
DIRECTIONS ON Greening Government Operations

Greening
Government

JL
86
.E5
D5713
1995

Environment
Canada

Environnement
Canada

Canada

ISBN 0-662-23928-8

Catalogue No. En 40-497/1-1995E

Published by authority of the Minister of the Environment

For additional copies contact:

Inquiry Centre

351 St. Joseph Boulevard

Hull, Quebec K1A 0H3

Telephone: 819-997-2800 or 1-800-668-6767

Facsimile: 819-953-2225

Aussi disponible en français.

Directions on Greening Government Operations

Introduction	2
Background and Context	3
Requirements for the Greening of Government Operations	4
Pollution Prevention	4
Meet or exceed federal environmental regulations	4
Emulate Best Practices	4
Environmental Management Systems for Federal Departments and Agencies	4
Scoping Operations	5
Other Policies and Considerations for Greening Operations	6
Sustainable Development Strategies and Government Operations	7
Questions and Answers - Greening Government Operations	9
Appendix A: The Code of Environmental Stewardship for the Government of Canada	10
Appendix B: Overview of Federal Environmental Legislation	10
Appendix C: Greening Government Best Practices	12
Appendix D: General Principles for Environmental Management Systems	14
Appendix E: Roles Played in Greening Government Operations	15
Appendix F: Resources and References	16

Environment Canada Library
5204 - 50th Avenue, Suite 301
YELLOWKNIFE, NT X1A 1E2

Introduction

Over the past year, the federal government has begun a series of initiatives to ensure that environment and sustainable development considerations are built into the workings of all federal organizations. Most recently, the proclamation of the Canadian Environmental Assessment Act, the proposed amendments to the Auditor General Act, and the Toxic Substances Management Policy have joined with new, specific requirements for the Greening of Government Operations.

A Guide to Green Government, released in June 1995, details what sustainable development means for the way government does business and provides guidance for federal departments on preparing sustainable development strategies. This document, *Directions on Greening Government Operations*, provides details for federal departments and agencies on the Greening of Government Operations policy, expanding on the guidance related to operations that is provided in *A Guide to Green Government* and government-approved policy.

It's important to keep in mind that each federal department and agency has unique needs and priorities. The direction provided here is a general guide; departments should use the specific approach that best suits their needs and priorities within the general framework. It is the sustainable development results, not the process, that are important.

Background and Context

In 1992, the Government of Canada announced the **Federal Environmental Stewardship** initiative. Under this policy, departments and agencies were required to develop environmental action plans indicating how they would apply the *Code of Environmental Stewardship* (Appendix A) in their day-to-day operations. These stewardship action plans are to be updated annually. An Office of Federal Environmental Stewardship was established within Environment Canada to coordinate the initiative, and to promote and facilitate the adoption of the *Code*.

An Environmental Accountability Partnership (EAP) agreement was signed between Environment Canada and Treasury Board Secretariat in 1992. Its purpose is to improve existing coordination and alliances between government departments and help build consensus on environmental accountability issues as they relate to government operations. The EAP Steering Committee, representing all major custodial departments, has been instrumental in defining objectives for greening government operations, developing strategies to address specific environmental management questions and promoting environmental management system (EMS) implementation across the federal government.

The Federal Committee on Environmental Management Systems (FCEMS) is one of several subject-specific working groups that report to the EAP Steering Committee. The FCEMS works to identify and overcome common barriers and to share experiences and best practices in EMS implementation. (For more information about the activities of the EAP or the FCEMS, contact the FCEMS Secretariat at 819-953-6457.)

Amendments proposed to the Auditor General Act in 1995 will create the **Commissioner for the Environment and Sustainable Development** to provide a powerful accountability mechanism. The proposed amendments will also make the tabling of **Sustainable Development Strategies** in Parliament a legislative requirement of Ministers. These strategies will outline each department's concrete goals and action plans for integrating sustainable development into its policies, programs, and operations. Departmental strategies will provide the benchmarks against which progress towards sustainable development will be measured. The Commissioner for the Environment and Sustainable Development, within the Office of the Auditor General (OAG), will assess how well departments are doing in moving forward on sustainable development, by reviewing their progress in meeting their goals and targets and in implementing their action plans. The sustainable development strategy will encourage consolidation of departmental environmental responsibilities and thus simplify environmental reporting obligations for Ministers.

In April of 1995, the Federal government approved a coordinated approach to greening government operations, which builds on the requirements of the stewardship initiative. The policy on **Greening of Government Operations** commits federal organizations to address a number of specific issues in their sustainable development strategies. Departments and agencies must:

- ◆ meet or exceed federal environmental statutes & regulations
- ◆ emulate best practices from the public and private sectors
- ◆ develop and implement environmental management systems, including action plans.

The greening of government operations will form an integral part of sustainable development strategies.

Requirements for the Greening of Government Operations

Pollution Prevention

Federal departments are committed to giving priority to adopting the pollution prevention approach in the greening of government operations. Pollution prevention, which focuses on environmental protection and resource conservation, is defined as:

"the use of processes, practices, materials, products or energy that avoid or minimize the creation of pollutants and waste, and reduce overall risk to human health and the environment."

This approach is the basis for environmental decision-making in federal departments.

Meet or exceed federal environmental regulations

The Greening of Government Operations policy reiterates the federal Government priority to comply with applicable environmental legislation. This confirms the government's commitment to "meet or exceed the letter and spirit of federal environmental laws", as outlined in the *Code of Environmental Stewardship*.

The key federal statutes which focus on environmental quality include:

- ◆ the Canadian Environmental Protection Act,
- ◆ the Canadian Environmental Assessment Act,
- ◆ the Canada Wildlife Act,
- ◆ the Fisheries Act, and
- ◆ the Transportation of Dangerous Goods Act.

For a brief description of the above-named laws, see *Appendix B*.

Emulate Best Practices

Building on departmental accomplishments to date, Ministers have endorsed a range of "best practices" in seven areas (namely: procurement;

waste management; water usage; energy usage in buildings; motor vehicle fleets; land use management; and human resource management) to provide departments with a framework from which to start their planning. These build on the general direction set out in the *Code*. The complete listing of these "best practices" is provided in Appendix 4 of *A Guide to Green Government*; they are also listed in Appendix C of this document, for easy reference.

The best practices are based on successful practices that have proven effective in reducing the negative environmental impact of any organization's operations. In many cases, the introduction of these practices can also result in significant cost-savings. The clear economic and environmental benefits of reduced energy and water consumption, careful and efficient purchasing practices, and responsible fleet management are complementary.

This list of best practices may be added to as new, innovative approaches are identified. Departments should not limit their actions to the current list of best practices. Rather, they are the minimum reasonable activities that federal organizations ought to consider.

(A summary of current environmental activities in departmental operations is available from the Office of Federal Environmental Stewardship 819-953-0608).

Environmental Management Systems for Federal Departments and Agencies

In order to minimize any negative or harmful effects that their activities may cause on the environment, individual departments and agencies are to develop and implement formal environmental management systems (EMS). A properly designed EMS will provide the framework for practices to help a department or agency manage its environmental agenda and document, evaluate, and communicate its environmental performance.

An environmental management system is just that -- a system, encompassing practices, procedures, and processes, for implementing

environmental management. It allows an organization to ensure that its environmental goals are being met effectively and efficiently. An EMS assists organizations to clarify responsibilities, accountabilities, and priorities for dealing with environmental issues. An EMS also sets out a comprehensive way to monitor progress.

EMS principles are essentially a generic, proven approach to good management. As such, an EMS should ideally be integrated into an organization's existing management structure, in much the same way that a Financial Management System is.

Guidance on Priorities

Because of limitations on financial and human resources across the federal government, the policy on the Greening of Government Operations directs that the EMS should use risk management strategies for containing, mitigating or remediating risks according to the following priorities:

- ◆ compliance with legal requirements
- ◆ threats to human health and safety
- ◆ risks to the environment
- ◆ restoration of the environment

In addition, the overall design of an EMS should emphasize pollution prevention over control and remediation.

It's important to note that the development and application of an EMS is a dynamic, continuous improvement process and represents a long-term commitment to environmentally responsible management.

EMS Standards and Tools

A number of groups have developed standards which summarize the components of a good EMS. The greening of government operations policy supports as a starting point the CSA Z750-94 principles (See Appendix D). The International Organization for Standardization (ISO) is currently finalizing internationally agreed-upon EMS standards. The EMS standard, ISO 14001 and accompanying guidance document 14004, contain many of same concepts and principles as the CSA Z750-94 model. It is expected that ISO

14001/4, once finalized, will replace the CSA Z750 model, and will become the most widely used and accepted model in Canada and the world.

In addition to the general CSA and ISO standards, departments and agencies may also find the more detailed CSA document *Guideline for Pollution Prevention* (CSA Z754-94) very helpful in assisting them to integrate pollution prevention into their overall EMS.

In theory, implementing an EMS is straightforward and simply reflects good management and accountability practices. However, the commitment and individual tasks required to make it a reality can be time-consuming and may seem overwhelming.

To help departments get started, an *EMS Self-Assessment Guide* is available through the FCEMS Secretariat, in Environment Canada's Office of Federal Environmental Stewardship. The *EMS Self-Assessment Guide* walks through the main components of an EMS. It will help federal organizations to pinpoint which elements of an EMS they already have in place, and give them a good idea of where to focus attention when implementing and improving an EMS. This approach is endorsed by the Office of the Auditor General. The *EMS Self-Assessment Guide* is based on the ISO 14004 Guidance document and is supplemented by the findings of a study on EMS conducted by the OAG.

Scoping Operations

When considering operations, departments have been directed to refer to the chart in *Appendix E*. The table helps illustrate the variety of roles a department may play (consumer, responsible citizen, facilitator, regulator), and some of the potential implications and opportunities those roles present in greening operations. The chart assists in ensuring that the full range of a department's activities are considered. The content of your department's strategy regarding its operations should reflect these perspectives.

Other Policies and Considerations for Greening Operations

While not necessarily a legal requirement, **harmonizing with provincial standards**

demonstrates that the federal government is prepared to act as a good citizen and is not above meeting the standards of the communities in which it operates. In addition to obligations regarding federal laws, the Code of Environmental Stewardship committed the Government, where appropriate, "to be compatible with provincial and international standards". It would be contradictory for the federal government to ask others to take action to protect the environment if it isn't prepared to meet the basic environmental requirements faced by other Canadians. Rather, the federal government must strive to lead by example.

Federal organizations should also be aware of current **federal policies and international obligations** which further sustainable development. Sustainable development strategies are to integrate Canada's environmental, social and economic goals into the way the government manages its business. A review of federal sustainable development commitments and objectives is provided in *A Guide to Green Government*.

There are many ways in which departmental operations can make direct contributions to federal sustainable development goals. For example, federal departments and agencies can support the Canadian Biodiversity Strategy in their operations by managing land in a way that protects wildlife habitat and promotes biological diversity, and ensuring that products from threatened or endangered species and spaces are not procured. Similarly, federal organizations can help Canada meet the goals of the Framework Convention on Climate Change by purchasing energy-efficient equipment and products, using alternative fuels in their fleet vehicles, and reducing travel through teleconferencing, teleworking and other methods of electronic communications.

Treasury Board has set out several clear policy directions relating to the "greening" of federal operations. For example, a general policy and more specific guidelines exist to provide guidance to departments on environmentally responsible materiel management. In addition, the Federal Motor Vehicle Policy and Real Property Policy include sections which deal with environmental considerations.

Sustainable Development Strategies and Government Operations

A *Guide to Green Government* outlines the components of a sustainable development strategy as follows:

1. Departmental Profile
2. Issues Scan
3. Consultations
4. Goals, Objectives and Targets
5. Action Plan
6. Measurement, Analysis and Reporting of Performance

The *Guide* clearly describes these elements as they relate to operations, as well as to policy and programs. Below are a few additional notes and examples to consider which are particular to departmental operations.

Consultations

Consultations are a key tool in the government's commitment to open, responsible government. Current standards for environmental management systems also recognize the importance of discussing any proposed changes or new initiatives with the people and groups affected.

In the case of greening operations, this means chiefly the employees of your department. For example, before a new environmental purchasing policy is introduced, it's vital to consult with materiel management staff to ensure that the policy is clear and realistic. The staff who are most familiar with the function being examined are also a valuable source of ideas for "green" improvements. The participation of employees in the development of new procedures and policies will make staff more supportive during implementation and facilitate a smooth transition.

Major external consultations will likely not be necessary for most operational issues. However, in

a case where a proposed change to your operations may have a significant impact on external stakeholders, be sure consultations are integrated with the consultations process that may take place on your department's sustainable development strategy.

Goals, Objectives and Targets

Here is an example of how a specific operational issue -- waste management -- might be approached as part of your sustainable development strategy.

EXAMPLE

Waste Management

Goal (Common to both policy and operations)

Adopting a Pollution Prevention Approach

Objective

Preventing pollution and reducing energy consumption associated with solid waste management in our (the department's) daily operations and activities. This will be done by reducing the amount the department consumes, efficiently using and reusing what is consumed, and recycling what is generated from departmental operations and activities.

Long-term target

Aligning the reduction of waste of our operations with the CCME waste reduction target of a 50% reduction by the year 2000, based on 1988 waste generation figures

Short-term targets

X% reduction in office waste by 19xx
Y% reduction in construction and demolition waste by 19yy
Z% reduction in toxic substances in use and storage in facilities by 19zz

Action Plan

The action plan is where the concrete steps that your department will take to meet your targets, goals and objectives are described. An action plan to achieve the waste reduction targets set above might include the following steps:

This outline is intended only to provide a taste of the steps needed to progress from broad goals to tangible results. A practical action plan would provide much more detail about the *who*, *when*, and *how* of meeting each target. Note especially the importance of coordinating with activities related to other operational initiatives and with the overall sustainable development strategy. The introduction of an EMS will facilitate this coordination.

EXAMPLE

Action Plan Outline - Waste Management

- ◆ Assign responsibility for achieving waste management goals, objectives and targets
- ◆ Communicate waste management goals, objectives and targets to all staff (*Coordinate with communication of overall sustainable development goals*)
- ◆ Assign responsibility and resources for systematically addressing the best practices at one regional facility and one headquarters facility, as a pilot project.
- ◆ Consult with facility managers and materiel managers at each pilot location regarding current practices and opportunities for improvements
- ◆ Investigate partnership opportunities with co-tenants of facilities or nearby organizations
- ◆ Introduce 3-month pilot program based on consultations and information gathered from other programs and the experience of other departments (such as Environment Canada's "No Waste" program)
- ◆ Provide training to employees on their role in reducing waste and participating in pilot reduction and recycling programs
- ◆ Share results of pilot program with all employees and with outside organizations, including other departments (*Coordinate with promotion of other departmental sustainable development initiatives¹*)
- ◆ Evaluate pilot programs, including feedback from professional staff and participating employees
- ◆ Adjust programs based on lessons learned in pilot
- ◆ Phase in programs, including employee training, to all facilities within one year of pilot
- ◆ Review status of programs every six months and correct as necessary
- ◆ Annually measure progress in meeting targets
- ◆ Inform senior management and staff of the progress in meeting targets (*Coordinate with updates on other greening programs*).

1. Frequently communicating your department's progress in meeting the sustainable development objectives helps keep staff motivated to contribute. Promoting your department's progress to those outside can help other organizations learn from your example.

Questions and Answers - Greening Government Operations

Q. What's the relationship between a sustainable development strategy and an environmental management system?

A. A *sustainable development strategy* is the overall plan for a department to achieve sustainable development. It will be a legislative requirement once amendments to the Auditor General Act are promulgated. An EMS provides a framework for practices, procedures, and processes designed to help an organization manage its environmental agenda and document, evaluate and communicate its environmental performance. The two work hand in hand so that you are able to report your sustainable development goals and plans to Cabinet.

To put it another way, the sustainable development strategy provides guidance of where your organization should go, and the EMS one of the key tools to help you get there. The sustainable development strategy tabled in Parliament would specifically recognize that the department is implementing (or has implemented) an environmental management system as one means of achieving sustainable development. However, the sustainable development strategy will also address broader social and economic considerations.

EMS principles (which are basically a general management approach) were used as the basis for the development of *A Guide to Green Government*. EMS principles will therefore be consistent with the assessment of policies and programs conducted for your sustainable development strategy with the assistance of the *Guide*.

Q. What do we do with our existing Environmental Action Plan, prepared as part of the Federal Environmental Stewardship Initiative?

A. It remains government policy that all departments and agencies annually update their environmental action plans. However, once the amendments to the Auditor General Act are

passed, your first sustainable development strategy will encompass the "update" to your action plan. There will then be no need to update and make available a separate, updated, environmental stewardship action plan.

Note that in the (maximum) two years between the AG Act amendments and the tabling of sustainable development strategies, action plans must still be updated and made publicly available. Your sustainable development strategy will eventually take the place of your stewardship plan, just as it can integrate reporting requirements related to pollution prevention and other environmental matters.

Existing stewardship plans provide an excellent base from which to build the more comprehensive action plan that will be included as part of your department's EMS. Depending upon how detailed and thorough your current environmental action plan is, you may find that there is little additional work needed to address the best practices and the priority areas that will be identified in working through your EMS.

Q. Do I need to develop two separate documents, one for Operations and one for Policy?

A. No; a single, integrated document is intended for the sustainable development strategy. If the operational and policy functions of an organization are kept separate, there is a greater risk of overlooking certain important areas, duplicating information, and of not recognizing important links that will make the implementation of the strategy easier. However, if initially creating two discrete sections simplifies the preparation and helps speed action, your department may choose to begin this way.

Ideally, a well-organized sustainable development strategy should allow one to reference the strategies relating to a specific issue (such as climate change or biodiversity), as well as the departmental strategy on all issues relating to operations or policy. Again, an integrated approach is key.

APPENDIX A:

The Code of Environmental Stewardship for the Government of Canada

The Government of Canada fully supports the principle of sustainable development. To reflect this commitment in all aspects of its operations and activities, from facilities and real property management to procurement and waste management, the Government commits:

To integrate environmental concerns with operational, financial, safety, health, economic development and other relevant concerns in decision making.

To meet or exceed the letter and spirit of federal environmental laws and, where appropriate, to be compatible with provincial and international standards.

To improve the level of awareness throughout the public service of the environmental and health benefits and risks of operational decisions and to encourage and recognize employee actions.

To apply environmentally responsible management practices to hazardous substances used in operations, including biological products, specifically with regard to the acquisition, handling, storage, safety in use, transportation and disposal of such substances.

To ensure that environmental considerations are integrated into government purchasing policies and practices.

To seek cost-effective ways of reducing the input of raw materials, toxic substances, energy, water and other resources, and of reducing the generation of waste and noise associated with day-to-day operations.

To acquire, manage and dispose of lands in a manner that is environmentally sound including the protection of ecologically significant areas.

APPENDIX B:

Overview of Federal Environmental Legislation

Canadian Environmental Protection Act (CEPA):

Proclaimed in 1988, the Canadian Environmental Protection Act is the most extensive single piece of federal environmental legislation. The Act governs such areas as ocean dumping, the release, import and export of toxic substances, and international air pollution. Regulations and amendments under the Act include those governing the storage, mobile treatment & destruction, and export of PCB materials, as well as regulations relating to the use and consumption of ozone depleting substances.

Part IV of CEPA deals specifically with the federal house. It gives the Minister of the Environment authority to regulate waste handling and disposal practices, emissions and effluents from the activities of federal organizations. It also gives the Minister the authority to make regulations and guidelines to protect the environment that apply to federal lands, works and undertakings. (To date, one regulation -- on federal PCB destruction -- and two guidelines -- governing the use of glycol at federal airports and the management of underground storage tanks -- have been introduced under Part IV.)

CEPA recently underwent a Parliamentary Review. Among the recommendations made by the Standing Committee on the Environment and Sustainable Development were to focus the Act on sustainable development and to demonstrate federal leadership by applying exemplary pollution prevention and environmental management practices to its own operations. The committee also recommended that all federal organizations designate a senior official to be responsible for environmental management. These recommendations are consistent with the spirit and requirements of the Greening of Government Operations policy.

Canadian Environmental Assessment Act:

The CEAA requires that proponents of a federal project assess the potential environmental impact of the project early in the planning stages. "Federal projects" include federally financed projects, projects requiring disposal of federal lands, projects requiring specified federal regulatory approval, and those undertaken directly by the federal government.

Federal authorities cannot allow a project to proceed:

- ◆ until an assessment is completed;
- ◆ if environmental effects are likely to be significant.

The Act outlines the requirements of the environmental assessment process which is guided by the level of assessment required. The majority of projects can be satisfactorily assessed with a basic screening process (as contrasted with a public panel or mediation).

Transportation of Dangerous Goods Act:

This Act regulates the handling and provision of dangerous goods for transport according to strict safety measures, including requirements for specific documentation and emergency response plans. It also requires the reporting of releases of dangerous goods and implementation of emergency measures to minimize danger to the public in the case of a release.

Fisheries Act:

The Fisheries Act prohibits the deposit of harmful substances into waters where fish are found, and prohibits activities which damage fish habitat, unless authorized through regulation.

This Act is of particular relevance to departments operating in coastal regions.

Canada Wildlife Act:

The Wildlife Act was proclaimed in 1973. Its original purpose was to enable the federal government to carry out research and protect endangered species. It now serves to protect all wildlife and it establishes and protects specific National Wildlife Areas.

This Act is of particular relevance to departments operating with large land holdings.

Amendments to the Auditor General Act:

Several amendments are proposed to the Auditor General Act in response to a report by the Standing Committee on the Environment and Sustainable Development.

A new Commissioner of the Environment and Sustainable Development would monitor and report annually to Parliament on the federal government's performance in meeting their sustainable development goals and objectives. Ministers would be required to table in Parliament sustainable development strategies within two years of the amendments being made. The strategies must then be updated every three years. The Amendments are expected to be passed in the fall of 1995.

APPENDIX C:

Greening Government Best Practices

These "best practices" are intended as guidelines, and should be applied with existing policies, regulatory considerations, cost-effectiveness and technological feasibility considerations borne fully in mind. They are not intended to be employed by all departments and agencies on an across-the-board basis, but should take into account the unique situation of each organization, working on a "best efforts" basis. Over time, these best practices should continue to evolve and move progressively toward pollution prevention. They should be extended to leased buildings and facilities to the extent feasible as leases are renewed. In addition, they should take into account consensus best practices and codes of conduct developed in concert with the Provinces, and Provincial standards as they may affect the future disposal of Federal properties or other practices.

Procurement:

- ◇ evaluate potential purchases as per Treasury Board *Material Management Environmental Guidelines*;
- ◇ consistent with Canada's international trade obligations, purchase products and services that meet environmental specifications wherever these are available, and consider life-cycle costs. In some cases, this could involve a small price differential;
- ◇ provide green procurement training to officers with purchasing authority to improve decision-making, such as "Implementing Environmental Purchasing Policies" available from Environment Canada;
- ◇ adopt just-in-time delivery of all standard items on a competitive basis; and
- ◇ phase out all warehousing space for standard items as the just-in-time system comes into place.

Waste Management:

- ◇ realise CCME target of 50% reduction by the year 2000, using 1988 as the base year;
- ◇ identify waste reduction opportunities, taking advantage of existing auditing tools and procedures;
- ◇ develop and implement a waste reduction action plan, including an awareness program for employees;
- ◇ separate waste streams at source to facilitate reuse, recycling and proper disposal;
- ◇ compost organic waste where feasible;
- ◇ collect environmentally-harmful wastes centrally, and store and dispose of them safely; and
- ◇ implement a coordinated program to reduce the use of paper by switching to electronically-based communication.

Water Usage:

- ◇ evaluate whether the facility qualifies for savings finance, and, where appropriate, take advantage of the benefits afforded by such savings;
- ◇ identify water savings opportunities, taking advantage of existing audit tools and procedures;
- ◇ develop and implement a water conservation plan;
- ◇ optimize water efficiency; review bills, monitor flow meters and implement preventive maintenance programs;
- ◇ specify water-saving equipment and devices for future purchases, such as water-efficient fixtures including toilets, faucets, showerheads and appliances;
- ◇ retrofit toilets, urinals, showers, faucets, and drinking fountains to reduce water use; and
- ◇ use greywater for landscaping and irrigation purposes where feasible.

Energy Use in Federal Buildings:

- ◆ review energy use in owned and leased facilities;
- ◆ develop and implement energy management plans, including preventative maintenance (guidelines are available under the Natural Resources Canada Federal Buildings Initiative);
- ◆ assess the energy efficiency knowledge requirements of building operators and managers and provide the required training;
- ◆ implement all economically attractive energy retrofits;
- ◆ take advantage of the Federal Buildings Initiative which provides products and services in support of the above activities; and
- ◆ facilitate building occupant energy conservation, e.g., with bike racks, car-pool parking privileges and car-pooling information.

Motor Vehicle Fleets:

- ◆ manage fleet vehicles in accordance with economic and environmental objectives of the TB Motor Vehicle Policy being developed in partnership with Natural Resources Canada and Environment Canada;
- ◆ maximize fuel efficiency and the use of alternative fuels to conserve energy and reduce emissions;
- ◆ wherever possible, use low-sulphur diesel and ethanol-gasoline blends, meeting environmental specifications;
- ◆ purchase original equipment manufactured alternative fuel vehicles or retrofit vehicles where life cycle costs are comparable to gasoline or diesel-fuelled vehicles;
- ◆ purchase vehicles of appropriate engine size to meet operational requirements;
- ◆ reduce the number of vehicles for departmental use;
- ◆ perform emission testing and regular maintenance on vehicles to ensure maximum operating efficiency;

- ◆ recycle all used vehicle liquids (i.e., oil, anti-freeze, CFCs); and
- ◆ conduct driver education for enhanced energy savings and safety.

Land Use Management:

- ◆ identify, classify and assess sites of concern on departmental lands using the CCME National Classification System or a similar tool;
- ◆ manage risks to human health and the environment, through risk assessment and techniques for containment, mitigation, and remediation;
- ◆ base site remediation objectives should on the existing CCME Environmental Quality Criteria as appropriate or the CCME Risk Assessment Framework for Ecological and Human Health Effects, for risk-based remediation plans;
- ◆ review leasehold agreements between Federal custodian and private interests to ensure that they contain specific provisions designed to ensure lessees make appropriate arrangements to prevent contamination; and
- ◆ in acquisition, use and disposal of real property, adhere to the Treasury Board Policy on Real Property Management.

Human Resource Management:

- ◆ consistent with Treasury Board's personnel policy, adopt human resource management practices that foster innovative working arrangements, such as job sharing, and working from home which supports environmental objectives; and
- ◆ infuse environmental awareness into all training programs, particularly orientation training.

APPENDIX D:

General Principles for Environmental Management Systems

It is recommended that environmental management systems be developed according to the following principles, which are further elaborated in the Canadian Standards Association document CSA Z750-94:

- ◇ Organizations need to determine how they can
 - (a) provide economic benefit to the organization and society while minimizing the adverse environmental impact of their activities;
 - (b) take into account stakeholders' expectations regarding the environment;
 - (c) anticipate and comply with applicable laws and regulations regarding the environment; and
 - (d) continually improve their techniques to minimize the adverse impact of their activities on the environment.
- ◇ Environmental management is an integral part of an organization's overall management responsibility. The structure, responsibilities, practices, procedures, processes and resources for implementing the environmental policy, objectives and targets should be integrated with existing efforts in other areas (e.g., occupational health and safety, and marketing).
- ◇ The design of an EMS is an ongoing, interactive planning process that consists of defining, documenting and continuously improving the required capabilities, namely: resources, training, information systems, operational processes and procedures, documentation, measurement and monitoring criteria.

- ◇ The EMS design should emphasize a systematic approach for
 - (a) identifying the significant environmental effects arising from the organization's past, existing or proposed activities, products or services;
 - (b) identifying the environmental effects arising from incidents, accidents and potential emergency situations;
 - (c) identifying the applicable laws and regulations and the relevant Industry Standards;
 - (d) reflecting priorities that have been identified through the environmental objectives and targets;
 - (e) facilitating corrective action, process improvement, systems auditing and review activities to ensure both that the policy is complied with and that it remains relevant;
 - (f) establishing and updating operational processes and procedures.

In addition, federal organizations should consider these principles, provided in CSA Z754-94:

- ◇ A pollution prevention program should be integrated into all areas of an organization's EMS and not considered as a separate system. The overall design of an EMS should emphasize prevention over control and remediation.

APPENDIX E:

Roles Played in Greening Government Operations*

Investing Wisely to Green Operations

CONSUMER:

Invest in best practices to maximize environmental and financial returns as a consumer of products and services

- ◆ Investing in sound land-use management
- ◆ Promoting environmentally and financially responsible procurement
- ◆ Purchasing alternative transportation fuels and conserving energy in the fleet
- ◆ Investing in energy and water efficiency in buildings
- ◆ Obtaining savings from solid waste reduction and earnings from recycling
- ◆ Investing in and promoting employee action to conserve water, save energy, manage waste, and buy green
- ◆ Adopting environmentally responsible human resource management policies

CITIZEN:

Assess and manage risks from the past and put in place management systems to avoid future risks

- ◆ Complying with Federal laws
- ◆ Implementing pollution prevention practices
- ◆ Taking into account Provincial environmental standards, as appropriate
- ◆ Assessing environmental impact of projects and programs
- ◆ Monitoring environmental performance

* As the title indicates, all roles, including that of facilitator and regulator/policy-maker, are intended to be considered in relation to internal, operational policies and programs.

Supporting Sound Environmental Decision-Making via Government Operations

FACILITATOR:

Leverage Federal resources to promote continuous learning and innovation in partnership with the private sector

- ◆ Promoting sound pollution prevention technologies
- ◆ Furthering energy efficiency and the use of alternative energy
- ◆ Incorporate specifications for products which are environmentally friendly, consistent with international trade obligations
- ◆ Using environmental criteria/norms for decision-making to support continuous learning
- ◆ Supporting training programs and environmental literacy
- ◆ Conducting environmental research to solve problems
- ◆ Re-enforcing international and national guidelines for environmental management systems: ISO/CSA/CICA, etc.

REGULATOR, POLICY-MAKER:

Use government operations as a laboratory to test methods of achieving environmental objectives and playing more effectively the role of policy-maker and regulator

- ◆ Contributing to Climate Change National Action Plan and other issue-specific strategies
- ◆ Contributing to implementation of agreements and covenants (international and domestic, including harmonization)
- ◆ Furthering national standards; Environmental Quality requirements
- ◆ Advancing energy performance and labelling requirements
- ◆ Testing and enhancing health and safety requirements
- ◆ Testing new approaches to conformity with CEPA/CEAA
- ◆ Contributing to emergency preparedness/management

APPENDIX F:

Resources and References

Information Available to Federal Employees

The Code of Environmental Stewardship for the Government of Canada

"Greening Government"

regular OFES bulletin of stewardship information

Stewardship Success Stories

series of short articles highlighting federal "green" successes

Federal Environmental Stewardship Annual Report 1992 - 1993

Greening Government:

Update on Federal Departments

a report on environmental initiatives undertaken by all government departments as of June 1995. (available on diskette only)

Greening National Government Operations:

Setting the Agenda for Cooperation

background information about efforts of various G-7 countries to improve the environmental performance of their own governmental operations

"Green" Checklists

Green Office Checklist

Green Conference Checklist

Green Procurement Checklist

Green Publications Checklist

Green Fleet Checklist

Green Facilities Checklist

Green Furniture Checklist

"Green Driving Tips" Card

for federal fleet vehicles

Drive Green Handbook

(instructor's notes and slides available)

a guide for federal fleet drivers

Environmental Procurement Computer Based Training Diskette

comprehensive computer based training for federal employees with purchasing authority

Powering Down the Office - Energy-efficient technology makes cents

"Print Green" Poster

promoting environmentally responsible publications

Printing Green - Choosing the Right Paper

brief guide to paper types & processes

Reduce Reuse Recycle Reward

a guide to assist federal employees in recognizing and rewarding environmental stewardship endeavours

Greening Government on Diskette

a computer program containing the Greening Government Best Practices and the Federal Code of Environmental Stewardship, and seven Green Checklists

The Environmentally Responsible Construction & Renovation Handbook

a guide to assist facility managers in incorporating environmental concerns in construction and renovation projects (available at minimal cost)

Environmental Specifications for Office Furniture

a guide to assist federal employees in choosing the most environmentally responsible furniture.

there are two versions of this document, the Background Document, and the shorter document which contains the recommendations only

Implementing Environmental Purchasing Policies (Instructor's notes, Participants Notes)

notes from a course developed by Transport Canada

EMS Self-Assessment Guide

EMS questionnaire and action plan based on ISO 14004.

"Going Green" Video

upbeat "green office" awareness video

"Environmental Action" Video

sampling of environmental opportunities for federal materiel managers

All above documents are available in French or English from:

Office of Federal Environmental Stewardship (OFES)

18th Floor, 351 St. Joseph Boulevard
Hull, Quebec K1A 0H3
fax 819-953-4130

Additional Resources and References

Canada's National Action Program on Climate Change 1995,
Environment Canada, 1995.

The Canadian Biodiversity Strategy -- Canada's Response to the convention on Biological Diversity,
Environment Canada, 1994.

A guide to the implementation of the biodiversity convention in Canada.

A Guide to Green Government,
Environment Canada, 1995.

It's About Our Health! Towards Pollution Prevention, 1995. Recommendations of the Standing Committee on the Environment and Sustainable Development relating to the review of the Canadian Environmental Protection Act.

Toxic Substances Management Policy,
Environment Canada, 1995.

Toxic Substances Management Policy -- Persistence and Bioaccumulation Criteria,
Environment Canada, 1995.
Provides details about the scientific criteria applied under the policy.

The above documents are available from Environment Canada at 1-800-668-6767. Many are also available electronically on Environment Canada's "Green Lane",
URL: <http://www.doe.ca>

ISO/DIS 14004 -- Environmental management systems -- General guidelines on principles, systems and supporting techniques, International Organization for Standardization, 1995.

Available from the sales division of the Standards Council of Canada, 613-238-3222 (1200-45 O'Connor, Ottawa, Ontario K1P 6N7). Cost: \$99, plus applicable taxes, shipping and handling.

CSA Z-750 -- A Voluntary Environmental Management System, Canadian Standards Association, 1994. Cost: \$50, plus applicable taxes, shipping and handling.

CSA Z-754 -- Guideline for Pollution Prevention, Canadian Standards Association, 1994. Available from the Canadian Standards Association, 416-747-4044.

Plus 1117 -- Competing Leaner, Keener and Greener - A Small Business Guide to ISO 14000, Canadian Standards Association, 1995.

Canadian Environmental Assessment Act -- Responsible Authority's Guide, 1995. Includes a Responsible Authority's Guide, tutorial software, and a copy of the Act and its four main regulations. Order forms available from 819-994-2578. Cost: \$56 (+GST).

Environmental Management Systems -- A Principle-based Approach
Chapter 11 - Report of the Auditor General of Canada to the House of Commons, October 1995. Available electronically, URL: <http://www.gc.ca>

ENVIRONMENT CANADA LIBRARY
YELLOWKNIFE



4005938



Printed using
vegetable-based inks on
100% recycled paper,
all post consumer fibre