmental Contaminants legislation. Such changes should be identified and addressed in the preparation of the new environmental protection strategy and legislation. The proposed Environmental Protection Act would then cover in a comprehensive way the responsibilities of this department with respect to TCMP. Comparable changes might be required in other Acts.

Common Services

One of the largest single costs for the department in this program is chemical analyses for toxic chemicals. In order to undertake the analyses, extremely high capital and operating costs are incurred. Several previous reports of the Department (e.g. the Aquatic Environmental Quality report) have emphasized the need for effective coordination of analytical laboratories, especially the purchase of costly equipment. As a result, Regional laboratory committees have been established to coordinate workloads, staff development and equipment purchases. The department should confirm the responsibility of the RDGs to ensure that these Committees function effectively and give the RDG responsibility for approval of equipment purchases exceeding $10,000.

8. CONCLUSIONS AND DECISIONS

Conclusions

There is an increasing risk to society from the growing use of a very large number of chemicals, many of which possess deleterious properties.

Within the Department there are a number of activities dealing with toxic substances which are being carried out in response to different, legitimate mandates and objectives.

There is a need to identify and acknowledge the common purpose which must be served by the programs of Services in contributing to a toxic chemicals program in the department. Thus, given the legitimate and continuing nature of the objectives of Service activities involving toxic substances, there is a need to determine objectives held in common which must be met as well as the specific activities to be carried out thereby providing guidance and coherence to the department's efforts towards the management of toxic chemicals.

Therefore, a comprehensive approach to toxic chemicals management, based on the proposals and recommendations presented in this report, is required in the Department of the Environment.

Decisions

At its meeting of January 24, 1980, Senior Management Committee received the report of the Task Force, approved the conclusions and recommendations of the report, and decided

(1) To accept the principles outlined in Section 2 as a general basis for action by the department and for reaching agreements with other departments on federal policies and programs, subject to further development and refinement.

(2) To incorporate those principles in the environmental protection strategy of the department and in the draft environmental protection legislation.

(3) To assign to the ADM of EPS the responsibility for the Toxic Chemicals Management Program.

(4) To approve the appointment of a full-time Program Manager, with the role described in Section 6 of the Report, reporting to the ADM of EPS.

(5) To charge the Program Manager with the responsibility for preparing, as a first priority, a statement of the objectives of the program (in terms of outputs), a plan of action and a budget.

(6) To form a Steering Committee, chaired by the ADM of EPS, comprising the ADMs of AES, of CFS, of EMS and the Program Manager, Great Lakes Water Quality Program as members and the Program Manager, TCMP, as Executive Secretary.

(7) That the Steering Committee have responsibility for implementing the recommendations of the report not explicitly referred to in this decision.

(8) That the Steering Committee report to Management Committee on the implementation of this report and on progress of the program within six months and annually thereafter.