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**CANADA'S RESPONSE  
TO THE  
RECOMMENDATIONS  
IN THE  
EIGHTH BIENNIAL REPORT  
OF THE  
INTERNATIONAL JOINT COMMISSION**

**OCTOBER 1997**



## INTRODUCTION

The Canadian Great Lakes Program is delivered through *The Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem*. This Agreement, signed in 1994, commits the federal and provincial governments to work jointly to achieve specified measurable results that contribute to the restoration of degraded areas, the prevention and control of pollution and the conservation of human and ecosystem health.

The responses to the recommendations of the International Joint Commission's Eighth Biennial Report reflect the input of a number of federal and provincial agencies which contribute to the overall Canadian program on the Great Lakes. Where recommendations speak to binational programs or activities, the Canadian responses have been developed in consultation with the United States. In this regard, the Commission should find that the respective responses of the two Governments are largely consistent.

The Commission is aware of the significant changes that are occurring in Canadian government agencies at both the federal and provincial level. Most agencies, including those dealing with environment and natural resources, are experiencing dramatic declines in budgets as part of broad-based strategies to reduce government expenditures and debt. In response, agencies are involved in the review of programs and adjustment of activities. With respect to the Great Lakes, some of these reviews are ongoing and the full implications are yet to be realized. This will impact the completeness of responses to some recommendations.

Despite this situation both the Canadian and Ontario Governments are maintaining their commitment to the Great Lakes by identifying key priorities and protecting associated resources to the extent possible. This may result in the transfer of particular Great Lakes responsibilities between agencies or the development of cost-sharing arrangements. The delivery of the *Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA)* is a priority in these deliberations.

## RESPONSE TO RECOMMENDATIONS

The Commission recommends to the Governments, and where appropriate, others:

1. a) **Identify and review proposed reductions in regulations, monitoring and enforcement programs and scientific research concerning the Great Lakes Basin Ecosystem, particularly reductions in environmental and natural resource agencies;**

There are no anticipated reductions in federal environmental regulations. In fact, some initiatives have been taken to strengthen regulatory action. A major statutory

review of the *Canadian Environmental Protection Act (CEPA)* has been undertaken and a revised Act introduced in the House of Commons in December 1996. The bill, co-sponsored by the Ministers of Environment Canada and Health Canada, would strengthen and modernize *CEPA*, improve enforcement, and establish pollution prevention as the cornerstone for reducing the presence of toxic substances in the environment. The June 1997 federal election has intervened in the passage of this bill and the new government has indicated its intentions to re-introduce a bill to revise *CEPA*.

The Province of Ontario through its Ministry of Environment and Energy, has embarked on a process of reviewing its environmental regulations. The Province has indicated that the guiding principle for the review is to streamline regulations and reduce red tape without compromising the existing level of environmental protection. Some reforms have already resulted in stricter environmental protection. In February 1997 regulations were revised or introduced to reduce gasoline vapour emissions and reduce the amount of volatile organic compounds, smog precursors, being emitted to the air during the summer months. As part of regulation review the banning of methanol as heat transfer fluid in ground source heat pumps is being proposed to prevent groundwater contamination.

Several reviews are underway to assess the impacts of budget reductions on scientific research and monitoring and surveillance programs on the Great Lakes. There will be an overall reduction in these programs and present efforts are directed to identifying priorities and securing sustained funding.

- b) identify and review all proposed legislative and regulatory initiatives expected to reduce requirements for environmental and natural resource protection within the Great Lakes basin;**

There are no federally proposed legislative and regulatory initiatives expected to reduce requirements for environmental and natural resource protection in the basin. The Province of Ontario has stated that proposed provincial legislation and regulatory initiatives will not reduce environmental protection. The Province will consult with the public through the Environmental Bill of Rights Registry on each proposed regulatory change.

- c) assess the impacts of these initiatives on the requirements of the Boundary Waters Treaty and Great Lakes Water Quality Agreement; and**

Federal and Provincial legislative and regulatory initiatives will not detract from meeting obligations under the Boundary Waters Treaty and the Great Lakes Water Quality Agreement.

- d) **report to the Commission their findings and specifically whether Agreement-related programs will be reduced below the levels that will achieve the objectives of the Great Lakes Water Quality Agreement.**

Agreement-related programs will be reduced. The extent and the nature of such reductions are the subject of ongoing federal and federal-provincial discussions. Programs will continue to be directed to the achievement of the objectives of the Agreement but it is anticipated that the pace of activity and the rate of progress will be slowed. As results from reviews and discussions become known the Commission will be advised.

2. a) **Continue to target persistent toxic chemicals for virtual elimination from production and commerce;**

Under the Canadian *Toxic Substances Management Policy*, released in June 1995, substances that are toxic, persistent, bioaccumulative and predominantly anthropogenic, will be targeted for virtual elimination from the environment and appropriate management options will be put in place to accomplish this objective. In March 1997, the federal government announced the targeting of 13 substances for virtual elimination from the Canadian environment.

In addition to this policy, assessments of substances will continue under the *Canadian Environmental Protection Act (CEPA)* and its Priority Substances List. Substances found to be toxic under the Act are subject to the development and implementation of management strategies protective of human health and the environment and applicable throughout their life cycle.

The registration process for pesticides under the *Pest Control Products Act* also recognizes and addresses concerns regarding environmental toxicity, persistence and bioaccumulation and is consequently supportive of the *Toxic Substances Management Policy* and the intent of this recommendation.

Ontario is developing a Toxics Management Plan to build on the federal and current provincial initiatives. Ontario has also developed a three-year plan for the development of standards for air toxics which is currently out for consultation. To address the smog problem in Southwestern Ontario, the provincial government is developing a Smog Plan. The initial framework with set reductions in smog precursors was published in 1996. The province is currently negotiating reduction targets with individual sources to reduce emissions of smog precursors.

- b) continue enforcing performance requirements or standards for known uses and locations of these substances as minimum interim requirements; and**

Canada has made significant progress in controlling persistent toxic substances from effluents and emissions (e.g., dioxins in pulp mill effluent) and will continue to enforce performance requirements and standards for known uses and locations of such substances.

The *Toxic Substances Management Policy* puts forward a preventive and precautionary approach to the management of toxic substances. Persistent, bioaccumulative and toxic substances that arise predominately from human activity are targeted for virtual elimination. The policy firmly establishes the basis for the federal government's position on toxic substances management in discussions with the provinces and the international community. Basic elements of the Policy are to be incorporated into the revised *CEPA*.

To address the release of persistent toxic substances into Ontario's waterways, the provincial government developed the *Municipal-Industrial Strategy for Abatement (MISA)*. Nine regulations have been developed for nine industrial sectors. Each regulation specifies effluent limits on a plant-by-plant basis. As a result of *MISA* there has been a 75% reduction in *MISA* regulated compounds (including dioxins and furans) entering Great Lakes waterways. Effluent limits for the remaining five sectors will become enforceable by 1998.

- c) complete and implement a Binational Persistent Toxics Virtual Elimination Strategy that targets all substances meeting the Agreement definitions of persistent and toxic, for zero discharge to the environment of the Great Lakes basin.**

The two countries signed *The Great Lakes Binational Toxics Strategy: Canada - United States Strategy for the Virtual Elimination of Persistent Toxic Substances in the Great Lakes* on April 7, 1997. The Strategy specifies actions and provides a systematic analytical approach to direct efforts towards the goal of virtual elimination of targeted substances. The Strategy is aimed at sources of these substances arising from human activity and will achieve the goal of virtual elimination through a variety of programs and actions, with the primary emphasis on pollution prevention.

The development of the Strategy has entailed considerable stakeholder input and a commitment is made to further public consultation in the development and implementation of action plans under the Strategy. The Strategy is not just a strategy for government action. It calls upon all stakeholders in the Great Lakes community to work together to meet the specific challenges required to progress to virtual elimination of these persistent, toxic and bioaccumulative substances.

3. **Lead targeted discussions among governments at all levels, business, labour and other appropriate organizations in a variety of economic sectors, to identify obstacles to and opportunities concerning the transition from the production and/or use of persistent toxic chemicals to more environmentally and humanly sustainable alternatives.**

The Governments of Canada and Ontario have established significant programs to promote pollution prevention in all sectors in the Great Lakes basin. Pollution prevention Memoranda of Understanding and other initiatives such as the federal *Accelerated Reduction/Elimination of Toxics (ARET)* and the provincial *Pollution Prevention Pledge Program (P4)* are useful fora for facilitating discussions among governments and stakeholders to identify obstacles and opportunities concerning the transition from the production and/or use of persistent toxic substances to more sustainable alternatives. Other mechanisms include the multi-stakeholder *Strategic Options Process* under *CEPA* to develop management options for priority toxics and the Province's initiative to develop agreements with industry to encourage continual environmental improvement. Socio-economic analysis is an integral part of these efforts.

The leadership roles of the Ontario Farm Environmental Coalition through the delivery of the Environmental Farm Plan, and AgCare (Agricultural Groups Concerned About Resources and the Environment) in promoting education and certification for the proper use pesticides, together with the implementation of the Food Systems 2002 Program of the Ontario Ministry of Agriculture, Food and Rural Affairs, have helped to reduce reliance and address concerns on pesticides.

4. **Adopt toxics management strategies that target broad classes of chemicals and contain "reverse onus" provisions that require proponents of the production, use or import of chemicals to demonstrate:**
  - a) **zero discharge for persistent toxic substances deemed essential for use; and**
  - b) **emissions of other materials to the Great Lakes environment at less than toxic amounts.**

In summary, Canada agrees with the IJC that, as a general rule, toxics management should require proof of safety by industry rather than the establishment by government of proof of harm. As well, the long term objectives of virtual elimination from the environment for persistent, bioaccumulative and toxic substances, and protection of public health and the environment for other toxics are being introduced into legislation and programs through application of the federal *Toxic Substances Management Policy* and the Canadian CCME pollution prevention strategy. Where practicable, classes of

substances will continue to be targeted to accelerate Canada's shift to a sustainable development society.

The Government of Canada has adopted a *Toxic Substances Management Policy* that specifies that toxic substances determined to be persistent, bioaccumulative and resulting from human activity will be virtually eliminated from the environment. All other toxic substances of concern will be managed throughout their entire life cycle to prevent or minimize their release to protect human health and the environment. The Policy, which has reverse onus provisions, provides clear direction on toxic substances that is influencing the development of legislation and programs.

Pollution prevention is the preferred Canadian approach to environmental protection. The adoption of *A Strategy to Fulfil the CCME Commitment to Pollution Prevention* by the Canadian Council of Ministers of the Environment (CCME) in May 1996 signals that government programs will encourage the avoidance of the creation of pollutants instead of concentrating on controlling releases.

On a practical level, these policies have resulted in proposals for significant improvements to *CEPA* including the addition of pollution prevention planning requirements, new provisions for biotechnology, more effective authorities for the assessment and control of toxic substances and the addition of powers regarding the prevention and control of international water and air pollution from Canadian sources.

Broad classes of persistent toxic substances have been targeted through regulatory and non-regulatory programs (e.g., *CEPA* regulations for PCBs, dioxins, furans, polybrominated biphenyls, polychlorinated terphenyls and ozone-depleting substances). New substances are a broad category dealt with under *CEPA*. Over 500 substances or classes of substances are screened each year to ensure that they can be used safely in Canada. *CEPA* requires those who wish to manufacture or import new substances to provide proof that this can be done while safeguarding the health and environment of Canadians. New substances found to be toxic or suspected of being toxic are subject to prevention and control measures including bans.

Substances that are in use in Canada are part of the economic lifeblood of the country. Changes in use, or their elimination from use for environmental or human health reasons, require a careful consideration of social and economic consequences. As a result, assessment and regulation of toxic substances have been complemented by a variety of other management strategies designed to accelerate reductions in releases to the environment.

The *National Pollutant Release Inventory (NPRI)* provides Canadian communities with information on the nature and quantity of specified substances released into the environment from local industrial facilities. Publication of this information is an incentive for companies to take measures to reduce discharges. An analysis of *NPRI*



data and comparable U.S. data was undertaken to assess releases within the Great Lakes basin. These data will be useful to governments and the IJC to track progress.

Canada's *Accelerated Reduction/Elimination of Toxics (ARET)*, a joint industry/government initiative, has engaged over 278 facilities in a process that aims for the virtual elimination of 30 persistent, bioaccumulative and toxic substances and reductions of 87 other toxic substances. For persistent, bioaccumulative and toxic substances, a ninety per cent reduction in releases is targeted for the year 2000; a fifty per cent reduction is the target for other substances.

In Ontario, pollution prevention memoranda of understanding (MOUs) have been signed with motor vehicle manufacturers, auto parts manufacturers, metal finishers, and others to implement pollution prevention measures to reduce or eliminate the use of substances of concern. These MOUs capture a broad range of substances used in each sector. An estimated reduction of 7000 tonnes of priority toxics has been achieved in Ontario as a result of these various MOUs since 1992. The Province has worked with hospitals to reduce mercury use and is currently working with the Ontario Dental Association to address the release of mercury from spent fillings.

Chlorinated substances are a particular concern. The federal *Chlorinated Substances Action Plan* provides strategic direction for progressing towards safer management of this broad class of substances. This science-based action plan includes both regulatory and non-regulatory measures, targeting over 100 chlorinated substances, or classes of substances, of concern.

**5. Continue to take a strong leadership role in multinational discussions aimed at preventing, controlling and eliminating persistent toxic chemicals in global production and commerce.**

Canada is committed to taking a significant role in multilateral discussions aimed at reducing persistent toxic substances in global production and commerce.

Canada has played, and will continue to play, a leadership role within the United Nations Economic Commission for Europe's (UN ECE) *Convention on Long-Range Transboundary Air Pollution* (ratified by 40 member countries including countries in Western and Eastern Europe, the U.S. and Canada) for the development of a *Protocol on Persistent Organic Pollutants (POPs)*. The protocol will initially aim to reduce or eliminate emissions of a manageable list of substances including pesticides, industrial chemicals and unintentional byproducts of chemical and thermal processes. It will also establish a process for taking action on additional substances as needs are identified. Formal negotiations started in January 1997 and are expected to be concluded within eighteen months. Canada is also participating under the Convention in the development of a protocol on heavy metals which will address mercury, lead and cadmium.

Canada has taken a leadership role in developing recommendations and information on international action for managing *POPs* under the United Nations Environment Programme (UNEP). The recommendations, which strongly support the development of a legally binding global instrument, will be considered at the 1997 sessions of the UNEP Governing Council and the World Health Assembly.

In addition, Canada is involved in ongoing negotiations on a *Convention on Prior Informed Consent (PIC)* which will be an international legally binding instrument for the application of the *PIC* procedure for certain hazardous chemicals and pesticides in international trade. The *PIC* procedure is a means of formally obtaining and disseminating the decisions of importing countries as to whether they wish to receive future shipments of certain hazardous chemicals covered by the procedure. The aim is to promote a shared responsibility between exporting and importing countries in protecting human health and the environment from the harmful effects of certain hazardous chemicals being traded internationally. Substances on the list of the current *PIC*, which is entirely voluntary, include PCBs, DDT and dieldrin. Toxaphene and hexachlorobenzene will also be included on the list in the future. It is likely that the existing *PIC* list will be the basis for the Convention when it is signed.

Within the Organization for Economic Cooperation and Development (OECD) Canada plays an active role in the OECD's Chemical Program, which is working towards harmonized policies and practical tools for protecting human health and the environment. The OECD has also become a forum for the international exchange of information and data on chemicals. The OECD status report on mercury was published in 1995 and in February 1996 the OECD Environment Ministers adopted a *Declaration on Risk Reduction for Lead*. Other current activities include harmonization of hazard and risk assessments among member countries, sharing the burden in investigating priority high production volume chemicals, and a new orientation towards the selection of priorities for and the implementation of risk management options.

Canada also actively participates in the OECD's Pollution Prevention and Control Group. This group looks into pollution prevention strategies and government policies that would promote eco-efficiency (i.e., developing credible sources of information on the life-cycle of products, promoting life-cycle management of products, and building intellectual and technical capacity). Initiatives of this nature will have a positive impact in terms of reducing the production and commerce of persistent toxic chemicals.

Within the North American regional context, in October 1995 the Canadian Minister of the Environment, together with Environment Ministers from the USA and Mexico, signed the *Resolution on the Sound Management of Chemicals* under the auspices of the NAFTA Commission for Environmental Cooperation. Country-specific action plans for PCBs, DDT, chlordane and mercury are in the final stages of completion. Criteria

are also being developed for use in selecting additional substances for action in the future.

Finally, Canada is firmly committed to working with its American partners to implement *The Great Lakes Binational Toxics Strategy*.

**6. Maintain legislative and regulatory baselines and identify goals sufficient to achieve the provisions of the Great Lakes Water Quality Agreement, as well as facilitate and encourage voluntary efforts by industries, communities and their own agencies to reduce discharges.**

In December 1995, Parliament passed amendments to the Auditor General Act requiring all federal departments and agencies to develop and implement a *Sustainable Development Strategy* to guide their operations, including international activities, in an environmentally sound manner. In addition, all departments have to institute an *Environmental Management System*. Parliament has appointed a Commissioner of Sustainable Development to audit the environmental protection actions of federal departments and agencies.

The proposed amendments to *CEPA* further strengthen the legislative basis for comprehensive protection of the Canadian environment, including the Canadian portion of the Great Lakes basin. Among other requirements, new provisions:

- encourage the expansion of pollution prevention efforts;
- promote participation by the public and First Nations;
- accelerate assessment and action on toxic substances; and,
- expand responsiveness to international air and water pollution issues.

**7. Support the restoration of Areas of Concern, help develop local knowledge and capacity for effective action in communities and professions such as education and health care providers, and continue to support the efforts of stakeholders involved in the restoration of Areas of Concern.**

The Governments of Canada and Ontario remain committed to the restoration of Areas of Concern. As of September 1997, 13% of all impaired beneficial uses in Canadian Areas of Concern have been restored, substantial progress has been made on meeting the restoration targets for numerous other impaired uses, and one location, Collingwood Harbour, has been the first Great Lakes Area of Concern to be delisted.

Canada is committed to active public involvement by local stakeholder groups in the restoration of Areas of Concern. Since 1988/89 the federal and provincial governments have spent over \$7 million in direct support of the public involvement program

associated with the development of Remedial Action Plans (RAPs) for Areas of Concern.

The federal Great Lakes Cleanup Fund and Action 21 Program support local restoration initiatives. In the former case \$52 million has been spent since 1990 on some 300 projects while in the latter more recently initiated program, \$680 thousand has been allocated in the last two years to 19 community-based environmental remediation projects.

Ontario is developing alternative delivery strategies which will provide funding for the establishment of area specific agreements to ensure that Remedial Action Plans are implemented. This will include funding for specific remediation activities which are required to delist specific Areas of Concern (e.g. the cleanup of Randle Reef, a contaminated sediment area in Hamilton Harbour).

As RAPs move from development to implementation, governments, together with other partners, are helping these stakeholder groups become more self-sufficient. Projects recently completed include the development of a marketing manual for Public Advisory Committees (PACs), a brochure PACs can use to approach other funding sources, and a community "tool-kit" to assist local stakeholder groups in becoming self-sustaining. Working with some key foundations, Canada is also developing a strategy to help build capacity in community stakeholder groups.

Canada believes in capacity building in communities as an investment in the future. It is a means of ensuring the lasting effects of restoration efforts made today. Examples of capacity building tools that have been developed for RAP stakeholder groups include:

- *Rehabilitating Great Lakes Habitats, a Resource Manual* which provides technical information on approaches to habitat rehabilitation projects;
- *A Resource Manual for RAP Participants: the Relationship to the Municipal Planning Process, Environmental Assessment and Municipal Programs* which identifies opportunities to address RAP objectives through the municipal level of government; and,
- *A Handbook for Health Professionals* on environmental health issues and a set of *Community Handbooks for Investigating Human Exposure to Contaminants*.

Other supporting initiatives include the compilation and distribution of Areas of Concern health statistics, Great Lakes Cleanup Fund project summaries reports, public signage on fish consumption advisories, and the funding of community directed health profile studies and health and environment projects.

8. **Join in supporting and adopting common protocols and fully protective health standards as a basis for the declaration of uniform sports fish advisories throughout the Great Lakes basin.**

Canada supports this recommendation and in large measure believes it has been achieved. Risk assessment protocols in Canada and the U.S. are not dissimilar and are comparable to those employed elsewhere such as in UN ECE countries. Sport fish advisories in Canada are fully protective of health and new research (provided to the IJC) demonstrates that human tissue levels of the key contaminants (PCBs, mercury and lead) in the blood of the majority of sport fishers in the Canadian Great Lakes basin are below known levels of concern. While fish consumption advisories may differ among jurisdictions (e.g., due to variations in contaminant levels and amounts of fish consumed in different parts of the basin) they do not differ in their capacity to guide people to consume fish in amounts that are protective of health.

9. **Develop a strategy to address the influence of air pollution on the Great Lakes ecosystem, including a bilateral process to:**

- a) **identify primary and secondary air pollutants transported to the Great Lakes basin from both sides of the Canadian - United States boundary;**

Canada supports this recommendation and believes the elements of a strategy for air pollution are largely in place. There are presently a variety of domestic and binational research, monitoring and source inventory activities underway in the basin. These efforts assist in the identification and assessment of problems and help direct the domestic pollution control programs of Canada and the U.S. Both countries use the Great Lakes experience in international initiatives relating to long-range transport of air pollutants. In addition, at a meeting in Washington in April 1997, the Canadian Environment Minister and the U.S. Administrator of the Environmental Protection Agency committed to the development of a joint plan of action to address transboundary air pollution. Rather than expending effort on the development of a new strategy, Canada believes the available resources should be concentrated on improving the implementation and effectiveness of work already underway.

Under Annex 15 of the revised Great Lakes Water Quality Agreement of 1987, the Parties agreed to conduct research, surveillance and monitoring, and implement pollution control measures for the purpose of reducing atmospheric deposition of toxic substances to the Great Lakes Basin. This has included the establishment of the *Integrated Atmospheric Deposition Network (IADN)* for the long-range transport of pollutants and the development of various Canadian and U.S. source and emission inventories for toxic substances generated in the basin. The limitations to this

approach, in terms of addressing this recommendation, are the scope of substances under consideration and the restriction to impacts of deposition.

This recommendation proposes to broaden the scope of the activity to include other air pollutants and effects of those pollutants in addition to deposition and resultant water quality impacts. Activities that contribute to the development of a knowledge base for primary and secondary pollutants in the basin include joint Canada-U.S. work on acidifying emissions through the *Canadian Air and Precipitation Monitoring Network (CAPMoN)* and associated modelling and research, the establishment of the *Canada-U.S. Air Quality Accord* (where the benefits of reduced loadings of acidifying emissions have already been realized) and the *Canadian National Pollutant Release Inventory (NPRI)* and the *U.S. Toxic Release Inventory (TRI)*. *The Great Lakes Binational Toxics Strategy* is seen as a driving force for the identification of substances and sources in the basin that must be addressed.

The development of the air toxics source and emission inventory for the Great Lakes basin continues both domestically and in conjunction with the Great Lakes Commission inventory project in the U.S. The goal is to develop a true basin-wide inventory that will be functional and accessible by both parties. On a broader scale, the *NPRI* and the *TRI* will continue to collect data on releases of substances by major point sources. Basin-specific data has and will continue to be extracted from the larger database. Such data will be utilized to assess progress on pollutant reductions in the basin and identify opportunities for further reductions.

**b) develop scientific data and criteria on exposure and related effects within the Great Lakes basin;**

Under the research component of *IADN*, temporal and spatial trends for pollutant deposition in the Great Lakes basin have been investigated. Additional work is required to augment this database. The extent of this work will be determined as part of the six-year review of *IADN*, which will also highlight other research and operational needs and changes required to strengthen the program's ability to address the current requirements of Annex 15.

Since its inception, *IADN* has focused on the determination of atmospheric loadings of toxic substances to the basin, and this will continue. Other programs, such as *CAPMoN*, *NPRI* and the National Air Pollutants Surveillance (NAPS) air quality monitoring network, contribute to the database of information on pollutant levels which is used in the determination of ecosystem exposures and effects in the Great Lakes basin.

Exposure impact assessment for the Great Lakes basin ecosystem is carried out through the programs of Environment Canada and Health Canada.

- c) **determine common acceptable levels of exposure consistent with emerging scientific knowledge of effects and the precautionary approach to regulation; and**

Environment Canada is currently working with Health Canada and the Provinces, under the Federal/Provincial Working Group on Air Quality Objectives, to develop air quality objectives for ozone (O<sub>3</sub>) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The scientific evidence gathered through the development of these objectives will contribute to the body of work needed to determine the practicality and achievability of common acceptable exposure levels in the Great Lakes basin. Ontario recently announced an interim ambient air quality criterion for inhalable particulates (PM<sub>10</sub>). This criterion will provide guidance for the many initiatives within Ontario's Smog Plan.

Health Canada is continuing the study of health impacts of persistent toxic substances through activities under the Great Lakes Health Effects Program. Assessment studies focusing on ozone, SOx/NOx (as sulphates/acid aerosols) and inhalable/respirable particulate matter are also continuing. Health Canada briefed the Commission in 1996 that these pollutants are found to be related to increased hospital admissions for cardiac and respiratory complaints, and the aggravation of asthma symptoms. Efforts will be made to understand the specific impact mechanisms for these pollutants, in order to more effectively target reduction strategies towards the serious problems. Studies on the economic costs to health and well-being of air pollutants will also continue.

- d) **agree on control programs consistent with Agreement provisions, including virtual elimination of persistent toxic substances. These programs should include achievable timetables for implementation and prevent increased emissions due to other regulatory decisions governing sources such as transportation and thermal power generation.**

Article V of the *Canada/U.S. Air Quality Accord* calls for each party to notify the other in cases where a proposed pollution source near the Canada/US boundary may impact on the environment of the other country. The article also calls for action by the notifying party to assess the impact of the proposed source, and mitigate the impact through appropriate measures. Proposed sources would also include other regulatory decisions governing sources such as thermal power generation (as in the U.S. Federal Energy Regulatory Commission's recent deregulation of the thermal power generation sector). This article could be used to ensure that new or modified sources do not lead to increased emissions to the basin. Canada's new Environmental Assessment Act provides the process by which new sources would be properly assessed to reduce or prevent transboundary impacts.

Under the *Canada-Ontario Agreement respecting the Great Lakes Basin Ecosystem (COA)*, programs for the control and virtual elimination of persistent, bioaccumulative and toxic substances from the basin are being developed and implemented. These programs, along with existing regulatory and voluntary activities for sources in the basin, form Canada's contribution to *The Great Lakes Binational Toxics Strategy*. Both *COA* and the *Strategy* include measurable targets and timeframes for implementation.

10. **Address radioactive materials consistent with other substances that meet the Agreement definitions of toxic and persistent, support the development and maintenance of inventories of radionuclide emissions to the Great Lakes, and ensure the continued reporting of pertinent data from environmental radiation monitoring systems.**

The Commission is referred to the response provided by Canada to a similar recommendation from the IJC's Seventh Biennial Report. Positions on the priority accorded radioactive substances and their treatment relative to other persistent toxic substances still apply.

However, federal discussions on the treatment of radioactive materials under *CEPA* are continuing. The Atomic Energy Control Board is working with Environment Canada to carry out a Priority Substance assessment of radionuclides to determine whether they are deemed toxic to the environment under *CEPA*. If radionuclides are determined to be toxic, they will be managed in a manner consistent with the *Toxic Substances Management Policy*.

Support for the maintenance of inventories of radionuclide emissions will continue and data from monitoring systems will be reported.