

**PRELIMINARY FINAL VERSION**

**ENVIRONMENTAL MANAGEMENT SYSTEM  
MANUAL  
Ste. Anne's Hospital**

**SUBMITTED TO**

**TECHNICAL SERVICES  
STE. ANNE'S HOSPITAL**

**BY**

**PWGSC-ENVIRONMENT  
QUEBEC REGION**

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## Summary

An Environmental Management System (EMS) is a management tool that provides a framework which enables an organisation to manage its environmental goals and to document, communicate and evaluate its environmental performance. An EMS provides a means of identifying, reducing, and managing environmental risks. At the very least, it helps to ensure that an organization's operations are consistent with environmental protection legislation.

In order to successfully implement an EMS, senior management must commit early in the process to making improvements in the organization's ability to manage its activities and services in an environmentally sound manner. The organization's leadership must also make a commitment to monitor operations.

Ste. Anne's Hospital has environmental obligations which stem from environmental legislation, as well as the guidelines issued by Headquarters in connection with the Sustainable Development Strategy, and its own environmental policy. Before an organization can implement management systems, procedures and protocols, it must attend to the key elements that enable it to meet its obligations, namely communication and human resources.

From the standpoint of communication, Hospital employees must be given opportunities to share information on environmental issues of concern to them, even if they happen to work in different departments.

In order to meet this objective, an employee must be appointed to serve as the focal point of communications, in other words as the contact person to whom others can turn to deal with environmental matters. Given that there are many complex environmental aspects to oversee, the coordination and management of the various programs and procedures should be a full-time position.

This environmental management manual is intended as a practical tool to promote the integration of effective environmental practices into the daily management of Ste. Anne's Hospital. It provides a detailed description of the current situation and identifies steps that will need to be taken on a range of environmental issues to ensure that the Hospital is in compliance with environmental legislation, is improving its environmental performance and is performing the various monitoring activities required by Headquarters. The responsible authorities for each environmental topic, aspect and target are clearly identified and the procedure for conducting a management review is explained in detail.

This document contains many objectives and targets. All targets cannot be achieved in the same time. Target given priority must be done by the environmental committee, with the senior management. **The dates mentioned in this document are for references only, in the case a target is chosen in the first implementation step.**

The manual is accompanied by a second document which describes the information which must be included in the environmental records that will constitute the archival repository of all EMS data. A responsible authority is also identified for each record.

All employees must be given the opportunities to comment on this manual and other documents related and an implementation committee must be created, in order to represent all environmental needs of the Hospital.

# Table of contents

<b>Introduction.....</b>	<b>iv</b>
<b>Chapter 1.....</b>	<b>1</b>
<b>Chapter 2.....</b>	<b>5</b>
<b>Procurement .....</b>	<b>7</b>
<b>Waste management .....</b>	<b>13</b>
<b>Water use .....</b>	<b>37</b>
<b>Energy use .....</b>	<b>46</b>
<b>Vehicle fleet.....</b>	<b>60</b>
<b>Land use management .....</b>	<b>65</b>
<b>Human resource management .....</b>	<b>95</b>
<b>Compliance .....</b>	<b>105</b>
<b>Environmental emergency response plan .....</b>	<b>106</b>
<b>Chapter 3.....</b>	<b>110</b>
<b>Chapter 4.....</b>	<b>125</b>

## Acronyms

CCME	Canadian Council of Ministers of the Environment
CUM	Communauté urbaine de Montréal
CEAA	Canadian Environmental Assessment Act
ODS	Ozone-depleting substance
SDS	Sustainable Development Strategy
EMS	Environmental Management System
EPS	Environment Protection Service
PWGSC	Public Works and Government Services Canada

## Introduction

In its 1996 Sustainable Development Strategy (SDS), the Department of Veterans Affairs stated that:

“Due to its distinctive operations, Ste. Anne’s will not be included in the overall departmental EMS, but rather, develop an independent system which better meets the unique needs of the hospital; this system will then feed data directly into the departmental system. (...) Environmental performance reporting linkages to the EMS and the resulting annual environmental report will be established.”

Ste. Anne’s Hospital is administered by the Department of Veterans Affairs. Under the *Auditor General Act*, all government departments are required to develop a sustainable development strategy (SDS). The goals and targets of the Veterans Affairs SDS with respect to the Hospital have been incorporated into the Hospital’s EMS and are identified accordingly in this Manual. An important goal is to design the EMS in a manner which makes it possible to provide a timely and effective response to departmental requirements.

The manual is divided into four chapters:

- **Chapter 1 Environmental policy**

Describes the Hospital’s environmental policy and an action plan to ensure that this policy will remain current and relevant.

- **Chapter 2 Environmental aspects**

Details each of the various environmental aspects contained in the policy. Each aspect comprises:

- A. an environmental issue
- B. acts and regulations in force, based on the *Guide de conformité environnementale à l’intention des ministères fédéraux au Québec* [Environmental compliance guidelines for federal departments in Quebec]
- C. responsible authorities (topics, aspects and targets)
- D. objectives, targets and action plans for improving environmental performance.

The EMS will also address two other issues: environmental assessment under the *Canadian Environmental Assessment Act* (CEAA) and the development of an environmental emergency response plan.

The source for each target is identified as being the VA Sustainable Development Strategy (Headquarters) or the policy of Ste. Anne's Hospital.

**- Chapter 3 Delegation of authority**

Identifies responsible authorities for each topic, aspect and target, as well as their telephone numbers.

**- Chapter 4 Management review**

Explains the procedure for conducting an annual management review, as well as more frequent forms of monitoring. A calendar of completion dates for the various targets is also provided.

This document contains many objectives and targets. All targets cannot be achieved in the same time. Target given priority must be done by the environmental committee, with the senior management. **The dates mentioned in this document are for references only, in the case a target is chosen in the first implementation step.**

All employees must be given the opportunities to comment on this manual and other documents related and an implementation committee must be created, in order to represent all environmental needs of the Hospital.

# Chapter 1

## Environmental policy

The development of an environmental policy is a key component in the success of an EMS. An environmental policy is the foundation which makes it possible to sustain and improve an organization's environmental performance.

An environmental policy reflects senior management's commitment to promote compliance with environmental legislation and to make on-going improvements; it also serves as a basis to establish institutional goals and targets. The policy must be clear, so that it can be readily understood by all stakeholders within the organization, and must be reviewed periodically to ensure that it reflects new developments. Finally, it must accurately reflect the role and activities of the organization.

**Responsible authority:** Environmental coordinator

**Year:** 2000

**Current status**

In August 1997, the Hospital introduced its environmental policy entitled “Environmental Stewardship” (policy DSA-95). In it, the Hospital committed itself to implementing best practices in seven areas:

- Procurement
- Waste management
- Water use
- Energy use
- Vehicle fleet
- Land use management
- Human resource management

These are also the key sectors identified in the Guide to Green Government, published in 1995.



**GOAL**

Ensure that sustainable development is an integral component of the management system of Ste. Anne's Hospital.

**OBJECTIVE (AND TARGET) (Ste. Anne's Hospital)**

Ensure that the Hospital's environmental policy is kept up-to-date.

**ACTION PLAN**

1. Perform an annual review of the environmental policy as part of the annual EMS management review. Incorporate data relating to improvements made with respect to the various environmental aspects, the requirements of the Department of Veterans Affairs, and the overall condition of the Hospital.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** every year

**RESPONSIBLE AUTHORITY**

Implementation of the new policy: Senior management and environmental committee

**PERFORMANCE MEASURES**

An up-to-date environmental policy



## Chapter 2

### Environmental aspects

In its environmental policy of 1997, the Hospital committed itself to implementing best practices in seven key sectors identified in the Guide to Green Government (1995). These sectors are divided into environmental aspects, each of which is addressed in the EMS. Two other environmental aspects relating to compliance have been included: environmental assessment and the development of an environmental emergency response plan.

An environmental audit was conducted at the Hospital in the fall of 2000, making it possible to review the current situation as it relates to each environmental aspect. The recommendations made in the auditors' report have been integrated into the EMS targets and objectives.

As part of its SDS, the Department of Veterans Affairs has published action plans for several environmental aspects. If applicable, these action plans will be integrated into the EMS of Ste. Anne's Hospital.

**Table 2.1 Environmental topics and aspects included in the Hospital's EMS**

Topics	Environmental aspects
PROCUREMENT	Procurement
WASTE MANAGEMENT	Solid waste
	Construction waste
	Hazardous waste
	PCBs
	Biomedical waste
WATER USE	Drinking water
	Wastewater
ENERGY USE	Energy consumption
	Halocarbons
	Asbestos
VEHICLE FLEET	Motor vehicle fleet
LAND USE MANAGEMENT	Contaminated sites
	Storage tank systems
	Pesticides
	De-icing salt
	Hazardous materials
HUMAN RESOURCES MANAGEMENT	Training
	Awareness
ENVIRONMENTAL ASSESSMENT	CEAA
ENVIRONMENTAL EMERGENCY RESPONSE PLAN	Environmental emergency response plan



**Topic:** Procurement

**Issue**

The objectives of green procurement focus on the reduction of resource consumption, waste, greenhouse gas emissions, as well as environmental, health and financial risks and costs.

**Topic:** Procurement

Compliance

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

**Federal government**

⇒ *Treasury Board Real Property Environment Policy* (Treasury Board, 1998)

**Topic:** Procurement

**Responsible authority:** Purchaser, material operations

**Year:** 2000

**Current status**

The person responsible for procurement and material operations is Bernard Voyer; the purchasers are Eugène Thauvette and Marjolaine Mallette. All purchase transactions for the Hospital's various departments are made through them. Green procurement guidelines are in place, but these guidelines represent a commitment rather than a practical tool.

The Department of Veterans Affairs has published an action plan on procurement as part of its SDS. This action plan will be integrated into the Hospital's EMS.

The action plan deals with the development and promulgation of a green procurement policy by Headquarters, as well as the delivery of green procurement training for procurement staff. The action plan also mentions making use of the procurement component of the AMMIS system. Since the Hospital already uses AMMIS for procurement purposes, this step has been completed.

**Topic: Procurement**

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Promote and encourage green procurement practices.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Follow up with Headquarters (HQ) on the status of the background document on green procurement, which must be completed by October 2001.

**ACTION PLAN**

1. Identify the authority responsible for the manual at HQ.
2. Communicate on a monthly basis with the person responsible for developing the manual.
3. Keep a record of these exchanges.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** October 2001

**RESPONSIBLE AUTHORITY**

Manual writing: Headquarters

Communication with HQ: Environmental coordinator

**PERFORMANCE MEASURES**

An up-to-date record of exchanges with HQ



**Topic: Procurement**

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Promote and encourage green procurement practices.

**TARGET NO. 2 (Headquarters)**

Provide green procurement training to procurement staff by March 2004.

**ACTION PLAN**

1. Meet target no. 1.
2. Train procurement staff.
3. Communicate the new structure to employees.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** March 2004

**RESPONSIBLE AUTHORITY** Human resources

**PERFORMANCE MEASURES:**

Percentage of employees trained on a yearly basis  
List of communication activities

**Topic:** Procurement

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Promote and encourage green procurement practices.

**TARGET NO. 3 (Headquarters)**

Increase green procurement by 5% per year between March 31, 2001 and March 2004.

**ACTION PLAN**

1. Meet targets 1 and 2.
2. Evaluate traditional purchases which could be replaced.
3. Replace these traditional purchases with more environmentally friendly products.

**RESOURCES (\$)** Cost increase of approximately 15% for green products. This additional expenditure will diminish as the demand for such products increases.

**SCHEDULE TARGET** March 2004

**RESPONSIBLE AUTHORITY** Purchaser, material operations

**PERFORMANCE MEASURES:**

Percentage of green purchases per year, in dollar terms.

**Topic:** Waste management

**Aspect:** Solid waste

### Issue

This section deals with both institutional solid waste and construction waste.

Solid waste management by the federal government encompasses waste production, recycling, conversion, re-use and elimination. Various approaches to waste management can be employed, depending on the nature of the waste and the means available. There are no federal regulations which deal specifically with solid waste management. However, some federal regulations do contain provisions which apply to specific types of waste which are associated with solid waste.

In the context of sustainable development, in particular the *Auditor General Act*, federal agencies are encouraged to reduce solid waste. Managers should therefore seek to apply the greening program in their respective departments.

At the provincial level, solid waste management is governed by the *Regulation respecting solid waste*. In the absence of specific federal regulations on this subject, the federal government should seek to achieve compliance with the relevant provincial provisions.

**Topic:** Waste management

**Aspect:** Solid waste

## **Compliance**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### **Federal government**

- ⇒ *Canadian Environmental Protection Act, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)*
- ⇒ *Fisheries Act, R.S.C. (1985), c. F-14*
- ⇒ *Auditor General Act, S.C. (1995), c. 43*
- ⇒ *National Packaging Protocol*

### **Provincial government**

- ⇒ *Environment Quality Act, L.R.Q., c. Q-2*
  - *Regulation respecting used tire storage, (1992) G.O. II, 681*
  - *Regulation respecting solid waste, R.R.Q., 1981, c. Q-2, r.3.2*

### **References**

Canadian Code of Preferred Packaging Practices (CCME, 1991)

Guidelines for Compost Quality (CCME, 1996)

Packaging Audits and Packaging Reduction Workplans: Guidelines to Help Industry Meet the Goals of the National Packaging Protocol (CCME, 1992)

Procédure d'évaluation des caractéristiques des déchets solides et des boues pompables (MENVIQ, 1985).

Waste Audit Users Manual: A Comprehensive Guide to the Waste Audit Process (CCME, 1996).

**Topic:** Waste management

**Aspect:** Solid waste

**Responsible authority - topic:** Sanitation supervisor

**Responsible authority - aspect:** Sanitation supervisor

**Year:** 2000

### **Current status**

Institutional waste is sent to landfill sites. The Hospital is charged for waste collection and tonnage. In 1999, approximately 600 tonnes of waste were sent to the sanitary landfill site. Prior to landfilling, the waste is sent to be compacted. The invoices for waste collection and disposal are submitted to the administrative assistant who compiles them manually. The implementation of a computerized system will facilitate data analysis and provide a better overall picture of these operations.

In 1994, PWGSC published a waste recovery and recycling project (**Waste recovery and recycling project, PWGSC 1994**). This project proposed a number of solutions, including waste reduction at source, and programs to recover paper, cardboard, glass, metal, plastics, disposal diapers and organic waste.

The waste recovery program implemented at the Hospital is for paper and cardboard. Between 1994 and 2000, 127 metric tonnes of cardboard were recycled. An agreement was negotiated with a local firm which provides a free six-cubic-yard container and empties it two or three times a week free of charge. Between 1996 and 2000, 148 tonnes of waste were recovered.

In order to improve environmental performance, a more comprehensive waste recovery program will need to be implemented. In addition, waste reduction at source will enable Hospital management to save time and financial resources, both in terms of procurement and waste burial.

The Department of Veterans Affairs has published an action plan 2000 on non-hazardous solid waste, as part of its SDS. This action plan will be integrated into the Hospital's EMS.

The action plan proposes to reduce the amount of waste sent to landfill sites by 5.6% per year until March 2004. The changes with respect to printers and photocopiers proposed by the Department should make it possible to meet this target. A waste recovery program encompassing other forms of waste, such as diapers, glass and plastics, would also aid in the achievement of the established target.

**Topic:** Waste management

**Aspect:** Solid waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the amount of waste sent to landfill sites.

**TARGET NO. 1 (Headquarters)**

Meet the targets set out in the VA action plan 2000 with respect to photocopiers and printers.

**ACTION PLAN**

1. Evaluate photocopiers and printers and make the necessary changes.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** March 2002

**RESPONSIBLE AUTHORITY** Supervisor , medical storeroom and stationary supplies

**PERFORMANCE MEASURES**

Percentage of all printers and photocopiers where "doubled-sided" is the default setting whenever possible

Quantity of paper purchased before and after this measure is introduced

**Topic:** Waste management

**Aspect:** Solid waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Develop a non-hazardous waste management system.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Develop a data collection system.

**ACTION PLAN**

1. Collect data.
2. Implement computerized system.
3. Enter data as it is generated.

**RESOURCES (\$)** part of EMS implementation.

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** Data entry: Administrative assistant, sanitation  
System management: Sanitation supervisor

**PERFORMANCE MEASURES**

Percentage of computerized system which has been implemented

**Topic:** Waste management

**Aspect:** Solid waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the amount of waste sent to landfill sites.

**TARGET NO. 3 (Headquarters)**

Reduce the amount of waste sent to landfill sites by 5.6% per year between now and March 2004.

**ACTION PLAN**

1. Meet targets 1 and 2.
2. Review practices which produce the most waste.
3. Prepare a list of potential waste collectors and attendant costs/savings.
4. Implement and promote a waste recovery program to handle the kinds of waste being produced.
5. Characterize non-hazardous solid waste.

**RESOURCES (\$)**

**Implementation:** \$15 per person

**Characterization:** \$20,000

**SCHEDULE TARGET** March 2004

**RESPONSIBLE AUTHORITY** Data entry: Administrative assistant, sanitation  
Recovery program: Sanitation supervisor

**PERFORMANCE MEASURES**

Amount and types of waste recovered each year  
Amount of waste landfilled



**Topic:** Waste management

**Aspect:** Construction waste

**Responsible authority - topic:** Sanitation supervisor

**Responsible authority - aspect:** Sanitation supervisor

**Year:** 2000

**Current status**

There is a container for Hospital maintenance/construction waste and another container for pieces of metal. The maintenance staff is responsible for filling the containers and notifying Luc Léger of the sanitation department when the containers are full.

The container for metal is emptied free of charge two or three times a year, but no statement is submitted. In the case of the waste container, the Hospital is charged for each collection. The biannual invoice serves as a statement of the services provided. Necessary improvements include the implementation of a data collection system. This would involve requiring contractors to submit a statement each time they collect waste.

For large construction projects, contractors provide their own containers. Currently, construction specifications do not include provisions concerning the recovery of construction waste. The addition of such provisions to construction specifications would provide a means of reducing the amount of waste sent to landfill sites.

**Topic:** Waste management

**Aspect:** Construction waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Implement a construction waste management system (maintenance).

**TARGET NO. 1 (Ste. Anne's Hospital)**

Establish a system to collect relevant data.

**ACTION PLAN**

1. Group data.
2. Implement computerized system.
3. Enter data as it is generated.

**RESOURCES (\$)** part of EMS implementation

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY**

Data entry: Administrative assistant, sanitation

System management: Sanitation supervisor

**PERFORMANCE MEASURES**

Percentage of computerized system implemented

**Topic:** Waste management

**Aspect:** Construction waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the amount of waste which is sent to landfill sites.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Implement a waste recovery program for large construction projects.

**ACTION PLAN**

1. Integrate provisions for the recovery of materials and waste into construction specifications.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** March 2002

**RESPONSIBLE AUTHORITY**

Inclusion of provisions: Civil design technologist

Follow-up on application of provisions: Project officers

**PERFORMANCE MEASURES**

Percentage of work toward inclusion of provisions which has been completed

Number of projects where the waste recovery provisions are being applied

**Topic:** Waste management

**Aspect:** Hazardous waste

### **Issue**

The only federal legislation which addresses hazardous waste deals with the transportation of such waste. In the absence of federal legislation dealing specifically with hazardous waste and the management of containers used in the disposal of hazardous waste and contaminated materials, the federal government should seek to achieve compliance with the relevant provincial provisions.

The concept of “hazardous waste” does not appear as such in provincial regulations, where the term “residual hazardous materials” is more commonly used. The storage of hazardous waste in federal facilities should comply with the provisions in place with respect to hazardous materials. As for the disposal of hazardous waste, the federal government should follow the CCME’s recommendations or provincial standards, whichever are most stringent.

Federal government systems for the storage of used oil off federal lands should be compatible with provincially-regulated environmental standards. The storage of used oil on federal lands is governed by federal legislation respecting storage tank systems.

Fluorescent lights and high-density mercury lamps generally contain enough mercury to constitute hazardous waste in the used state.

Mixing or diluting residual hazardous materials with other materials, whether hazardous or not, is only permitted if the materials resulting from such mixture or dilution are treated as residual hazardous materials.

**Topic:** Waste management

**Aspect:** Hazardous waste

## **Compliance**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### **Federal government**

- ⇒ *Canadian Environmental Protection Act*, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)
- ⇒ *Transportation of Dangerous Goods Act 1992*, S.C. 1992, c. 34
  - *Transportation of Dangerous Goods Regulations*, (1985) 119 C.G. II, 393
- ⇒ *Hazardous Products Act*, R.S.C. (1985), c. H-3
  - *Controlled Products Regulations*, (1988) 122 C.G. II, 551
- ⇒ *Auditor General Act*, S.C. (1995), c. 43
- ⇒ *Fisheries Act*
- ⇒ *National Fire Code of Canada*
- ⇒ *National Building Code of Canada*

### **Provincial government**

- ⇒ *Highway Safety Code*, L.R.Q., c. C-24.2
  - *Transportation of dangerous substances regulation*, (1988) G. O. II, 2746
- ⇒ *Environment Quality Act*, L.R.Q., c. Q-2
  - *Regulations respecting hazardous materials*, (1997) G. O. II, 6681

### **References**

Code of Practice for Used Oil Management in Canada (CCME, 1989).

Guide for the Management of Hazardous Materials and Waste at Federal Facilities in Quebec (Environment Canada, 1994).

National Guidelines for the Landfilling of Hazardous Waste (CCME, 1991).

National Guidelines on Physical-Chemical-Biological Treatment of Hazardous Waste (CCME, 1989).

Obstacles to the Recycling of Hazardous Waste (CCME, 1988).

Transport of Hazardous Waste: Question and Answer Manual (Environment Canada, 1989 -SPE, En40-374/1989E).

Used Oil Management in Canada: Existing Practices and Alternatives (CCME, 1989).

**Topic:** Waste management

**Aspect:** Hazardous waste

**Responsible authority - topic:** Sanitation supervisor

**Responsible authority - aspect:** Sanitation supervisor

**Year:** 2000

**Current status**

The sanitation department is responsible for some forms of hazardous waste. This waste is stored at a specific location, documented in a register, and disposed of by a specialized contractor who is on call. The register is kept by hand and updating it requires several hours of work. Establishing a computerized register will reduce the time needed to perform this task. In addition, every effort should be made to ensure that the storage location is reserved for hazardous waste only and is not used as a general storage area.

Used oil is the responsibility of the technical services directorate. This oil is disposed of on an ongoing basis, in accordance with the legislation in force. The private contractor is responsible for the storage and management of used oil.

**Topic:** Waste management

**Aspect:** Hazardous waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the environmental risks associated with hazardous waste.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Collect used oil at a single location.

**ACTION PLAN**

1. Draw up a list of all the locations where used oil is kept.
2. Identify those responsible for these various locations and put them in touch with the person responsible for used oil.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** Mechanical technician

**PERFORMANCE MEASURES**

Used oil stored at a single location



**Topic:** Waste management

**Aspect:** Hazardous waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the environmental risks associated with hazardous waste.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Establish a computerized inventory of incoming and outgoing hazardous waste and ensure that it is kept up-to-date.

**ACTION PLAN**

1. Collect data.
2. Implement computerized system.
3. Enter data as it is generated.

**RESOURCES (\$)** part of EMS implementation

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** Sanitation supervisor

**PERFORMANCE MEASURES**

Percentage of computerized system which has been implemented.

**Topic:** Waste management

**Aspect:** Hazardous waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the environmental risks associated with hazardous waste.

**TARGET NO. 3 (Ste. Anne's Hospital)**

Reduce to a minimum the amount of hazardous waste which is stored on site.

**ACTION PLAN**

1. Establish a regular calendar for waste collection and sign a contract with a specialized contractor.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** March 2001

**RESPONSIBLE AUTHORITY** Sanitation supervisor

**PERFORMANCE MEASURES**

Annual participation in hazardous waste collection campaign.

**Topic:** Waste management

**Aspect:** PCBs

**Issue**

Waste which contains or has been contaminated by PCBs is given special consideration in federal and provincial hazardous waste regulations.

CEPA regulations establish the requirements (prohibitions, acceptable quantities and concentrations) which must be met in the use, export, storage, and disposal of PCBs. Generally speaking, the regulations target products and materials which contain concentrations of PCBs in excess of 50 ppm.

Federal PCB storage sites should also be in compliance with the environmental provisions contained in Quebec's *Regulation respecting hazardous materials*.

**Topic:** Waste management

**Aspect:** PCBs

## **Compliance**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### **Federal government**

⇒ *Canadian Environmental Protection Act, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)*

- *Chlorobiphenyl Regulations, (1991) 125 C.G. II, 1030*
- *Storage of PCB Materials Regulations, (1992) 126 C.G. II, 3566*
- *Federal Mobile PCB Treatment and Destruction Regulations, (1990) 124 C.G. II, 20*

### **Provincial government**

⇒ *Environment Quality Act, L.R.Q., c. Q-2*

- *Regulation respecting hazardous materials, (1997) G.O. II, 6681*

### **References**

Decontamination: Standards and Protocols (CCME, 1995).

Evaluation of Mobile and Stationary Facilities for the Destruction of PCBs (EPS, 1989).

Guidelines for the Management of Wastes Containing Polychlorinated Biphenyls (PCBs) (EPS, 1987).

Identification of Lamp Ballasts Containing PCBs (EPS, 1991).

Options for the Treatment/Destruction of Polychlorinated Biphenyls (PCBs) and PCB-Contaminated Equipment (EPS, 1991).

Transport of Hazardous Wastes: Question and Answer Manual (Environment Canada, 1989 -EPS, En40-374/1989E).

**Topic:** Waste management

**Aspect:** PCBs

**Responsible authority - topic:** Sanitation supervisor

**Responsible authority - aspect:** Mechanical technician

**Year:** 2000

**Current status**

The old PCB storage unit was closed in 1997 following the elimination of all PCB-containing waste. The transformers and circuit breakers currently in storage do not contain PCBs.

Approximately 5,000 lamp ballasts are presently in use; roughly half of these may contain PCBs. These ballasts are being phased out as renovations or repairs take place. The technical services directorate is in charge of this work. The ballasts are then stored in a barrel located in the electrical room. A company specialized in the disposal of such items is called once a total of 42 ballasts have been deposited in the barrel. A paper record is kept of the number of collections and the number of barrels collected. Having a computerized management system will make it possible to manage the registers and invoices more effectively.

**Topic:** Waste management

**Aspect:** PCBs

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the risks associated with hazardous waste.

**TARGET (Ste. Anne's Hospital)**

Keep a computerized register of PCB disposal.

**ACTION PLAN**

1. Collect data.
2. Implement computerized system.
3. Enter data as it is generated.

**RESOURCES (\$)** part of EMS implementation

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** Date entry: Master electrician  
System management: Mechanical technician

**PERFORMANCE MEASURES**

Percentage of computerized system in place.

**Topic:** Waste management

**Aspect:** Biomedical waste

**Issue**

In the absence of federal regulations that deal specifically with biomedical waste, the federal government should seek to adhere to the strictest environmental objectives put forward by the CCME.

Other regulations and policies which fall under the jurisdiction of Health Canada and the ministère de la Santé et des Services sociaux du Québec and deal directly or indirectly with the management of biomedical waste should also be consulted.

**Topic:** Waste management

**Aspect:** Biomedical waste

### **Issue**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

#### **Federal government**

- ⇒ *Canadian Environmental Protection Act, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)*
- ⇒ *Transportation of Dangerous Goods Act 1992, S.C. (1992), c. 34*
  - *Transportation of Dangerous Goods Regulations, (1985) 119 C.G. II, 393*
- ⇒ *Guidelines for the Management of Biomedical Waste in Canada (CCME, 1992)*

#### **Provincial government**

- ⇒ *Environment Quality Act, L.R.Q., c. Q-2*
  - *Regulation respecting biomedical waste, (1992) G.O. II, 3312*
  - *Regulation respecting hazardous materials, (1997) G.O. II, 6681*



**Topic:** Waste management

**Aspect:** Biomedical waste

**Responsible authority – topic:** Sanitation supervisor

**Responsible authority – aspect:** Sanitation supervisor

**Year:** 2000

**Current status**

No surgeries or autopsies are performed at the Hospital. On-site laboratory testing has been reduced to a minimum. Most tests are performed in other hospitals or laboratories.

The laboratory department uses a just-in-time management system for drugs and laboratory products which is designed to reduce the amount of waste generated.

Biomedical waste is collected and disposed of on a bi-monthly basis by the company Contracteur Pyroval. The biomedical waste is sorted according to type. The company submits an invoice which lists the types and amounts of waste it has destroyed. This information is available but has never been compiled. A computerized management system would enable the Hospital to manage its dealings with the company more effectively, as well as monitor waste disposal more closely.

**Topic:** Waste management

**Aspect:** Biomedical waste

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Establish a biomedical waste management system.

**TARGET (Ste. Anne's Hospital)**

Implement a biomedical waste data collection system.

**ACTION PLAN**

1. Collect data.
2. Implement the computerized system.
3. Enter data as it is generated.

**RESOURCES (\$)** part of EMS implementation

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** Data entry: Administrative assistant, sanitation  
System management: Sanitation supervisor

**PERFORMANCE MEASURES**

Percentage of computerized system implemented

**Topic:** Water use

**Aspect:** Drinking water

**Issue**

The employer is required to provide employees with potable water for drinking, washing, and food preparation. This water must meet the standards set in *the Guidelines for Canadian Drinking Water Quality*. A number of sanitation regulations apply to the transportation of drinking water.

Operators of water distribution systems must ensure that the water they distribute meets drinking water standards. If these standards cannot be met, a clear warning to this effect should be posted near all water outlets.

**Topic:** Water use

**Aspect:** Drinking water

### **Issue**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

#### **Federal government**

- ⇒ *Canada Water Act (2000)*
- ⇒ *Guidelines for Canadian Drinking Water Quality (1996)*
- ⇒ *Canadian Labour Code, Part II*
- ⇒ *Sanitation Directive*

#### **Provincial government**

*Drinking water regulation*  
*Regulation respecting the quality of the work environment*  
*Regulation respecting industrial and commercial establishments*

- ⇒ *Critères de qualité de l'eau de surface au Québec*

**Topic:** Water use

**Aspect:** Drinking water

**Responsible authority - topic:**

Civil design technologist

**Responsible authority -aspect:**

Civil design technologist

**Year:** 2000

**Current status**

The Hospital is billed for water by the city of Ste-Anne-de-Bellevue. The water meters are read approximately every two weeks using the Cynergie software program (Excel format). Four water inlets are equipped with meters; two other meters measure the amount of water which goes to the main building and the water tower.

The current system indicates only that a detected leak has occurred inside or outside the main building. With additional meters at strategic points, leaks could be located more quickly and water consumption reduced.

The installation of water economizers on existing drinking water distribution systems would also help to reduce water consumption. A cost-benefit study should be conducted.

The Hospital experiences problems with water pressure in peak demand periods. The plumbing has deteriorated due to the presence of sand and other particles in the pipes. An agreement and a procedure have been established with Ste-Anne-de-Bellevue to deal with future water pressure problems.

The Department of Veterans Affairs has published an action plan 2000 on hazardous waste as part of its SDS. The plan proposes to reduce water consumption by 15%, relative to 1997 levels, by March 2001.

**Topic:** Water use

**Aspect:** Drinking water

**GOAL**

Reduce the use of natural resources associated with the consumption of goods and services.

**OBJECTIVE**

Reduce drinking water consumption.

**TARGET NO. 1 (Headquarters)**

Reduce water consumption by 15%, by March 2001.

**ACTION PLAN**

1. Identify strategic locations where meters should be installed.
2. Install meters at strategic locations in each building so that leaks can be located more quickly.
3. Install water economizers in order to reduce direct consumption.

**RESOURCES (\$)** based on strategic locations identified

**SCHEDULE TARGET** March 2002

**RESPONSIBLE AUTHORITY:** Civil design technologist

**PERFORMANCE MEASURES**

- Number of meters installed
- Progress made in reducing water consumption
- Economizers installed (percentage of systems retrofitted)

**Topic:** Water use

**Aspect:** Wastewater

### **Issue**

All effluents originating from facilities which are under the direct authority of the federal government, whether located on federal lands or not, must comply with the federal *Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments*.

In Quebec, municipalities can establish regulations which specify quality standards for the wastewater released into sewer systems. Most municipalities have environmental requirements or standards with which federal facilities and activities must comply. Federal facilities located within the territory of the CUM should comply with the environmental standards outlined in the CUM's *Règlement relatif aux rejets des eaux usées dans les réseaux d'égout et les cours d'eau*. [regulations respecting the release of wastewater into sewer systems and waterways].

Municipal and CUM standards prohibit the release of many different substances or materials, as well as minimum quality standards for a range of parameters relating to drainage systems, including combined systems and storm-water systems.

If effluents discharged from a federal facility constitute a fire or explosion hazard or could potentially damage a water catchment or treatment plant, or if such effluents fail to meet the standards that apply to effluents and receiving bodies of water, or violate municipal sewer regulations, they must be pre-treated before being discharged. Otherwise their discharge should be prohibited.

**Topic:** Water use

**Aspect:** Wastewater

## **Compliance**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### **Federal government**

⇒ *Canadian Environmental Protection Act*, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)

⇒ *Fisheries Act*, R.S.C. (1985), c. F-14

- *Guidelines for Effluent Quality and Wastewater Treatment at Federal Establishments*, April 1976. EPS-1-EC-76-1.

### **Provincial government**

⇒ *Environment Quality Act*, L.R.Q., c. Q-2

- *Regulation respecting snow elimination sites*, (1997), G.O. II, 5765

⇒ *Critères de qualité de l'eau*, (MENVIQ, 1990, revised 1992)

⇒ *Méthodologie de calcul de critères de qualité de l'eau pour les substances toxiques*, (MENVIQ, 1990)

⇒ *Politique sur l'élimination des neiges usées*, (MENVIQ, 1988)

⇒ *Gestion des neiges usées - Guide d'aménagement des lieux d'élimination de neige et mise en œuvre du Règlement sur les lieux d'élimination de neige*, (MEF, 1997)

### **Municipalities**

- *Règlement relatif aux rejets des eaux usées dans les réseaux d'égout et dans les cours d'eau* (no. 87), CUM

### **References**

Canadian Water Quality Guidelines (CCME, 1995)

Priority Substances List Assessment Report – Chlorinated Wastewater (Environment Canada and Health and Welfare Canada, 1993)

Standard Methods for the Examination of Water and Wastewater (American Public Health Association, American Water Works Association & Water Pollution Control Federation).



**Topic:** Water use

**Aspect:** Wastewater

**Responsible authority - topic:**

Civil design technologist

**Responsible authority- aspect:**

Civil design technologist

**Year:** 2000

**Current status**

The kitchen is equipped with a grease trap and the maintenance buildings have an oil recovery system. The Hospital's wastewater collection system feeds into the water treatment system of the CUM. This water is neither treated nor analysed as it exits the collection system. The CUM has not commented on this.

Although the CUM has not commented on this issue, an effluent quality monitoring station should be established to ensure that contamination does not occur.

**Topic:** Water use

**Aspect:** Wastewater

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the environmental risks associated with wastewater.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Ensure that wastewater complies with the legislation in force.

**ACTION PLAN**

1. Establish a sampling and analysis station.

**RESOURCES (\$)**                      included in the major renovation plan

**SCHEDULE TARGET**              March 2002

**RESPONSIBLE AUTHORITY:**      Civil design technologist

**PERFORMANCE MEASURES**

Percentage of work completed on station

**Topic:** Water use

**Aspect:** Wastewater

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the environmental risks associated with wastewater.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Implement a data compilation system.

**ACTION PLAN**

1. Meet target no. 1.
2. Collect information from the station.
3. Create a database.
4. Compile the information.

**RESOURCES (\$)** included in the major renovation plan

**SCHEDULE TARGET** December 2002

**RESPONSIBLE AUTHORITY:** Civil design technologist

**PERFORMANCE MEASURES**

Percentage of data compilation system in place  
Wastewater quality values

**Topic:** Energy use

**Aspect:** Energy consumption

**Issue**

Climate change is one of the most serious environmental problems the world has ever faced. Some predict that the gradual warming of the Earth's atmosphere will trigger a wide range of climatic changes which could have major repercussions on our environment, our health, our economy, and our children's future.

A number of minor gases present in the atmosphere allow sunlight to pass through but absorb much of the infrared thermal energy which travels from the Earth into space. This phenomenon is known as the "greenhouse effect" and the implicated gases are called "greenhouse gases." The most important greenhouse gases include water vapour, carbon dioxide, methane, ozone, nitrous oxide and halocarbons.

The principles of sustainable development suggest that we must make judicious use of renewable resources such as water, as well as non-renewable resources such as natural gas, for the sake of our economy and our children's future.

**Topic:** Energy use

**Aspect:** Energy consumption

**Responsible authority - topic:** Mechanical engineer

**Responsible authority - aspect:** Mechanical engineer

**Year:** 2000

**Current status**

The Hospital's energy sources are electricity, natural gas and fuel oil. Its boilers are powered by natural gas, with fuel oil used as an auxiliary source of energy. The Synergie software program makes it possible to measure energy consumption for all three sources. Energy consumption data (derived from invoices) is entered manually by a trainee in the mechanics subunit. A data compilation system that is integrated with the overall EMS will make it possible to monitor energy consumption more effectively.

Based on technical services directorate calculations, electricity consumption will increase by an estimated 10% in the fiscal year 2000-2001, in comparison with 1999-2000.

The major renovation project includes the construction of a new heating plant, as well as infrastructure improvements (insulation, windows, doors, etc.). These renovations will improve energy efficiency at the Hospital.

The Department of Veterans Affairs has published an action plan 2000 on energy efficiency as part of its SDS. The plan recommends that heating systems should be powered by alternative fuels, where feasible, by December 2003. This has already been achieved since current boilers use natural gas, as will any boilers installed in the future. Another departmental target is to reduce energy consumption by 15% by March 2001.

**Topic:** Energy use

**Aspect:** Energy consumption

**GOAL**

Reduce the use of natural resources to power Hospital facilities.

**OBJECTIVE**

Reduce energy consumption.

**TARGET NO. 2 (Headquarters)**

Reduce energy consumption by 15%, relative to 1997 levels, by March 2001.

**ACTION PLAN**

1. Assess the current situation with a view to improving energy efficiency.
3. Implement priority energy conservation measures.

**RESOURCES (\$)** included in the major renovation plan

**SCHEDULE TARGET** March 2002

**RESPONSIBLE AUTHORITY** Mechanical engineer

**PERFORMANCE MEASURES**

- Energy consumption values
- List of possible energy use improvements

**Topic:** Energy use

**Aspect:** Halocarbons

### **Issue**

Halocarbons, which are ozone-depleting substances (ODS), are regulated both federally and provincially, in accordance with the Montreal Protocol (1987), which calls for the phasing out of these substances.

Halocarbons are a group of substances which share common chemical characteristics. The most common ozone-depleting halocarbons are: tetrachloromethane (carbon tetrachloride), methylchloroform (MCF), chlorofluorocarbons (CFCs), bromofluorocarbons (halons), hydrobromofluorocarbons (HBFCs), methyl bromide and hydrochlorofluorocarbons (HCFCs). Other halocarbons which have been proposed as alternatives to ozone-depleting substances are hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs). However, it has now been established that these two alternative halocarbons are also greenhouse gases.

In federal facilities, halocarbons may be present in refrigeration or deep-freeze units, air-conditioning systems, heat pumps, water coolers and some types of fire extinguishers. Halocarbons are also used as solvents to clean or degrease electrical components, mechanical parts, medical and optical equipment, and precision instruments.

The *Ozone Depleting Substances Regulations* cover several aspects of the life cycle of ODS (production, import, sale, etc.), as well as the legality of the substances currently in use, and schedule targets for their elimination. The *Federal Halocarbon Regulations* deal with the management of halocarbons in federal facilities.

**Topic:** Energy use

**Aspect:** Halocarbons

## Compliance

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### Federal government

⇒ *Canadian Environmental Protection Act*, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)

- *Federal Halocarbon Regulations*
- *Ozone-Depleting Substances Regulations (1998)*, (1999) 133 C.G. II, 101

⇒ *Environmental Code of Practice for the Elimination of Fluorocarbon Emissions from Refrigeration and Air-Conditioning Systems*, (EPS 1/RA/2, March 1996)

⇒ *Environmental Code of Practice on Halons*, (EPS, 1996)

### Provincial government

⇒ *Environment Quality Act*, L.R.Q., c. Q-2

- *Regulation respecting the application of the Environment Quality Act*, (1993) G.O. II, 7766
- *Regulation respecting ozone-depleting substances*, (1993) G.O. II, 4130



**Topic:** Energy use

**Aspect:** Halocarbons

**Responsible authority - topic:**

Mechanical engineer

**Responsible authority – aspect:**

Refrigeration mechanic

**Year:** 2000

**Current status**

The Hospital has many drinking fountains, cold storage rooms, air-conditioning units, dehumidifiers and coolers. Information on this equipment is entered into the database, along with a computerized maintenance planning system. If a serious problem occurs, the responsible authorities are alerted. Any filling required for this equipment is performed by the refrigeration mechanic or by companies specialized in this type of equipment.

The refrigeration mechanic currently responsible for the maintenance of this equipment has received the new training in halocarbons.

Since the *Federal Halocarbon Regulations* contain numerous guidelines, it will be necessary to integrate these into the maintenance system.

The Regulations require that a report on halocarbon emissions be submitted to Environment Canada on a biannual basis. As yet, no report has been submitted. The personnel responsible for this equipment will also need to receive training so they can meet regulatory requirements.

In addition, there are pieces of equipment which are obsolete or no longer in use. A disposal program is needed in order to avoid halocarbon leaks due to the deterioration of this equipment.

The Department of Veterans Affairs has published an action plan 2000 on halocarbons as part of its SDS. The plan calls for the complete elimination of CFCs in VA facilities, where feasible, by March 2002.

**Topic:** Energy use

**Aspect:** Halocarbons

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Achieve compliance with current regulations.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Integrate regulatory requirements into the maintenance protocol and train personnel in charge.

**ACTION PLAN**

1. Assess changes to be made in the maintenance system.
2. Link the EMS register and the maintenance system.
3. Deliver training to the person responsible for halocarbon-containing equipment.

**RESOURCES (\$)**                      part of the Hospital's internal management budget

**SCHEDULE TARGET**              December 2000

**RESPONSIBLE AUTHORITY:**              Refrigeration mechanic

**PERFORMANCE MEASURES**

Percentage of necessary changes made to the maintenance system  
Number of persons trained

**Topic:** Energy use

**Aspect:** Halocarbons

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of site contamination.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Establish an up-to-date equipment inventory and eliminate older equipment which is no longer in use.

**ACTION PLAN**

1. Review inventory.
2. Evaluate systems for obsolescence.
3. Develop plans for the disposal of obsolete equipment.

**RESOURCES (\$)** included in the Hospital's internal management budget

**SCHEDULE TARGET** March 2005

**RESPONSIBLE AUTHORITY:** Mechanical technician

**PERFORMANCE MEASURES**

Percentage of inventory updated  
Percentage of obsolete equipment eliminated

**Topic:** Energy use

**Aspect:** Halocarbons

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of site contamination.

**TARGET NO. 3 (Headquarters)**

Completely phase out CFCs in these facilities, where feasible, by March 2002.

**ACTION PLAN**

1. Meet target no. 1.
2. Develop plans to dispose of the equipment.
3. Dispose of prioritized equipment.

**RESOURCES (\$)** included in major renovation plan

**SCHEDULE TARGET** March 2002

**RESPONSIBLE AUTHORITY:** Mechanical technician

**PERFORMANCE MEASURES**

Percentage of items disposed of and replaced

**Topic:** Energy use

**Aspect:** Asbestos

**Issue**

The *Canadian Environmental Protection Act (CEPA)* identifies asbestos as a toxic substance; the attendant regulations address the activities of asbestos extraction and processing plants. Guidelines on the handling of asbestos can be found in the Treasury Board Manual (Treasury Board, 1992) and the asbestos management directive issued by Public Works and Government Services Canada (1999).

**Topic:** Energy use

**Aspect:** Asbestos

## Compliance

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### Federal government

⇒ *Canada Labour Code*, R.S.C. (1985), c. L-2

- *Canada Occupational Safety and Health Regulations*, (1986) 120 C.G. II, 1105
- *Canada Occupational Safety and Health Regulations*, (1987) 121 C.G. II 1306, 1337, 1388 and 4087 (by sector: aircraft, watercraft, trains, oil and gas)

⇒ *Canadian Environmental Protection Act*, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)

⇒ *National Building Code of Canada* (NRC, 1990)

⇒ *National Fire Code of Canada* (NRC, 1995)

⇒ *Treasury Board Manual* (Treasury Board, 1992)

⇒ *Asbestos Management Directive* (Public Works and Government Services Canada, 1999)

### Provincial government

⇒ *Environment Quality Act*, L.R.Q., c. Q-2

- *Regulation respecting the application of the Environment Quality Act*, (1993) G.O. II, 7766
- *Regulation respecting hazardous materials*, (1997) G.O. II, 6681

⇒ *An act respecting occupational health and safety*, L.R.Q., c. S-2.1

- *Safety code for the construction industry*, R.R.Q., 1981, c. S-2.1, r.6

**Topic:** Energy use

**Aspect:** Asbestos

**Responsible authority – topic:**

Mechanical engineer

**Responsible authority – aspect:**

Architectural technologist

**Year:** 2000

**Current status**

Asbestos constitutes one of the main environmental problems at the Hospital. Most ducts are insulated with asbestos. In several areas, the asbestos is poorly encased or even exposed. A considerable amount of work has already been done to correct these problems in some parts of the Hospital.

Health Canada conducted an asbestos survey in 2000. An asbestos “map” is being developed, using the Hospital’s construction plans, and a project to eliminate and/or encase asbestos is being considered, as part of the major renovation project.

A register of renovations should be integrated into the EMS in order to closely monitor the work being done on asbestos. Such a register would also provide a better overview of the situation, and a means of quickly locating asbestos insulation in the future.

The Department of Veterans Affairs has published an action plan 2000 on asbestos as part of its SDS. The plan calls for the complete elimination of asbestos, where feasible, by March 2004.

**Topic:** Energy use

**Aspect:** Asbestos

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of asbestos contamination.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Develop an up-to-date statement of the asbestos situation.

**ACTION PLAN**

1. Complete identification of asbestos locations, based on Hospital construction plans.
2. Enter into the register the work being done on insulation—asbestos insulation in particular—as it proceeds.

**RESOURCES (\$)** included in the Hospital's internal management budget

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** Architectural technologist

**PERFORMANCE MEASURES**

- Percentage of register completed
- Degree to which the register is kept current



**Topic:** Energy use

**Aspect:** Asbestos

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of asbestos contamination.

**TARGET NO. 2 (Headquarters)**

Phase out asbestos which poses a risk to health by March 2004.

**ACTION PLAN**

1. Meet target no. 1.
2. Establish priorities based on the asbestos identification plan.
3. Enter work completed into the register.

**RESOURCES (\$)** based on work given priority

**SCHEDULE TARGET** March 2004

**RESPONSIBLE AUTHORITY:** Architectural technologist

**PERFORMANCE MEASURES**

Percentage of priority asbestos removed

**Topic:** Vehicle fleet

**Issue**

At the federal level, the maintenance and repair of air-conditioning systems in motor vehicles is governed by the *Ozone-Depleting Substances Regulations*. Federal motor vehicle purchasing must comply with the *Alternative Fuels Regulations*.

The relevant provincial legislation does not establish emission standards for motor vehicles but does require that emission control devices be installed on vehicles.

In the absence of specific federal regulations, federal vehicle repair facilities should comply with provincial environmental standards and regulations with respect to emissions.

**Topic:** Vehicle fleet

**Compliance**

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**Federal government**

- ⇒ *Canadian Environmental Protection Act*, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)
  - *Environmental Code of Practice for the Elimination of Fluorocarbon Emissions from Refrigeration and Air-Conditioning Systems* (Environment Canada, EPS 1/RA/2, 1996)
  - *Ozone-Depleting Substances Regulations (1998)*, (1999) 133 C.G. II, 101
- ⇒ *Alternative Fuels Act*, S.C. 1995, c. 20
  - *Alternative Fuels Regulations*, (1996) C.G II, 2915
- ⇒ *Environmental Code of Practice for Motor Vehicle Emission Inspection and Maintenance Programs* (CCME, 1994).

**Provincial government**

- ⇒ *Environment Quality Act*, R.S.Q., c. Q-2
  - *Regulation respecting the quality of the atmosphere*, R.R.Q., 1981, c. Q-2, r.20
  - *Regulation respecting ozone-depleting substances*, (1993) G. O. II, 4130

**Topic:** Vehicle fleet

**Responsible authority - topic:** Manager, sanitation department

**Year:** 2000

**Current status**

The Administrative Services Directorate has four minibuses and one five-tonne truck. The technical services directorate has one truck which covers at least 10,000 km per year. It is now in poor condition and will soon be replaced by an electric vehicle. Fleet maintenance services are provided by a local dealership.

Each driver is responsible for ensuring that his or her vehicle is properly maintained. Vehicle use authorization is conditional upon signing a maintenance contract. A register is kept for each vehicle.

The Department of Veterans Affairs has published an action plan 2000 on the vehicle fleet, as part of its SDS. This plan recommends the use of QTOOL to manage the vehicle fleet, as well as the purchase of alternative fuels where feasible.

At present, another vehicle management and maintenance system is in place, replacing QTOOL which is poorly suited to the needs of the Hospital.

Ride-sharing is provided for the families of Hospital residents through a system managed by the volunteer department. The idea of employee ride-sharing should be explored with a view to reducing the size of the fleet, as well as atmospheric emissions.

**Topic:** Vehicle fleet

**GOAL**

Prevent pollution associated with the vehicle fleet.

**OBJECTIVE**

Adopt a green approach to managing the vehicle fleet.

**TARGET NO. 1 (Headquarters)**

Purchase alternative-fuel vehicles or hybrid vehicles, where feasible, between now and March 2003.

**ACTION PLAN**

1. When purchasing a new vehicle, select a vehicle which uses alternative fuel where feasible.

**RESOURCES (\$)**    vehicle purchase and maintenance

**SCHEDULE TARGET**    At the time of each purchase

**RESPONSIBLE AUTHORITY:**    Purchaser, material operations

**PERFORMANCE MEASURES**

Number of alternative-fuel vehicles

**Topic:** Vehicle fleet

**GOAL**

Prevent pollution associated with the vehicle fleet.

**OBJECTIVE**

Reduce greenhouse gas emissions.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Conduct a ride-sharing feasibility study with Hospital personnel.

**ACTION PLAN**

1. Conduct the feasibility study.

**RESOURCES (\$)** Feasibility study

**SCHEDULE TARGET** March 2002

**RESPONSIBLE AUTHORITY:** Environmental committee

**PERFORMANCE MEASURES**

Completed feasibility study

**Topic:** Land use management

**Aspect:** Contaminated sites

### **Issue**

Contaminated land is defined as land where the soil, sediments, waste, water table or surface waters have been contaminated by substances which are present in concentrations which exceed benchmark criteria or pose a present or imminent threat to human health or the environment. Contaminated site management refers to the process of identifying, assessing, and reclaiming such sites.

There are several acts and regulations which deal with the various aspects of federal land management in cases of contamination or potential contamination. A number of guidelines for the protection of the environment and human health address land use management.

At the federal level, the *Guidance Document on the Management of Contaminated Sites in Canada* (CCME, 1997) provides procedural guidance to those managing contaminated sites, links existing CCME documents to aid their effective use, to educate and inform government, industry and the public about the issues involved; and to assist in establishing a common approach to the management of contaminated sites.

The *Interim Canadian Environmental Quality Criteria for Contaminated Sites* (CCME, 1991) establish numerical limits for contaminants in soil and groundwater in order to maintain, improve and protect environmental quality and human health when a site is found to be contaminated. The *Canadian Soil Quality Guidelines* (CCME, 1997) have been designed specifically for the protection of ecological receptors in the environment or for the protection of human health associated with identified land uses, which are agriculture, residential/parklands, commercial and industrial. The Guidelines update soil quality criteria for a series of twenty parameters.

At the provincial level, the *Politique de protection des sols et de réhabilitation des terrains contaminés* [Soil protection and contaminated site regeneration policy] (MEF, 1998) is designed to protect soil and groundwater through the prevention of localized or nonpoint-source contamination resulting from industrial or commercial activity, as well as the remediation of sites which have been contaminated through such activity.

**Topic:** Land use management

**Aspect:** Contaminated sites

## Compliance

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### Federal government

- ⇒ *Canadian Environmental Protection Act, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)*
  - *Environmental Code of Practice for Underground Tank Systems for Petroleum Products and Allied Petroleum Products, (1995) 129 C.G. I, 698*
  - *Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products, (1996) 130 C.G. I, 2351*
  - *Storage of PCB Material Regulations*
- ⇒ *Guidance Document on the Management of Contaminated Sites in Canada (CCME, 1997)*
- ⇒ *National Classification System for Contaminated Sites (CCME, 1992)*
- ⇒ *Interim Canadian Environmental Quality Criteria for Contaminated Sites (CCME, 1991)*
- ⇒ *Canadian Soil Quality Guidelines (CCME, 1997)*
- ⇒ *A Framework for Ecological Risk Assessment: General Guidance (CCME, 1996)*
- ⇒ *Guidance Manual for Developing Site-Specific Soil Quality Remediation Objectives for Contaminated Soil in Canada (CCME, 1996)*

### Provincial government

- ⇒ *Environment Quality Act, L.R.Q., c. Q-2*
  - *Regulation respecting hazardous materials, (1997) G. O. II, 6681*
- ⇒ *An Act respecting the use of petroleum products, L.R.Q., c. U-1.1*
  - *Petroleum Products Regulation, (1991) G. O. II, 2834*
- ⇒ *Politique de protection des sols et de réhabilitation des terrains (MEF, 1998)*
- ⇒ *Lignes directrices pour le traitement des sols par biodégradation, bioventilation ou volatilisation (MEF, 1996)*
- ⇒ *Guide de bonnes pratiques sur le démantèlement et la gestion de matériaux de démantèlement (Ministère de l'Environnement du Québec, in progress)*



⇒ *Enlèvement de réservoirs souterrains ayant contenu des produits pétroliers - Lignes directrices d'intervention* (MEF, 1996).

⇒ *Guide technique des mesures de contrôle à effectuer lors des travaux d'excavation des sols contaminés* (MENVIQ, 1988).

## References

Canadian Water Quality Guidelines (CCREM, 1987)

Conservation et analyse des échantillons d'eau et de sol (MEF, 1996)

Contaminated Sites Liability Report – Recommended Principles for a Consistent Approach Across Canada (CCME, 1993)

Framework for Ecological Risk Assessment: Technical Appendices (A)(CCME, 1997)

Guidance Manual on Sampling, Analysis and Data Management for Contaminated Sites, Volume I : Main Report (CCME, 1993)

Guidance Manual on Sampling, Analysis and Data Management for Contaminated Sites, Volume II : Summary of Analytical Methods (CCME, 1993)

Guide d'implantation et de gestion de lieux d'enfouissement de sols contaminés (MENVIQ, 1988)

Guide standard de caractérisation de terrains contaminés (MENVIQ, 1996)

Politique de protection et de conservation des eaux souterraines (Ministère de l'Environnement du Québec, in progress)

Problématique des sols et des eaux souterraines contaminés par des produits pétroliers (MEF, 1996)

Procedures for Conducting Human Health Risk Assessment at Contaminated Sites in Canada (CCME) – not available in French

Protocol for the Derivation of Environmental and Human Health Soil Quality Guidelines (A) (CCME, 1996)

Review and Recommendations for Interim Canadian Environmental Quality Criteria for Contaminated Sites (Environment Canada, 1991)

Review and Recommendations for a Framework for Ecological Risk Assessment at Contaminated Sites in Canada (Environment Canada, 1994)

Review of Predictive Modelling and Uncertainty Analysis for Application in Ecological Risk Assessments (Environment Canada, in progress)

Speciation of Toxic Elements in Soils: Review and Recommendations for Application in Ecological Risk Assessment (Environment Canada, in progress)

Subsurface Assessment Handbook for Contaminated Sites (CCME, 1994)

**Topic:** Land use management

**Aspect:** Contaminated sites

**Responsible authority – topic:** Civil design technologist

**Responsible authority – aspect :** Civil design technologist

**Year:** 2000

**Current status**

Some areas of the hospital complex may be contaminated, including the site of the old incinerator, the site of the old hospital, and disused petroleum storage tanks. A register of all contaminated sites and decontamination priorities should be established in order to manage these sites and plan decontamination activities more effectively.

**Topic:** Land use management

**Aspect:** Contaminated sites

**GOAL**

Prevent pollution associated with the operation of hospital facilities.

**OBJECTIVE**

Reduce the risk of environmental contamination.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Maintain an up-to-date record of the status of contaminated sites.

**ACTION PLAN**

1. Collect data.
2. Implement computerized system.
3. Enter data as it is generated.

**RESOURCES (\$)**                      part of EMS implementation

**SCHEDULE TARGET**              December 2001

**RESPONSIBLE AUTHORITY:**    Civil design technologist

**PERFORMANCE MEASURES**

Percentage of register completed  
Currency of register

**Topic:** Land use management

**Aspect:** Contaminated sites

**GOAL**

Prevent pollution associated with the operation of hospital facilities.

**OBJECTIVE**

Reduce the risk of environmental contamination.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Decontaminate identified sites by March 2005

**ACTION PLAN**

1. Meet target no. 1
2. Establish a decontamination program and a budget for the other sites.

**RESOURCES (\$)**                      based on the assessment of contaminated sites

**SCHEDULE TARGET**              March 2005

**RESPONSIBLE AUTHORITY:**    Civil design technologist

**PERFORMANCE MEASURES**

Number of decontaminated sites

**Topic:** Land use management

**Aspect:** Storage tank systems

### **Issue**

Federal guidelines respecting the design and operation of petroleum product storage tank systems have been adopted under section 53 of the CEPA.

It is expressly forbidden to transfer or cause to be transferred any petroleum product or allied petroleum product in a storage system which has not been registered with the appropriate federal authorities, in accordance with the *Regulations for Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands*.

The *Alternative Fuels Act* provides for the gradual phasing out of petroleum products as a source of fuel for the motor vehicle fleet.

At the provincial level, *An Act respecting the use of petroleum products* establishes, among other things, standards for the storage of petroleum products in Quebec. Generally speaking, these standards are consistent with the recommendations found in federal guidelines. However, in cases where Quebec regulations establish more stringent environmental standards, or in the absence of relevant federal guidelines, federal storage tank systems which are located on non-crown lands should comply with prevailing provincial standards.

The *Regulation respecting the quality of the atmosphere* establishes maximum concentrations for sulphur in stationary combustion systems. The purpose of these standards is to indirectly limit sulphur emissions.

**Topic:** Land use management

**Aspect:** Storage tank systems

## Compliance

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### Federal government

⇒ *Canadian Environmental Protection Act, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)*

- *Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products, (1996) 130 C.G. I, 2351*
- *Environmental Code of Practice for Underground Storage Tank Systems for Petroleum Products and Allied Petroleum Products, (1995) 129 C.G. I, 698*
- *Regulations for Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands, (1997) 131 C.G. II, 58*

⇒ *Alternative Fuels Act, S.C. 1995, c. 20*

⇒ *Hazardous Products Act, R.S.C. (1985), c. H-3*

- *Controlled Products Act, (1988) 122 C.G. II, 551*

⇒ *National Fire Code of Canada*

### Provincial government

⇒ *Environment Quality Act, L.R.Q., c. Q-2*

- *Regulation respecting the quality of the atmosphere, R.R.Q., 1981, c. Q-2, r.20*
- *Regulation respecting hazardous materials, (1997) G. O. II, 6681*

⇒ *An Act respecting the use of petroleum products, L.R.Q., c. U-1.1*

- *Petroleum products regulation, (1991) G. O. II, 2834*

### References

Code of Practice for Used Oil Management in Canada (CCME, 1989).

Environmental Code of Practice for Aboveground Storage Tank Systems Containing Petroleum Products (CCME, 1994).

Environmental Code of Practice for Motor Vehicle Emission Inspection and Maintenance Programs (CCME, 1994).

Environmental Code of Practice for Underground Storage Tank Systems for Petroleum Products and Allied Petroleum Products (CCME, 1993).

Environmental Code of Practice for Vapor Recovery During Vehicle Refuelling at Service Stations and Other Gasoline Dispensing Facilities (Stage 2) (CCME, 1995).

Environmental Code of Practice for Vapor Recovery in Gasoline Distribution Networks (CCME, 1991).

Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds for Aboveground Storage Tanks (CCME, 1995).



**Topic:** Land use management

**Aspect:** Storage tank systems

**Responsible authority – topic:** Civil design technologist

**Responsible authority – aspect:** Civil design technologist

**Year:** 2000

**Current status**

There are eleven oil storage tanks on Hospital grounds. Nine of these are aboveground tanks and two are underground and disused. The storage tanks in the heating plant are linked to an alarm and maintenance-management system (Veederroot). The relevant data is recorded but not produced on paper.

A number of old aboveground storage tanks also need to be upgraded, according to the environmental auditors who visited in September 2000.

Although oil storage tanks are not governed by provincial legislation, the Hospital must nonetheless comply with the *Regulations for Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products on Federal Lands*. A register of all storage tanks must be established, and an annual emissions report produced, in accordance with these Regulations.

Disused underground storage tanks and contaminated soil will be eliminated as part of the major renovation project.

**Topic:** Land use management

**Aspect:** Storage tank systems

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Comply with prevailing legislation.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Establish a register of storage tanks and a form for the annual report.

**ACTION PLAN**

1. Establish an inventory of storage tanks and their characteristics.
2. Develop a register.
3. Compile data.
4. Distribute annual report to persons concerned.

**RESOURCES (\$)** included in the Hospital's internal management report

**SCHEDULE TARGET** Non-applicable

**RESPONSIBLE AUTHORITY:** Civil design technologist

**PERFORMANCE MEASURES**

Registration of storage tanks  
Form sent out  
Percentage of register completed

**Topic:** Land use management

**Aspect:** Storage tank systems

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of environmental contamination.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Eliminate disused storage tanks.

**ACTION PLAN**

1. Integrate this target into the major renovation project.

**RESOURCES (\$)**                      part of major renovation project

**SCHEDULE TARGET**              December 2002

**RESPONSIBLE AUTHORITY:**    Civil design technologist

**PERFORMANCE MEASURES**

Inclusion of target in major renovation plan

**Topic:** Land use management

**Aspect:** Storage tank systems

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of environmental contamination.

**TARGET NO. 3 (Ste. Anne's Hospital)**

Upgrade aboveground storage tanks.

**ACTION PLAN**

1. Identify storage tanks.
2. Establish priority list of storage tanks to be upgraded.
3. Enter changes made into the register.

**RESOURCES (\$)**                      \$5,000

**SCHEDULE TARGET**              December 2000

**RESPONSIBLE AUTHORITY:**    Civil design technologist

**PERFORMANCE MEASURES**

Percentage of storage tanks upgraded

**Topic:** Land use management

**Aspect:** Pesticides

### **Issue**

The federal *Pest Control Products Act* regulates products used for the control of pests and the organic function of plants and animals.

In Quebec, the *Pesticides Act* is designed to reduce and rationalize the use of pesticides. The Act provides for the implementation of mechanisms to ensure that users and vendors of pesticides are qualified and aware of the risks and hazards associated with these products. Any person who uses or sells pesticides is required to hold a permit or certificate.

**Topic:** Land use management

**Aspect:** Pesticides

## **Compliance**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### **Federal government**

⇒ *Pest Control Products Act*, R.S.C. (1985), c. P-9

*Pest Control Products Regulations*, C.R.C., c. 1253

### **Provincial government**

⇒ *Pesticides Act*, L.R.Q., c. P-9.3

*Regulation respecting permits and certificates for the sale and use of pesticides* (1997) G.O. II, 1575

⇒ *Canadian Environmental Protection Act*, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)

*Regulation respecting the application of the Environment Quality Act*, (1993) G.O. II

### **References**

Code de gestion des pesticides, preliminary version (MENVIQ, 1989).

Treasury Board Manual (Treasury Board, 1992).

**Topic:** Land use management

**Aspect:** Pesticides

**Responsible authority – topic:** Civil design technologist

**Responsible authority – aspect:** Sanitation supervisor

**Year:** 2000

**Current status**

No pesticides are used on Hospital grounds, due to the health risks which such products may pose to elderly residents.

Inside the Hospital, a variety of pest control products are used, including insect strips, sprays and traps. The sanitation department and an outside contractor are responsible for the scheduled application of these products. It would seem that no fact sheets on these products are kept at the Hospital.

**Topic:** Land use management

**Aspect:** Pesticides

**GOAL**

Prevent pollution associated with the operation of hospital facilities.

**OBJECTIVE**

Reduce the risk of environmental contamination.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Obtain fact sheets on the pest control products used at the Hospital.

**ACTION PLAN**

1. Request the fact sheets from the contractor.
2. Insert the fact sheets into the Hospital's WHMIS guidebook.

**RESOURCES (\$)**                      part of the Hospital's internal management budget

**SCHEDULE TARGET**              March 2001

**RESPONSIBLE AUTHORITY:**    Sanitation supervisor

**PERFORMANCE MEASURES**

Fact sheets available on-site



**Topic:** Land use management

**Aspect:** De-icing salt

**Issue**

In the absence of specific federal regulations, the federal government's use of de-icing salt, both on and off federal lands, should comply with the environmental standards set forth in Quebec's *Regulation respecting snow elimination sites*, as well as with provincial policy in these matters.

**Topic:** Land use management

**Aspect:** De-icing salt

## **Compliance**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### **Provincial government**

⇒ *Canadian Environmental Protection Act, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)*

*Regulation respecting the application of the Environment Quality Act, (1993)*

*G.O. II,*

*Regulation respecting snow elimination sites, (1997) G.O. II, 5765*

### **References**

Treasury Board Manual (Treasury Board, 1992).

**Topic:** Land use management

**Aspect:** De-icing salt

**Responsible authority – topic:** Civil design technologist

**Responsible authority – aspect:** Civil design technologist

**Year:** 2000

**Current status**

De-icing salt is kept in a enclosed area, on wooden pallets. Cleared snow is banked up on Hospital grounds; accumulated gravel and other waste are removed in the spring. The type of salt used is magnesium chloride (ICE-O-LATER). Using minimum amounts of this product at the most opportune times would help to minimize the impact of de-icing on runoff water.

**Topic:** Land use management

**Aspect:** De-icing salt

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of environmental contamination.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Keep a register of the amounts of de-icing salt used at the Hospital.

**ACTION PLAN**

1. Obtain an annual statement from the contractor concerning the amount of salt used on Hospital grounds.

**RESOURCES (\$)**                      part of EMS implementation

**SCHEDULE TARGET**            December 2001

**RESPONSIBLE AUTHORITY:** Civil design technologist

**PERFORMANCE MEASURES**

Amount of salt used in the course of the winter

**Topic:** Land use management

**Aspect:** De-icing salt

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of environmental contamination.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Reduce the amount of salt used on Hospital grounds by 10%, by March 2003.

**ACTION PLAN**

3. Meet target no. 1.
4. Working with the contractor, determine the most effective ways of using de-icing salt (temperature, pavement condition, etc.)
5. Each year, record the amount of salt used in the register.

**RESOURCES (\$)**                      part of the Hospital's internal management budget

**SCHEDULE TARGET**              March 2003

**RESPONSIBLE AUTHORITY:**    Civil design technologist

**PERFORMANCE MEASURES**

Amount of salt used in the course of the winter

**Topic:** Land use management

**Aspect:** Hazardous materials

### **Issue**

On the site of federal facilities, the WHMIS is applied through the *Canadian Labour Code*, the *Canadian Occupational Safety and Health Regulations*, as well as sector-specific *Occupational Safety and Health Regulations*. The *Canadian Labour Code* prohibits the use of hazardous substances when alternative non-hazardous substances are available.

The *Canadian Environmental Protection Act* contains general prohibitions concerning the release of toxic substances into the environment. The CEPA also states that anyone who releases a controlled hazardous substance into the environment must report the event and take all necessary measures to prevent an emergency, as well as to remediate, avoid or attenuate any actual or probable harmful effects to the environment or to human life and health.

Under the *Transportation of Dangerous Goods Act 1992*, requirements regarding the handling and transport of hazardous goods, including transport requisition procedures, have been standardized across Canada. Federal regulations give priority to the protection of persons and property; environmental protection is subordinate to these priorities.

The *National Building Code of Canada* and the *National Fire Code of Canada* comprise recommendations concerning the storage of hazardous materials, including the design, construction and organization of storage facilities.

The *Hazardous Products Act* stipulates that the use and handling of hazardous materials in the workplace must comply with the rules set forth in the Workplace Hazardous Materials Information System (WHMIS).

**Topic:** Land use management

**Aspect:** Hazardous materials

## Compliance

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### Federal government

- ⇒ *Canadian Labour Code*, R.S.C. (1985), c. L-2
  - *Canadian Occupational Safety and Health Regulations*, (1986) 120 C.G. II, 1105
  - *Occupational Safety and Health Regulations*, (1987) 121 C.G. II, 1306, 1337, 1388 and 4087 (by activity sector: aircraft, ships, trains, oil and gas)
- ⇒ *Canadian Environmental Protection Act*, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)
  - *Priority Substances List 2*, (1994) 129 C.G. I, 4238
- ⇒ *Transportation of Dangerous Goods Act 1992*, S.C. 1992, c. 34
  - *Transportation of Dangerous Goods Regulations*, (1985) 119 C.G. II, 393
- ⇒ *National Building Code of Canada*, (NRC, 1990)
- ⇒ *National Fire Code of Canada*, (NRC, 1995)
- ⇒ *Hazardous Materials Information Review Act*, R.S.C. (1985), c. 24
  - *Hazardous Materials Information Review Regulations*, (1988) 122 C.G. II, 3823
- ⇒ *Fisheries Act*, R.S.C. (1985), c. F-14
- ⇒ *Hazardous Products Act*, R.S.C. (1985), c. H-3
  - *Controlled Products Regulations*, (1988) 122 C.G. II, 551

### Provincial government

- ⇒ *Highway Safety Code*, L.R.Q., c. C-24.2
  - *Transportation of dangerous substances regulations*, (1988) G.O. II, 2746

⇒ *Environment Quality Act*, L.R.Q., c. Q-2

- *Regulation respecting the application of the Environment Quality Act* (1993) G.O. II, 7766
- *Regulation respecting hazardous substances*, (1997) G.O. II, 6681

⇒ *An Act respecting occupational health and safety*, L.R.Q., c. S-2.1

- *Safety code for the construction industry*, R.R.Q., 1981, c. S-2.1, r.6
- *Regulation respecting information on controlled products*, (1989) G.O. II, 1952
- *Regulation respecting industrial and commercial establishments*, R.R.Q., 1981, c. S-2.1, r.9

## References

Guide for the Management of Hazardous Materials and Waste at Federal Facilities in Quebec (Environment Canada, 1994)

International Maritime Dangerous Goods Code (International Maritime Organization)

List of analytical methods respecting the application of *Environment Quality Act* regulations (L.R.Q., c.Q-2) – *Regulation respecting hazardous substances*, (Q-2, r.3.01) (MEF and the Centre d'expertise en analyse environnementale du Québec, 1997)

Packaging of Infectious Substances and Diagnostic Specimens (CSA Standards, 1990, CAN/CGSB-43, 125-M90)

Treasury Board Manual (Treasury Board, 1992)



**Topic:** Land use management

**Aspect:** Hazardous substances

**Responsible authority – topic:** Civil design technologist

**Responsible authority – aspect:** WHMIS coordinator

**Year:** 2000

**Current status**

The Hospital's occupational safety and health committee (OSHC) has successfully implemented the WHMIS with staff and closely monitors the training they receive. The training delivered to the major stakeholders (OSHC, nurses, etc.) is highly relevant and well designed. The Hospital's goal is to ensure that every employee receives this training.

A register of hazardous materials exists on paper and is the responsibility of certain members of the OSHC committee. Some of the data is processed electronically by the OSHC nurse. Linking this register with the EMS would provide a definite advantage.

The Department of Veterans Affairs has published an action plan 2000 on hazardous materials as part of its SDS. This action plan will be integrated into the Hospital's EMS. The plan requires Headquarters to develop a protocol for the use of economic alternatives to hazardous materials.

**Topic:** Land use management

**Aspect:** Hazardous materials

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Establish a computerized hazardous materials management system.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Keep an up-to-date, computerized inventory.

**ACTION PLAN**

1. Collect data.
2. Implement computerized system.
3. Enter data as it is generated.

**RESOURCES (\$)** part of EMS implementation

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** WHMIS coordinator

**PERFORMANCE MEASURES**

Percentage of computerized system in place.

**Topic:** Land use management

**Aspect:** Hazardous materials

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Establish a computerized hazardous materials management system.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Maintain a register of the movement of hazardous products.

**ACTION PLAN**

1. Meet target no. 1.
2. Appoint an officer to oversee the movement of products.
3. Store products in a protected area, along with the register.

**RESOURCES (\$)** part of EMS implementation

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** WHMIS coordinator

**PERFORMANCE MEASURES**

Officer appointed  
Register established

**Topic:** Land use management

**Aspect:** Hazardous materials

**GOAL**

Prevent pollution associated with the consumption of goods and services.

**OBJECTIVE**

Reduce the risks associated with hazardous waste.

**TARGET NO. 3 (Ste. Anne's Hospital)**

Follow up with Headquarters to determine the degree of completion of the protocol on the use of economical alternatives to hazardous materials and/or processes that generate hazardous waste, by April 2002.

**ACTION PLAN**

1. Identify the person in charge of the manual at Headquarters.
2. Communicate on a monthly basis with the person in charge of developing the manual.
3. Keep a record of these exchanges.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** April 2002

**RESPONSIBLE AUTHORITY**

Manual writing: Headquarters  
Communication with HQ: Environmental coordinator

**PERFORMANCE MEASURES**

Record of exchanges with Headquarters

**Topic:** Human resource management

**Aspect:** Training

**Issue**

Employees who will be involved in the development and implementation of the EMS will require training in their new duties. This training will keep pace with the EMS implementation process.

All other employees will need to be sensitized to the environmental programs that are being put in place. They should be informed that an environmental committee has been established and is prepared to receive their comments and ideas. Employees will receive a list of the responsible authorities for each topic, so they will know to whom to turn should problems arise.

**Topic:** Human resource management

**Aspect:** Training

**Responsible authority – topic:** Training adviser

**Responsible authority – aspect:** Training adviser

**Year:** 2000

**Current status**

Each department at the Hospital has a management training program tailored to the duties and responsibilities of its management staff. An environmental training plan will be established and integrated into the existing training. This plan will initially give priority to those to whom responsibility for the various environmental aspects has been delegated.

The degree of environmental awareness of all employees will be a crucial element in the success of future environmental programs. Awareness can be developed through meetings, special events and other activities.

**Topic:** Human resource management

**Aspect:** Training

**GOAL**

Ensure that sustainable development is an integral component of the management system of Ste. Anne's Hospital.

**OBJECTIVE**

Develop employee training modules.

**TARGET (Ste. Anne's Hospital)**

Ensure that employees receive the training they need to perform their roles and responsibilities with respect to the environmental targets and aspects outlined in the EMS.

**ACTION PLAN**

1. Define how the EMS will be implemented at the Hospital.
2. Identify the training needs of the employees concerned.
3. Group employees based on their responsibilities and deliver training as the EMS is being implemented.

**RESOURCES**      part of EMS implementation

**SCHEDULE TARGET**      December 2001

**RESPONSIBLE AUTHORITY**      Environmental coordinator

**PERFORMANCE MEASURES**

Number of employees trained

**Topic:** Human resource management

**Aspect:** Awareness

**Responsible authority – topic:** Training adviser

**Responsible authority – aspect:** Environmental committee

**Year:** 2000

**Current status**

The degree of environmental awareness of all employees will be a crucial element in the success of future environmental programs. Awareness can be developed through meetings, special events and other activities.

The Department of Veterans Affairs has published an action plan 2000 on training as part of its SDS. The plan requires Headquarters to incorporate sustainable development and environmental awareness into employee orientation packages by April 2001. It also states that sustainable development must be integrated into the leadership training program by April 2001 and that sustainable development and environmental awareness briefing sessions must be provided for all employees by December 2002.



**Topic:** Human resource management

**Aspect:** Awareness

**GOAL**

Ensure that sustainable development is an integral part of the management system of Ste. Anne's Hospital.

**OBJECTIVE**

Inform employees about the environmental programs.

**TARGET NO. 1 (Ste. Anne's Hospital)**

Follow up on employee orientation packages with Headquarters.

**ACTION PLAN**

1. Identify the person in charge of the manual at HQ.
2. Communicate on a monthly basis with the person responsible for developing the manual.
3. Keep a record of these exchanges.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** October 2001

**RESPONSIBLE AUTHORITY**

Manual writing: Headquarters  
Communications with HQ: Environmental coordinator

**PERFORMANCE MEASURES**

Up-to-date record of exchanges with HQ.  
Communications plan  
List distributed

**Topic:** Human resource management

**Aspect:** Awareness

**GOAL**

Ensure that sustainable development is an integral component of the management system of Ste. Anne's Hospital.

**OBJECTIVE**

Inform employees about the environmental programs.

**TARGET NO. 2 (Ste. Anne's Hospital)**

Inform employees about the environmental programs.

**ACTION PLAN**

1. Identify the programs in which employees are to be involved.
2. Establish a list of promotional activities.
3. Conduct activities at appropriate times in the course of the implementation process.

**RESOURCES (\$)** part of the Hospital's internal management budget

**SCHEDULE TARGET** December 2001

**RESPONSIBLE AUTHORITY** Environmental committee

**PERFORMANCE MEASURES**

List of programs

List of activities

**Topic:** Environmental assessment

**Aspect:** CEAA

### **Issue**

The Government of Canada has established an environmental self-assessment process to ensure that the environmental effects of federal projects are taken into account at the planning stage, before unalterable decisions are taken. It is the Canadian Environmental Assessment Act (CEAA)

In cases where an environmental assessment touches on areas of provincial jurisdiction, the CEAA contains mechanisms for a joint assessment process, in order to avoid duplication of effort.

**Topic:** Environmental assessment

**Aspect:** CEAA

## **Compliance**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

### **Federal government**

⇒ *Canadian Environmental Assessment Act, S.C . 1992, c. 37*

- *Inclusion List Regulations, (1994) 128 C.G. II, 3391*
- *Exclusion List Regulations, (1994) 128 C.G. II, 3410*
- *Law List Regulations, (1994) 128 C.G. II, 3381*
- *Comprehensive Study List Regulations, (1994) 128 C.G. II, 3401*
- *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements, (1997) 131 C.G. II, 1168*
- *Projects Outside Canada Environmental Assessment Regulations, (1996) 130 C.G. II, 3155*

### **Provincial government**

*Regulation respecting environmental impact assessment and review, R.R.Q. 1981, c.Q-2, r-9*

### **References**

Cumulative Effects Assessment: Practitioner's Guide (Canadian Environmental Assessment Agency, 1999).

Grille d'évaluation des impacts potentiels de différents types de projets en relation avec les habitats du poisson (DFO, 1992).

Guide d'évaluation des projets d'infrastructures linéaires en relation avec les habitats du poisson (DFO, 1992).

Guide for the environmental evaluation of bridge and road maintenance, repair and demolition projects (DFO, 1994).

Guide to environmental assessments – Assessing cumulative effects (Parks Canada)

Guide législatif concernant l'évaluation de projets en matière d'environnement au Québec (DFO, 1994).

Operational Policy Statement: Addressing Cumulative Environmental Effects under the *Canadian Environmental Assessment Act*.

Périmètres de protection autour des ouvrages de captage d'eau souterraine (Les) (MEF, 1995).

Répertoire de guides techniques d'intervention en environnement (Environment Canada, 1995).

Responsible Authority's Guide – Canadian Environmental Assessment Act (Canadian Environmental Assessment Agency, 1994).

The Citizen's Guide – Canadian Environmental Assessment Process (Canadian Environmental Assessment Agency).

**Topic:** Environmental assessment

**Aspect:** CEAA

**Responsible authority – topic:** Environmental coordinator

**Responsible authority – aspect:** Environmental coordinator

**Year:** 2000

### **1. Current status**

The Hospital does not have an environmental assessment protocol. Although most of the work being done falls into the category of maintenance and repair, which is generally not addressed by the CEAA, a protocol must be put in place in order to comply with the prevailing legislation.

**Topic:** Compliance

**Aspect:** CEAA

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Comply with prevailing legislation.

**TARGET (Ste. Anne's Hospital)**

Develop an environmental assessment protocol.

**ACTION PLAN**

1. Establish a list of the work routinely carried out at the Hospital.
2. Draft an assessment protocol.
3. Train project officers to use the protocol.

**RESOURCES (\$)**                      \$10,000

**SCHEDULE TARGET**            December 2000

**RESPONSIBLE AUTHORITY:**    Environmental coordinator

**PERFORMANCE MEASURES**

- Drafted protocol
- Number of project officers trained

**Topic:** Environmental emergency response plan

**Issue**

Environmental emergencies are the responsibility of the Government of Canada and the Government of Quebec, based on their respective areas of jurisdiction. Spills associated with activities under federal jurisdiction, such as the release of pollutants by ships, planes or trains (national railways), or spills affecting federal lands are generally handled by the federal authorities concerned, acting as the regulating agency. In such cases, environmental monitoring is administered with the support of Environment Canada. Depending on the scale of a given event, Environment Canada and the ministère de l'Environnement du Québec may work in cooperation.

An environmental emergency can pose a threat to persons and the environment, as well as to facilities located both inside and outside the federal site concerned. Preventive measures are needed to avoid environmental emergencies or to attenuate their effects.

Based on the nature of the incident, an emergency response plan must also take into account regulations, guidelines, codes of practice, handbooks and other federal and provincial documents which may recommend or require that immediate notice or reports be submitted to the relevant authorities.

Responsibility to intervene in an emergency first lies with the person or organization responsible for the site where the emergency has occurred, followed by the successive levels of government, based on the resources, expertise or mandates that may be required or involved.

Mandatory provisions require that all accidental spills of toxic substances identified in Appendix I of the CEPA (PCBs, ODS, asbestos, mercury, etc.) be reported to Environment Canada. Any release of these substances into the environment must be reported by the persons who have knowledge of the incident. Failure to provide such notification may constitute a violation. Spills resulting from the transport of contaminants must be reported to Transport Canada.

Contaminant spills affecting fish habitats must be reported to the Department of Fisheries and Oceans, as well as to Environment Canada, which administers section 36.

When contaminants are released into the environment, the federal government must inform the ministère de l'Environnement du Québec without delay.



**Topic:** Environmental emergency response plan

**Compliance**

*Please note: The legislation presented here is not exhaustive. Where discrepancies arise between the contents of this guide and any legislative text cited or referred to, the legislative text shall prevail. For questions relating to the applicability of legal requirements, please consult your legal adviser.*

**Federal government**

⇒ *Canadian Environmental Protection Act*, R.S.C. (1985), c. 16 (4<sup>th</sup> suppl.)

⇒ *Transportation of Dangerous Goods Act 1992*, S.C. 1992, c. 34

⇒ *Fisheries Act*, R.S.C. (1985), c. F-14

**Provincial government**

⇒ *Environment Quality Act*, L.R.Q., c. Q-2

**References**

A Survey of Chemical Spill Countermeasures (Environment Canada, 1986, SPE 9/SP/2).

Dangerous Goods: Guide to Initial Emergency Response (CANUTEC, 1992).

Detection, Prevention and Remediation of Leaks from Underground Storage Tanks (EPS, 1989).

Emergency Planning for Industry, (Canadian Standards Association, Standard CAN/CSA-Z731-95).

Guide for the Management of Hazardous Materials and Waste at Federal Facilities in Quebec (Environment Canada, 1998).

Manual for Spills of Hazardous Materials (Environment Canada, 1985).

Risk Analysis Requirements and Guidelines, Quality Management, National Standard of Canada, (Canadian Standards Association, 1993, Standard CAN/CSA-Q634-91).

**Topic:** Environmental emergency response plan

**Responsible authority – topic:** Environmental coordinator

**Year:** 2000

**Current status**

The Hospital has established an emergency response plan, which is administered by the Administrative Services Directorate. From an environmental standpoint, however, the plan does not deal with evacuations in case of hazardous substance spills. There are several environmental guidelines of minor scope. These should be grouped together and employees should be made aware of them.

A more comprehensive environmental emergency response plan should be developed and integrated into the general emergency response plan. It should include protocols for the containment of hazardous materials and waste, a protocol for dealing with oil spills, as well as employee training in the use of containment equipment.

**Topic:** Environmental emergency response plan

**GOAL**

Prevent pollution associated with the operation of Hospital facilities.

**OBJECTIVE**

Reduce the risk of environmental contamination.

**TARGET (Ste. Anne's Hospital)**

Establish an environmental emergency response plan.

**ACTION PLAN**

1. Draw up a list of environmental risks at the Hospital.
2. Group together existing environmental guidelines.
3. Draft an emergency response plan.
4. Purchase containment equipment.
5. Train commissioners and employees responsible for the plan and equipment.

**RESOURCES (\$)**

Preparation of plan and training: \$15, 000

Purchase of equipment: \$5,000

**SCHEDULE TARGET**

December 2001

**RESPONSIBLE AUTHORITY**

Environmental coordinator

**PERFORMANCE MEASURES**

A drafted plan

Equipment purchased

Number of persons trained

## **Chapter 3**

### **Delegation of authority**

The successful implementation of an EMS depends on the degree of responsibility employees assume toward it. An EMS will be effective if employees have a detailed understanding of their new duties and responsibilities. This chapter is intended as a guide to inform employees about their various duties and responsibilities, as well as a reference guide for quick identification of those responsible for the various topics.

Like the various environmental topics and aspects, an EMS must have its own responsible authority. An environmental coordinator should be designated to attend to environment-related duties on a full-time basis, so that activities can be monitored more closely. The coordinator will also act as the contact person to whom any new regulations are transmitted.

All managers must be in responsible for the realisation of the EMS, beside they are not in charge of a specific target or topic, because they have a power decision at the Hospital. They must be include in all implementation steps.

### Delegation of authority – environmental topics, aspects and targets

Date: 2000

<b>Topics – Aspects - Targets</b>	<b>Title</b>	<b>Contact</b>	<b>Telephone</b>
<b>Environmental policy</b>	Environmental coordinator	Alain Faucher	
<i>Target no. 1</i>	Senior management		
	Environmental committee		
<b>Procurement</b>	Purchaser, material operations	Eugène Thauvette	
<i>Target no. 1</i>	Headquarters		
	Environmental coordinator	Alain Faucher	
<i>Target no. 2</i>	Human resources		
<i>Target no. 3</i>	Purchaser, material operations	Eugène Thauvette	
<b>Waste management</b>	Sanitation supervisor	Luc Léger	
	Manager, sanitation department	Michel Jacques	
	Manager, technical department	Daniel Boisvert	
<u>Solid waste</u>	Sanitation supervisor	Luc Léger	
<i>Target no. 1</i>	Supervisor , medical storeroom and stationary supplies	Denis Daoust	
<i>Target no. 2</i>	Administrative assistant, sanitation	Josée Meloche	
	Sanitation supervisor	Luc Léger	
<i>Target no. 3</i>	Administrative assistant, sanitation	Josée Meloche	
	Sanitation supervisor	Luc Léger	
<u>Construction waste</u>	Sanitation supervisor	Luc Léger	
<i>Target no. 1</i>	Administrative assistant, sanitation	Josée Meloche	
	Sanitation supervisor	Luc Léger	
<i>Target no. 2</i>	Civil design technologist	Alain Faucher	
	Project officers		
<u>Hazardous waste</u>	Sanitation supervisor	Luc Léger	
<i>Target no. 1</i>	Mechanical technician	Gilles Perry	
<i>Target no. 2</i>	Sanitation supervisor	Luc Léger	
<i>Target no. 3</i>	Supervisor sanitation	Luc Léger	
<u>PCBs</u>	Mechanical technician	Gilles Perry	
<i>Target no. 1</i>	Master electrician	Sylvain Bernier	
	Mechanical technician	Gilles Perry	
<u>Biomedical waste</u>	Sanitation supervisor	Luc Léger	
<i>Target no. 1</i>	Administrative assistant, sanitation	Josée Meloche	
	Sanitation supervisor	Luc Léger	
<b>Water use</b>	Civil design technologist	Alain Faucher	
	Manager, technical services	Daniel Boisvert	
<u>Drinking water</u>	Civil design technologist	Alain Faucher	
<i>Target no. 1</i>	Civil design technologist	Alain Faucher	
<u>Wastewater</u>	Civil design technologist	Alain Faucher	

<i>Target no. 1</i>	Civil design technologist	Alain Faucher	
<i>Target no. 2</i>	Civil design technologist	Alain Faucher	

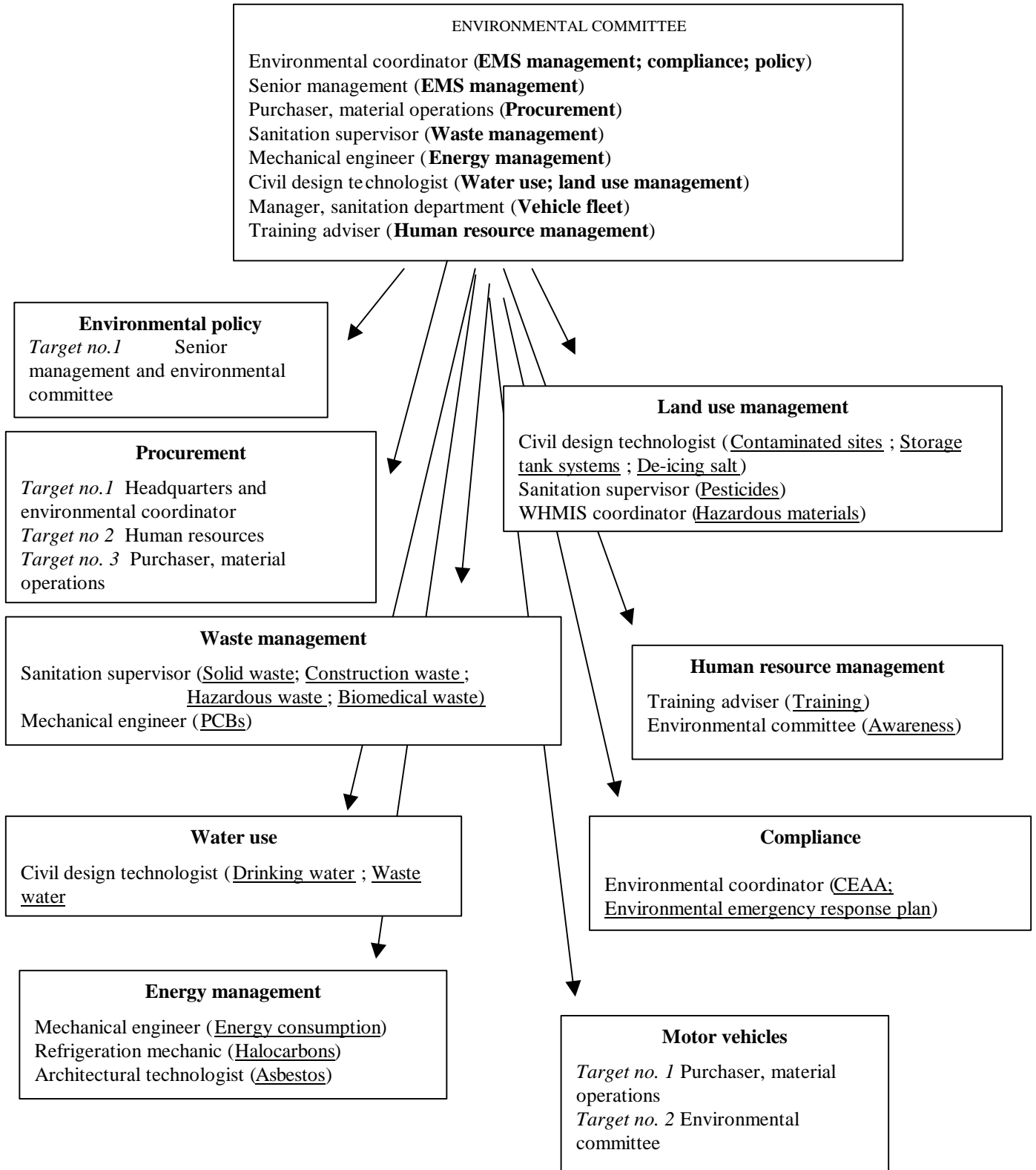
PRELIMINARY FINAL VERSION

<b>Topics – Aspects – Targets</b>	<b>Title</b>	<b>Contact</b>	<b>Telephone</b>
<b>Energy management</b>	Mechanical engineer	To be determined	
	Manager, technical services	Daniel Boisvert	
<u>Energy consumption</u>	Mechanical engineer	To be determined	
<i>Target no. 1</i>	Mechanical technician	Gilles Perry	
<i>Target no. 2</i>	Mechanical engineer	To be determined	
<u>Halocarbons</u>	Refrigeration mechanic	Réal Thiffault	
<i>Target no. 1</i>	Refrigeration mechanic	Réal Thiffault	
<i>Target no. 2</i>	Mechanical technician	Gilles Perry	
<i>Target no. 3</i>	Mechanical technician	Gilles Perry	
<u>Asbestos</u>	Architectural technologist	Marc Lecavalier	
<i>Target no. 1</i>	Architectural technologist	Marc Lecavalier	
<i>Target no. 2</i>	Architectural technologist	Marc Lecavalier	
<b>Vehicle fleet</b>	Manager, sanitation department	Michel Jacques	
<i>Target no. 1</i>	Purchaser, material operations	Eugène Thauvette	
<i>Target no. 2</i>	Environmental committee		
<b>Land use management</b>	Civil design technologist	Alain Faucher	
	Manager, sanitation department	Michel Jacques	
	Manager, technical services	Daniel Boisvert	
<u>Contaminated sites</u>	Civil design technologist	Alain Faucher	
<i>Target no. 1</i>	Civil design technologist	Alain Faucher	
<i>Target no. 2</i>	Civil design technologist	Alain Faucher	
<u>Storage tank systems</u>	Civil design technologist	Alain Faucher	
<i>Target no. 1</i>	Civil design technologist	Alain Faucher	
<i>Target no. 2</i>	Civil design technologist	Alain Faucher	
<i>Target no. 3</i>	Civil design technologist	Alain Faucher	
<u>Pesticides</u>	Sanitation supervisor	Luc Léger	
<u>De-icing salt</u>	Civil design technologist	Alain Faucher	
<i>Target no. 1</i>	Civil design technologist	Alain Faucher	
<i>Target no. 2</i>	Civil design technologist	Alain Faucher	
<u>Hazardous materials</u>	WHMIS coordinator	Danielle Lefebvre	
<i>Target no. 1</i>	WHMIS coordinator	Danielle Lefebvre	
<i>Target no. 2</i>	WHMIS coordinator	Danielle Lefebvre	
<i>Target no. 3</i>	Headquarters		
	Environmental coordinator	Alain Faucher	
<b>Human resource management</b>	Training adviser	Jocelyne Parent	
<u>Training</u>	Training adviser	Jocelyne Parent	
<i>Target no. 1</i>	Environmental coordinator	Alain Faucher	
<u>Awareness</u>	Environmental committee		
<i>Target no. 1</i>	Environmental coordinator	Alain Faucher	
	Headquarters		
<i>Target no. 2</i>	Environmental committee		
<b>Compliance</b>	Environmental coordinator	Alain Faucher	
<u>CEAA</u>	Environmental coordinator	Alain Faucher	
<i>Target no. 1</i>	Environmental coordinator	Alain Faucher	
<u>Environmental emergency response plan</u>	Environmental coordinator	Alain Faucher	

<i>Target no. 1</i>	Environmental coordinator	Alain Faucher	
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**Figure 1. Organization chart - delegation of authority – environmental topics and aspects**



**Organization chart - delegation of authority – environmental targets and aspects**

**Environmental policy**  
 Senior management and Environment committee  
*(Target no. 1)*

**Procurement**  
 Headquarters and environmental committee *(Target no. 1)*  
 Human resources *(Target no. 2)*  
 Purchaser, material operations *(Target no. 3)*

**Solid waste**  
 Supervisor medical storeroom/stationary supplies  
*(Target no. 1)*  
 Sanitation supervisor *(Targets 2, 3)*  
 Admin. assistant, sanitation *(Targets 2 and 3)*

**Construction waste**  
 Admin. assistant, sanitation *(Target no. 1)*  
 Sanitation supervisor *(Target no. 1)*  
 Civil design technologist *(Target no. 2)*  
 Project officers *(Target no. 2)*

**Hazardous waste**  
 Sanitation supervisor *(Targets 2, 3)*  
 Mechanical technician *(Target no. 1)*

**PCBs**  
 Master electrician *(Target no. 1)*  
 Mech. technician *(Target no. 1)*

**Biomedical waste**  
 Admin. assistant, sanitation *(Target no. 1)*  
 Sanitation supervisor *(Target no. 1)*

**Water management**

**Drinking water**  
 Civil design technologist *(Targets 1.2)*

**Waste water**  
 Civil design technologist *(Target)*

**Water management**

**Energy consumption**  
 Mechanical engineer *(Target no. 1)*

**Halocarbons**  
 Refrigeration mechanic *(Target no. 1)*  
 Mechanical technician *(Targets 2, 3)*

**Asbestos**  
 Architectural technologist *(Targets 1, 2)*

**Energy management**

**Vehicle fleet**

**Functional organization chart – designated positions**Environmental coordinator (*new position*)

DESCRIPTION	RESPONSE
General	<ul style="list-style-type: none"> <li>➤ Chair the environmental committee (<i>new task</i>)</li> <li>➤ Act as a liaison officer with senior management (<i>new task</i>)</li> <li>➤ Assist in coordinating the implementation of the action plans (<i>new task</i>)</li> <li>➤ Oversee follow-up for the following topics: Environmental policy, Environmental assessment, Environmental emergency response plan</li> </ul>
Environmental policy	<ul style="list-style-type: none"> <li>➤ Complete environmental record (<i>new task</i>)</li> </ul>
Procurement	<ul style="list-style-type: none"> <li>➤ Follow-up with Headquarters with respect to progress being made</li> <li>➤ Complete environmental record no. 2 with respect to the preceding</li> </ul>
Hazardous substances	<ul style="list-style-type: none"> <li>➤ Follow-up with Headquarters with respect to progress being made on hazardous substances (<i>new task</i>)</li> <li>➤ Complete environmental record no. 5 with respect to the preceding</li> </ul>
Training	<ul style="list-style-type: none"> <li>➤ Ensure that all employees receive training that will enable them to meet various environmental aspects and targets</li> </ul>
Awareness	<ul style="list-style-type: none"> <li>➤ Follow-up with Headquarters with respect to progress being made</li> <li>➤ Complete environmental record no. 2 with respect to the preceding</li> </ul>
CEAA	<ul style="list-style-type: none"> <li>➤ Establish an environmental assessment protocol (<i>new task</i>)</li> <li>➤ Complete environmental record (<i>new task</i>)</li> <li>➤ Initiate environmental assessments (<i>new task</i>)</li> </ul>
Environmental emergency response plan	<ul style="list-style-type: none"> <li>➤ Establish an environmental emergency response plan (<i>new task</i>)</li> <li>➤ Complete environmental record (<i>new task</i>)</li> </ul>

Senior management

DESCRIPTION	RESPONSE
General	<ul style="list-style-type: none"> <li>➤ Attend environmental committee meetings (<i>new task</i>)</li> <li>➤ Monitor progress on EMS (<i>new task</i>)</li> </ul>
Environmental policy	<ul style="list-style-type: none"> <li>➤ Update environmental policy on a yearly basis (<i>new task</i>)</li> </ul>

## Environmental committee

DESCRIPTION	RESPONSE
General	<ul style="list-style-type: none"> <li>➤ Monitor completion status of the EMS and action plans (<i>new task</i>)</li> <li>➤ Oversee follow-up on the Awareness aspect and complete the ap</li> </ul>
Environmental policy	<ul style="list-style-type: none"> <li>➤ Update environmental policy on a yearly basis (<i>new task</i>)</li> </ul>
Vehicle fleet	<ul style="list-style-type: none"> <li>➤ Conduct feasibility study on employee ride-sharing (<i>new task</i>)</li> <li>➤ Complete environmental record no. 2 with respect to the preced</li> </ul>

## Purchaser, material operations

DESCRIPTION	RESPONSE
General	<ul style="list-style-type: none"> <li>➤ Monitor follow-up on the topic Procurement (<i>new task</i>)</li> <li>➤ Sit on environmental committee (<i>new task</i>)</li> </ul>
Procurement	<ul style="list-style-type: none"> <li>➤ Evaluate regular purchases which could be replaced by green pu</li> <li>➤ Complete environmental record no. 1 (<i>new task</i>)</li> </ul>
Vehicle fleet	<ul style="list-style-type: none"> <li>➤ Look into the possibility of purchasing an alternative fuel vehicle</li> </ul>

## Headquarters

DESCRIPTION	RESPONSE
Procurement	➤ Develop reference document concerning green procurement practice coordinator
Hazardous materials	➤ Develop protocol regarding the adoption of economical alternative environmental coordinator
Awareness	➤ Develop environmental orientation package for employees and c

## Training adviser / Human resources

DESCRIPTION	RESPONSE
General	<ul style="list-style-type: none"> <li>➤ Oversee follow up on the topic Human resource management (<i>new task</i>)</li> <li>➤ Oversee follow up on the aspect Training and complete environment</li> <li>➤ Sit on environmental committee (<i>new task</i>)</li> </ul>
Procurement	➤ Oversee training in green procurement for purchasing personnel

## Sanitation supervisor

DESCRIPTION	RESPONSE
General	<ul style="list-style-type: none"> <li>➤ Sit on environmental committee</li> <li>➤ Oversee the topic Waste management</li> <li>➤ Oversee the aspects Solid waste, Construction waste, Hazardous waste</li> </ul>
Solid waste, Construction waste, Hazardous waste, Biomedical waste	<ul style="list-style-type: none"> <li>➤ Manage data compilation system</li> <li>➤ Complete environmental records 2 to 5 with respect to the topic</li> </ul>
Solid waste	➤ Evaluate potential improvements to the recycling programs in o
Hazardous waste	➤ Register Hospital in the annual PWGSC hazardous waste recovery
Pesticides	➤ Ensure that all material safety data sheets are readily available at

Administrative assistant, sanitation

DESCRIPTION	RESPONSE
Solid waste, Construction waste, Hazardous waste, Biomedical waste	<ul style="list-style-type: none"> <li>➤ Enter data as invoices are received</li> <li>➤ Complete environmental records 2 to 5 with respect to the topic</li> </ul>

Supervisor, medical storeroom and stationary supplies

DESCRIPTION	RESPONSE
Solid waste	<ul style="list-style-type: none"> <li>➤ Modify printers and photocopiers</li> <li>➤ Complete environmental record no. 1 with respect to the topic V</li> </ul>

Civil design technologist

DESCRIPTION	RESPONSE
General	<ul style="list-style-type: none"> <li>➤ Sit on environmental committee</li> <li>➤ Oversee follow up on the topics Water use, Land use management</li> <li>➤ Oversee follow up on the aspects Drinking water, Wastewater, C</li> </ul>
Construction waste	<ul style="list-style-type: none"> <li>➤ Oversee addition of waste recovery to the construction specifica</li> </ul>
Drinking water	<ul style="list-style-type: none"> <li>➤ Follow up on the installation of new water meters and economiz</li> <li>➤ Complete environmental records (<i>new task</i>)</li> </ul>
Waste water	<ul style="list-style-type: none"> <li>➤ Follow up on installation of water sampling stations and impleme</li> <li>➤ Compile sampling station data (<i>new task</i>)</li> <li>➤ Complete environmental records (<i>new task</i>)</li> </ul>
Contaminated sites	<ul style="list-style-type: none"> <li>➤ Establish an inventory of contaminated sites and oversee follow</li> <li>➤ Complete environmental record (<i>new task</i>)</li> </ul>
Storage tank systems	<ul style="list-style-type: none"> <li>➤ Manage storage tank system register (<i>new task</i>)</li> <li>➤ Oversee the elimination of old storage tanks (<i>new task</i>)</li> <li>➤ Oversee the upgrading of storage tanks (<i>new task</i>)</li> <li>➤ Complete environmental record (<i>new task</i>)</li> </ul>
De-icing	<ul style="list-style-type: none"> <li>➤ Oversee study to reduce the use of deicing salts by contractors</li> <li>➤ Manage the register used to monitor the use of de-icing salt (<i>new</i></li> </ul>

	➤ Complete environmental record ( <i>new task</i> )
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## Project officers

DESCRIPTION	RESPONSE
Construction waste	➤ Follow up on waste recovery clause added to construction spec

## Mechanical technician

DESCRIPTION	RESPONSE
General	➤ Oversee follow-up on the aspect PCBs
Hazardous waste	➤ Manage used-oil register and dispose of used oil on a regular basis
PCBs	➤ Manage PCB register and dispose of PCBs on a regular basis ➤ Complete environmental record ( <i>new task</i> )
Halocarbons	➤ Update inventory of halocarbon-consuming equipment ( <i>new task</i> ) ➤ Oversee disposal of obsolete or out-of-service equipment ( <i>new task</i> )

Mechanical engineer (*new task*)

DESCRIPTION	RESPONSE
General	➤ Sit on environmental committee ( <i>new task</i> ) ➤ Oversee follow-up on the topic Energy management ➤ Oversee follow-up on the aspect Energy consumption
Drinking water	➤ Monitor recording of meter readings
Energy consumption	➤ Oversee energy-use data compilation system ➤ Complete environmental record ( <i>new task</i> )

## Master electrician

DESCRIPTION	RESPONSE
PCBs	<ul style="list-style-type: none"> <li>➤ Maintain an up-to-date register of PCBs</li> <li>➤ Complete environmental record (<i>new task</i>)</li> </ul>

## Refrigeration mechanic

DESCRIPTION	RESPONSE
General	➤ Responsible for monitoring the aspect Halocarbons
Halocarbons	<ul style="list-style-type: none"> <li>➤ Responsible for ensuring compliance with legislation dealing with</li> <li>➤ Complete environmental record (<i>new task</i>)</li> </ul>

## Architectural technologist

DESCRIPTION	RESPONSE
General	➤ Responsible for monitoring the aspect Asbestos
Asbestos	<ul style="list-style-type: none"> <li>➤ Implement asbestos management plan</li> <li>➤ Oversee the elimination of asbestos</li> <li>➤ Complete environmental record (<i>new task</i>)</li> </ul>

## Manager, sanitation department

DESCRIPTION	RESPONSE
General	<ul style="list-style-type: none"> <li>➤ Sit on environmental committee (<i>new task</i>)</li> <li>➤ Responsible for monitoring the topic Vehicle fleet management</li> <li>➤ Oversee the topics waste management, vehicle fleet management</li> </ul>
Vehicle fleet management	➤ Complete environmental record no. 1 ( <i>new task</i> )



## WHMIS coordinator

DESCRIPTION	RESPONSIBILITIES
General	➤ Oversee follow-up on the aspect Hazardous materials
Hazardous materials	<ul style="list-style-type: none"> <li>➤ Oversee product movement register</li> <li>➤ Keep an up-to-date inventory and enter data</li> <li>➤ Complete environmental record (<i>new task</i>)</li> </ul>

## Manager, technical services

DESCRIPTION	RESPONSIBILITIES
General	<ul style="list-style-type: none"> <li>➤ Responsible for monitoring the management of environmental as</li> <li>➤ Serve as a liaison between the technical services directorate and</li> </ul>

PRELIMINARY FINAL VERSION

FEBRUARY 2001

## **Chapter 4**

# **Environmental committee and Management review**

### **Environmental committee**

The theme of continuous improvement should be an integral component of the EMS. Activities and services should be continually evaluated in order to identify ways in which the EMS as a whole can be improved. This will require the creation of an environmental committee, comprised of the persons responsible for the various topics, a member of management staff and the environmental coordinator. Meetings should be held on a regular basis to review the progress being made in achieving the targets for the various aspects. Those responsible for the various topics will be able to use environmental records from the register. Recordings of the proceedings will be integrated into the register.

An annual statement of achievements will be drafted prior to the annual management review. This statement will include:

- a review of responsibilities and tasks
- the completion status of targets and objectives
- policy recommendations, new environmental aspects
- a copy of the report to be submitted to Veterans Affairs Headquarters.

### **Annual management review**

Management and the environmental coordinator should review the EMS on a regular basis to ensure that the system will remain appropriate and effective. This review should be broad enough to encompass every environmental facet of the organization's activities and services, including their impact on financial performance. The review shall include:

- a presentation of the report to be submitted to Veterans Affairs Headquarters;
- amendments to the environmental policy, based on the suggestions of the environmental committee; and
- the amounts budgeted for the various environmental targets.

**Implementation schedule**

DATE	TARGETS
December 2000 (i.e. required immediately as a result of legislation)	<ul style="list-style-type: none"> <li>- Halocarbons: target no. 1</li> <li>- Storage tanks: targets 1 and 3</li> <li>- CEAA: target no. 1</li> </ul>
Yearly	<ul style="list-style-type: none"> <li>- Environmental policy: target no. 1</li> </ul>
For each purchase	<ul style="list-style-type: none"> <li>- Vehicle fleet: target no. 1</li> </ul>
March 2001	<ul style="list-style-type: none"> <li>- Hazardous waste: target no.3</li> <li>- Pesticides: target no. 1</li> </ul>
October 2001	<ul style="list-style-type: none"> <li>- Procurement: target no. 1</li> <li>- Awareness: target no. 1</li> </ul>
December 2001	<ul style="list-style-type: none"> <li>- Solid waste: target no. 2</li> <li>- Construction waste: target no. 1</li> <li>- Hazardous waste: targets 1 and 2</li> <li>- PCBs: target no. 1</li> <li>- Biomedical waste: target no. 1</li> <li>- Asbestos: target no. 1</li> <li>- Contaminated sites: target no. 1</li> <li>- De-icing salt: target no. 1</li> <li>- Hazardous materials: targets 1 and 2</li> <li>- Training: target no. 1</li> <li>- Awareness: target no. 2</li> <li>- Env. emergency response plan: target no. 1</li> </ul>
March 2002	<ul style="list-style-type: none"> <li>- Solid waste: target no. 1</li> <li>- Construction waste: target no. 2</li> <li>- Drinking water: target no. 1</li> <li>- Wastewater: target no. 1</li> <li>- Energy consumption: target no. 1</li> <li>- Halocarbons: target no. 3</li> <li>- Vehicle fleet: target no. 2</li> </ul>
April 2002	<ul style="list-style-type: none"> <li>- Hazardous materials: target no. 3</li> </ul>
December 2002	<ul style="list-style-type: none"> <li>- Wastewater: target no. 2</li> <li>- Storage tanks: target no. 2</li> </ul>
March 2003	<ul style="list-style-type: none"> <li>- De-icing salt: target no. 2</li> </ul>
March 2004	<ul style="list-style-type: none"> <li>- Procurement: targets 2 and 3</li> <li>- Solid waste: target no. 3</li> <li>- Asbestos: target no. 2</li> </ul>
March 2005	<ul style="list-style-type: none"> <li>- Halocarbons: target no. 2</li> <li>- Contaminated sites: target no. 2</li> </ul>

PRELIMINARY FINAL VERSION

**EMS-related investments**

Included in the Hospital's internal management budget	Included in EMS implementation	To be included in major renovation plan	Known
Environmental policy	Solid waste: target no. 2	Wastewater: targets 1 and 2	Procurement: target 15% of current purchase costs
Procurement: targets 1 and 2	Construction waste: target no. 1	Energy consumption: target no. 1	Solid waste: target \$20,000 plus \$15 per person
Solid waste: target no. 1	Hazardous waste: target no. 2	Halocarbons: target no. 3	Storage tank system target no. 3 - \$50
Construction waste: target no. 2	PCBs: target no. 1	Storage tank systems: target no. 2	CEAA: target no. \$10,000
Hazardous waste: targets 1 and 3	Biomedical waste: target no. 1		Env. emergency response plan target no. 1 - \$20,000
Drinking water: target no. 2	Halocarbons: target no. 1 for changes		
Halocarbons: target no. 1 (training: no. 2)	Asbestos: target no. 1 for register		
Asbestos: target no. 1 (identification)	Contaminated sites: target no. 1		
Storage tanks: target no. 1	De-icing salt: target no. 1		
De-icing salt: target no. 2	Hazardous materials: targets 1, 2		
Hazardous substances: target no. 3	Training target no. 1		
Awareness: targets 1 and 2			
Pesticides: target no. 1			

FEBRUARY 2001