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TABLE RONDE NATIONALE SUR L'ENVIRONNEMENT ET L'ÉCONOMIE

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National Round Table
on the Environment
and the Economy

Table ronde nationale
sur l'environnement
et l'économie

Summary Report

Development of Criteria for Green Procurement

March 1996

Ottawa

Prepared by
The Delphi Group
for the NRTEE

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Aussi disponible en français

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National Round Table on the Environment and the Economy (NRTEE)

1 Nicholas Street, Suite 1500
Ottawa, Ontario
Canada, K1N 7B7
Tel: (613) 992-7189
Fax: (613) 992-7385
E-mail: nrtee@web.apc.org

Development of Criteria for Green Procurement

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The Delphi Group
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Table of Contents

Executive Summary

This report highlights the challenges and the potential opportunities of advancing sustainable development through the public sector's green purchasing activities. As a major purchaser of goods and services in Canada, the federal government plays a leading role in defining and implementing environmentally sound procurement practices, or "green procurement." Current and future federal green purchasing practices therefore have significant economic and environmental implications.

Recognizing the government's desire to adopt effective green procurement practices, the National Round Table on the Environment and the Economy's (NRTEE) Task Force on Green Procurement commissioned this report to assist federal buyers and sellers of products and services to overcome barriers and obstacles to the further greening of procurement. The report therefore has a dual function. The first part provides an in-depth analysis of green procurement activities, approaches and criteria currently being used in both the public and private sectors, both nationally and internationally. Leading initiatives are underscored through case studies. Recommendations and opportunities for strengthening green procurement activities are provided. The second part of this report offers a set of criteria for green procurement for a variety of products and services that can be incorporated into government purchasing policies and guidelines. The criteria are also intended for provincial and municipal governments and may serve as a guideline for private sector organizations.

The views expressed in this report are those of the authors alone and do not necessarily reflect the positions of their respective organizations, NRTEE or the Government of Canada. Rather they represent an intellectual contribution, from a diverse group of experts, to the important deliberations on green procurement and sustainable development.

Members of the Federal Green Procurement Task Force

Chair
Marty Eakins
Partner
KPMG Peat Marwick Thorne
Hamilton, Ontario

Co-Chair
Elizabeth Crocker
Co-Owner
P'lovers
Halifax, Nova Scotia

David Anderson
Chief Executive Director
Alberta School Boards Association
Edmonton, Alberta

Robert Bickerdike
Associate Director
Environment Division
Bell Canada
Montréal, Québec

Patrick Carson
Vice-President
Environmental Affairs
Loblaw Companies Ltd.
Toronto, Ontario

Colin Isaacs
Environmental Program Consultant
Contemporary Information Analysis Limited
Stoney Creek, Ontario

Sheldon Levitt
Quadrangle Architects Ltd.
Toronto, Ontario

Bob Slattery
Purchasing Consultant
Ottawa, Ontario

Laura Talbot-Allan
Assistant Deputy Minister
Corporate Services
Environment Canada
Hull, Québec

Secretariat

Gene Nyberg
Corporate Secretary and
Acting Executive Director
NRTEE
Ottawa, Ontario

David Morgan
Policy Advisor
NRTEE
Ottawa, Ontario

Chapter 1

THE CURRENT STATE OF GREEN PROCUREMENT

INTRODUCTION

Many organizations worldwide are making an effort to purchase products and services that are less harmful to local and global environments. This new emphasis on environmentally sound purchasing, or "green procurement", is part of a broader movement towards more sustainable practices and is especially pronounced in the public sector. Governments are responding to increasing expectations that they use their influence and buying power to play a leadership role in defining and implementing green procurement.

The benefits of green procurement are far-reaching:

- Savings from the application of the 3Rs — reduce, reuse and recycle;
- Savings through cost avoidance — lower waste management fees, lower hazardous materials management fees, and reduced spending on pollution prevention;
- Savings from conserving energy, water and fuel resources;
- Easier compliance with environmental regulations and demonstration of diligence;
- Reduced risk of accidents; and
- Improved community health through cleaner air and water, less demand for landfill and less demand for resources.

As one of the largest single purchasers of goods and services in Canada, the public sector can set the stage for green procurement and boost significantly the market for "greener" goods and services. This potential is recognized in The Canadian Environmental Industry Strategy, launched in 1994, which states that "the federal government is the nation's largest commercial landlord and purchases more than $9 billion annually." The strategy emphasizes that the federal government "acts as a strong lever for remediation and restoration work and offers significant opportunities to help develop Canada's domestic market for environmental goods and services."

Other jurisdictions share this view and are taking steps to promote green procurement. In the United States, President Bill Clinton signed an Executive Order in April 1993 requiring all federal agencies to purchase, where commercially available, computers, printers and monitors certified under Energy Star, a certification program of the U.S. Environmental Protection Agency that addresses computer and office equipment. As of January 1995, over 2,000 products were endorsed under Energy Star for conserving energy.

The challenge

Green procurement is still in the formative stages although it is practised in all sectors. The lack of common criteria to identify, compare and specify "green" products and services is slowing progress. Without recognized guidelines, most purchasers do not feel competent to switch to greener purchasing habits. Most public sector organizations at the local, provincial/state, national and international level have struggled over one to ten years to define and implement "greener" purchasing.

This quest has proven to be a formidable challenge. In order to purchase or even specify environmentally preferred products and services, organizations must decide what makes a product "green", or at least "greener" than its competitors. To asses the full environmental impact of any product, all stages of the life cycle — production, use and disposal — must be considered. This can typically involve dozens of measurements. In many cases, there is scientific uncertainty about these impacts.

Few organizations, let alone individual purchasers, have the resources or skills to make such evaluations. Many seek guidance from other sources, such as third-party "eco-labelling" organizations, which test and certify products, services and suppliers under their criteria.

Meeting the challenge: Task Force objectives

To address these challenges, the Task Force on Green Procurement for the National Round Table on the Environment and the Economy initiated this study. It is spurred by the conviction of the Task Force that fundamental changes are needed in the way goods and services are produced, delivered and consumed in order to achieve genuine sustainable development. The principal goal of this study is to develop a clear set of criteria to identify green products and services that can be incorporated into federal government purchasing policies, guidelines and bid documents. The criteria are also intended for provincial and municipal governments and may serve as a guideline for private sector organizations.

This project was divided into two phases. In Phase I, the Task Force investigated the level and nature of green procurement in the public and private sectors throughout North America and internationally. The objectives were: to survey approaches to green procurement, to create an inventory of existing criteria, and to develop a framework for assessing and comparing key "green" criteria. In Phase II, the Task Force used the inventory and results of stage one as a base to develop criteria useful to government and industry, and to provide further recommendations and future directions to promote green procurement.

This report conveys the findings and conclusions of Phases I and II. Included are leading initiatives through case studies, and tools for action: a set of criteria for green procurement for a variety of product and service areas.

Research method

The information in this report was gathered through interviews conducted between April 1 and May 15, 1995, and from various documents, reports, electronic database searches and other information sources. The Project Team examined procurement operations in 50 Canadian public organizations (20 federal government departments, 18 Crown corporations (all levels) and 12 provincial and territorial departments or ministries), more than 20 U.S. public agencies, several foreign governments and agencies, some 35 private sector companies and more than a dozen non-governmental organizations (NGOs). A list of contacts is provided in Appendix A.

The Project Team chose to conduct oral interviews rather than written surveys because of the higher response rate and time constraints. Questions were similar for each contact and were only slightly adapted to suit the type of organization (i.e. public or private, certification body, NGO). Typical questions were as follows:

1. Has your organization implemented some form of green/environmental purchasing policy, program or practices?
2. If yes, describe the approach your organization is taking; the type or range of products/services you have focused on; the criteria you are using to assess and compare products/services; and any "green" specifications you have developed.
3. How have you implemented your green purchasing criteria?
4. How did you set these criteria?

Respondents were asked to send copies of all available written material on their policies, programs, practices, criteria and specifications.

It was unexpectedly difficult to obtain tangible, printed information on green procurement, not to mention actual criteria, from all sectors. The private sector was very reluctant to share its procurement trade secrets with others. Nevertheless, companies were eager to send information about environmentally responsible product design, environmental policy statements, annual reports and environmental fact sheets. A summary of the organizations contacted and their response can be found in Appendix B.

Advisory Group

An advisory group of the following prominent Canadians working in the area of green procurement was enlisted to provide feedback on the report:

- Lou Pagano, City of Toronto and G.I.P.P.E.R. (Governments Incorporating Procurement Policies to Eliminate Refuse)

- Ahmed Husseini, Canadian Standards Association
- Kasia Introwski, Build Green Program
- Michael Calvert, Office of Federal Environmental Stewardship, Environment Canada
- Kevin Gallagher, Environmental Choice Program
- Charles Whitlock, Regional Municipality of Waterloo
- Wendy Cook, Canadian Buy-Recycled Alliance
- Gayle McCaskill, CIBC
- Sheila Finn, Creative Purchasing Solutions Inc.

FINDINGS ON EXISTING APPROACHES AND CRITERIA

An Overview

The approaches to green procurement in all sectors are almost as varied as the number of organizations trying to implement this new concept. At the same time, practitioners are still grappling with definitions of "green", criteria and verification. Further obstacles are higher costs of preferred products, a limited selection of suppliers and products in some categories and the absence of strong policy direction and support either from within the organization or from political leaders. Although this makes it difficult to generalize about the current state of green procurement, the following conclusions can be drawn:

- Some organizations use very general criteria to influence and educate buyers and suppliers; others focus on specific concerns and have developed precise, technical criteria and even specifications.
- General (or generic) criteria on environmental qualities or sustainability are used more often than detailed product- or sector-specific criteria, because they are easier to assess and verify.
- The range of criteria being used is vast and the depth of analysis, quality and degree of verification vary greatly.
- Purchasers rarely verify suppliers' claims, owing to lack of time and expertise. Most purchasers feel they do not have adequate training or tools to pursue green procurement.
- Purchasers want an accurate method of verification and/or source of certification for both suppliers and their products and services.
- Purchasers might be ready to endorse programs that assess the environmental impact of the supplier's production process.
- There is a growing trend in the public sector in Canada to decentralize purchasing. This is hindering green procurement and any joint effort to advance standards. It means that many more people need green procurement tools and operating methods.
- Little work has been done to calculate the impact of green procurement on the Canadian economy and industry.
- Organizations in all sectors and countries are struggling with similar challenges, particularly the need to strengthen verification and certification methods.

Before taking a closer look at efforts in each sector, it is worth highlighting the "eco-labelling" certification programs that have grown throughout North America and abroad and their role in green procurement.

ENVIRONMENTAL CERTIFICATION PROGRAMS

A number of countries have implemented "eco-labelling" programs to identify and measure green consumer products and, to a lesser extent, services. Generally, these third-party verification groups establish a series of criteria for a particular sector or product category and test the product or service to determine the degree of compliance. Products or services that meet or exceed the program's minimal standards are awarded a label of approval, usually in the form of an environmental label or logo. Groups that have designed certification programs include companies, government agencies or purchasing associations that have developed their own sources and methods for identifying and verifying green products; and independent groups that have developed and released guides and "green" directories of products and suppliers.

While their goals are similar, eco-labelling programs differ in the range of products or services measured, the range and rigour of criteria used to certify a company's products or services, and success rate.

One of the first of its kind and by far the most ambitious eco-labelling program to date is the German "Blue Angel" program. It measures the most extensive number and type of products and services. Other countries including Canada, Japan and the Nordic Countries have followed with government-run programs, such as Environment Canada's Environmental Choice Program. The United States has both private certification organizations, such as Scientific Certification Systems (formerly Green Cross) and Green Seal, and government-led initiatives through the Environmental Protection Agency (EPA), including Green Lights and Energy Star.

Approaches

A wide variety of eco-labelling criteria are used. The simplest is the "single-criteria", which measures a product against one specific environmental attribute, such as recycled content. This is commonly used throughout the United States. A more complex approach is the "multi-criteria" system, which evaluates a product or service against various environmental impacts. These could include recyclability, energy efficiency, and water consumption. There is another, more complex approach that can be called "multi-criteria/multi-stage", which assesses a full range of environmental impacts for each stage of the product's life, from cradle to grave (e.g. production, distribution, consumption, disposal).

Use of criteria

The multi-criteria/multi-stage system is severely limited by its own complexity. It is resource intensive and although it can yield comprehensive and accurate results, these cannot be usefully compared with other evaluations of products and services. On the other hand, the single criteria approach has been roundly criticized for not being sufficiently rigorous. Too many ordinary products can qualify for an eco label based on one simple attribute (e.g. recyclability).

Most eco-labelling groups opt for the middle ground: some combination of multi-criteria and/or multi-stage assessment.

Effectiveness

Organizations confirm that their major challenge is to be transparent, accurate, rigorous, fair and yet flexible at the same time in order to succeed. To encourage companies to promote and use eco-labelling programs, most groups have slackened the reins, putting more emphasis on fairness, accuracy and flexibility. This has given rise to criticism that eco-labelling programs are catering to the lowest common denominator.

To be effective, eco-labelling needs to be widely used and recognized. This can only be accomplished if purchasers see a greater number of eco label products and services on the market. Most eco-labelling organizations are boosting their number of certified products and services to encourage more companies to match or surpass the initial standard. Once this is achieved, the groups hope to raise the minimum level required following a specified timeframe or after a specified number of suppliers have been certified.

1) Canada's Environmental Choice Program

The Environmental Choice Program (ECP) is a voluntary certification program designed by Environment Canada to create incentives for manufacturers and suppliers to provide greener products or services. ECP establishes performance standards and awards its Environmental Choice seal of approval (EcoLogo^{M}) for products and services that meet or exceed its criteria.

Scientific, technical and industrial experts help to define the criteria that are laid out in ECP's technical guidelines. ECP uses these criteria to set benchmarks for identifying leaders and innovators in a specific market segment.

The guidelines are revised through a review process that considers marketplace changes and emerging new technologies and products.

To qualify for ECP EcoLogo^{M}-certification, a product or service must "demonstrate significant environmental benefit." It must be more energy efficient, have reduced hazardous or toxic by-products, contain recycled material, last longer, be reusable, or have other environmentally responsible attributes. ECP relies on two certification processes: Technical Guidelines and Panel Review.

Technical Guidelines establish the criteria that a product or service should meet and the particular characteristics that make it environmentally safe and acceptable. Many factors are considered before a guideline is finalized. These include the life cycle of the product and pertinent environmental, technical, market and economic conditions. Other parameters include energy consumption, water consumption, air pollution, waste minimization, water effluent, soil contamination and degradation, effects on ecosystems, durability and more. ECP committees review each guideline to ensure that all relevant technical issues have been addressed, the life cycle review remains scientifically valid, and the economic feasibility of meeting the criteria has been taken into account.

The Panel Review allows applicants to seek EcoLogo^{M} certification for products or services for which a technical guideline has not yet been developed. An independent expert panel examines documentation submitted by the applicant and uses environmental and performance criteria to make its recommendation to the ECP.

The life cycle assessment is based on information provided by the applicant. The panel also suggests specific criteria or parameters that may be used. Applicants are asked to describe environmental benefits that occur at any of the following stages: raw materials extraction and acquisition; materials processing and manufacturing; product manufacture, including components and packaging; product distribution; product use or consumption; product disposal; and service delivery practices. Once recommended for licensing, companies are subject to normal rules of testing, verification and ongoing compliance.

One of the strengths of ECP is its ability to be flexible and also as rigorous as market, technical and economic conditions allow.

2) Scientific Certification Systems — Verifying Claims of Suppliers

Scientific Certification Systems (SCS), of California, is a multi-disciplinary scientific organization that has developed effective programs to assess the environmental claims of companies. There is no equivalent operation in Canada. Two well-established systems are The Environmental Claims Certification Program, which verifies specific environmental claims of manufacturers and retailers; and The Environmental Report Card Program, which provides an environmental profile of products and packaging based on life cycle assessment.

Case Studies

Another SCS program that is gaining attention is the Forest Conservation Program, which compares forestry management programs and timber harvesting practices of timber companies and rates them out of a possible score of 100. The evaluation takes into account the following:

- *Sustainability of the Timber Source*, which covers harvest regulation; stocking and growth control; pest and pathogen management strategy; forest access; harvest efficiency and product utilization; and management plan and information base.
- *Forest Ecosystem Management*, which includes forestry community structure and composition; long-term ecological productivity; wildlife management actions, strategies and programs; watercourse management policies and programs; pesticide use; and ecosystem reserve policies; and
- *Financial and Socio-Economic Considerations*, which takes into account financial stability; community and public involvement; public use management; investment of capital and personnel; and employee and contractor relations.

SCS also has "A Chain of Custody" procedure to certify that manufacturers and retailers of wood products are using wood from a forestry company that has been endorsed by the Forest Conservation Program.

SCS's rating method is an effective way to compare the environmental performance of companies because the same evaluation technique and criteria apply. This has encouraged over six forestry companies to participate in the Forest Conservation Program and 15 manufacturers and retailers to be certified for "Chain of Custody". The drawback is that the SCS certification program is not widely recognized and purchasers are not asking companies to show that they are practicing sustainable forestry management and harvesting practices.

A CLOSER LOOK INSIDE THE PUBLIC AND PRIVATE SECTORS

THE PUBLIC SECTOR — CANADA

Public sector respondents all confirm that some green procurement is taking place. The criteria used to screen "green" products and services vary extensively among federal organizations. Some groups focus on single criteria, such as recycled content, and others use eco-labelling sources such as Canada's Environmental Choice Program to assess products. Following is a summary of major findings:

Organizational Approaches

- In the public sector, procurement is governed by policy. Most federal government departments have their own lengthy policy manuals for materiel management, but few specify environmental criteria or issues. The trend towards decentralization is empowering more managers to make purchasing decisions and consequently these policies are being overhauled to be more relevant to the department's needs.
- Federal departments are decentralizing procurement authority, putting more managers in charge of specifying products and suppliers. Low price often becomes a priority and it is virtually impossible to monitor purchasing. This is seen as a barrier to additional controls because they become impossible to enforce.
- Managers who have inherited procurement responsibilities through decentralization are concerned about liability.
- Despite the trend towards decentralization, many respondents feel that the most effective way to promote environmentally responsible procurement is through policy direction from the top. Generally, departments that follow a clearly defined central policy also support more use of environmental criteria.

- The federal government is taking environmental responsibilities more seriously and most departments are developing environmental management frameworks or systems (EMF/S). Essentially, these are operating policies that incorporate principles of environmental stewardship and effective management. However, despite this renewed emphasis on policy, either within materiel management guidelines or within an EMF/S, only three of 20 contacts reported having an environmental policy in place and 10 departments reported that they have a draft policy in place.
- The local purchasing limit for goods, commonly referred to as a Local Purchase Order (LPO), has risen to $5,000 from $2,500. This encourages further decentralization in purchasing. LPOs allow employees with delegated purchasing authority to choose a supplier without going to tender.
- Only a few standing offers include green procurement guidelines. Standing offers are agreements negotiated between a supplier and the federal government pertaining to product characteristics and price. The government sets a benchmark that can include performance and specified features such as speed or memory. Suppliers who meet these criteria also offer a maximum allowable cost for that product or service. All federal purchasers have access to federal standing offers and a large number rely on them to fulfill their purchasing requirements.

Use of Criteria

- All federal government contacts confirm that they "buy some green products." The most commonly cited criteria are: recycled content, energy and water efficiency, reduced packaging, waste reduction, and alternative fuel or "reduced pollution" that causes fewer strains on indoor air quality. This notwithstanding, cost is still the bottom line in almost all cases. Because environmentally preferred items are frequently more costly in the short term, purchasers often consider other products first.
- Some departments give preference to ECP-certified products and services. Generally, federal purchasers find it simpler to use ECP guidelines than to develop their own.
- Provincial governments and Crown corporations have concentrated on recycled content, energy efficiency and packaging and have made more use in general of ECP guidelines. They are also more inclined to apply cooperative purchasing, price preferences and to use standard environmental clauses.
- Although some provincial and Crown organizations still have a centralized purchasing operation where a few buyers make all procurement decisions, many are decentralizing and delegating purchasing authority to non-specialized employees. This is making it increasingly difficult to put in place and monitor compliance with directives such as "must purchase EcoLogo^{M} products where available."

Case Studies

1) Transport Canada

Transport Canada demonstrates some of the earliest green procurement initiatives taken by a federal government department and serves as a useful example of the challenges that many groups face. It is also worth highlighting the department's Choose Green guide as a tool for green procurement.

Transport Canada introduced an environmental procurement program in March 1992. This coincided with the launch of an Environmental Coordinators Network by the Office of Federal Environmental Stewardship (OFES) of Environment Canada. At that time, only the House of Commons was active in green procurement at the federal level.

Transport Canada's program generated two key deliverables in 1992 and early 1993: a course on "Implementing Green Procurement Policies," and a "Choose Green" manual and products directory. The Choose Green guide provides advice on what constitutes "green" purchasing and how this might be achieved. The guide also includes a selective list of "green" products for the department. Both projects were well accepted and OFES provided financial support. The course was taught to over 200 Transport employees over the next two years. The Choose Green guide was distributed to over 300 people in Transport Canada and to other interested parties outside the department.

One of the drawbacks of Transport Canada's program was that it lacked an environmental procurement policy. This problem was initially addressed in early 1994 when, after lengthy review, green procurement was incorporated into a proposed Deputy Minister's Circular entitled Transport Canada's Green Workplace Commitment. The broad-based policy states: "It is Transport Canada's policy that managers will ensure that their activities and decisions have the least possible negative impact on the environment." Following are key policy highlights:

- There are directives to reduce the use of fine paper. To gauge progress, the department is encouraged to measure the total amount of paper used within a defined work area.
- Transport Canada employees are instructed to purchase products under the Environmental Choice Program (ECP), with two exceptions: situations where it is prohibited to do so by the North American Free Trade Agreement, and where the cost differential exceeds 10%.
- If a product needed by the department is not ECP-certified, managers "shall make every effort to purchase products that bear other recognized environmental certification, or use their best judgment to obtain products with the least harmful impact on the environment."
- There is a requirement to use low sulphur fuels, where possible. Users must consider an electronic alternative before opting to use paper. Paper must also meet or exceed ECP requirements.
- Facilities must be managed in keeping with sound environmental principles. For example, managers are urged to ensure that the "use of environmentally preferred cleaning products is enforced and included in cleaning contracts."
- The department is urged to carry out energy and water audits and to purchase resource efficient products.

As of April 1, 1995, the DM circular was still not signed, a step necessary to turn the policy into a binding directive. The Choose Green guide has not been updated in two years and its role is unclear. The green procurement course is now a computer-based training course and also serves a secondary role as an electronic reference source.

No action has been taken to measure the impact of the training program or the Choose Green guide. The lack of an environmental procurement policy and decentralized purchasing stand out among the factors that have prevented full integration of environmental criteria into procurement at Transport Canada.

2) Follow up: The AMMIS System at Statistics Canada

A number of government employees with purchasing responsibilities would like a "green" products guide. However, many lack the time and resources to compile or locate a list of environmentally preferred products.

Statistics Canada has made this task easier by modifying a federal online purchasing system — AMMIS (Automated Materials Management Information System), now being used by several departments — so that it automatically highlights "green products" when on-screen orders are placed.

To be designated "green", a product must meet one of three criteria:

1. It must be an ECP-approved product;
2. It must be certified by another eco-labelling program or meet criteria laid out within a "green" standing offer established by Public Works and Government Services Canada; or
3. It must be approved by the StatsCan Environmental Initiatives Program.

3) Environmental Specifications for Office Furniture, Public Works and Government Services Canada

In 1994, the federal government allocated about $142 million toward new office furniture throughout the public sector. To help promote environmentally responsible purchasing, Government Services Canada developed an environmental specifications package for office furniture in conjunction with Environment Canada's office of Federal Environmental Stewardship.

This initiative is the first of its kind in North America and incorporates key aspects of life cycle assessment. Purchasers must consider product design, resource inputs, manufacturing, packaging and distribution, consumer use and post-consumer use. In addition, the directives indicate environmental activities that are considered mandatory for industry and those that are desirable. This helps industry to target environmental goals.

One drawback is that none of the environmental specifications have been introduced into the government's national standard specifications. Early attempts to introduce environmental criteria as a mandatory part of the national standards for chairs were stalled owing to negative feedback from industry. This earlier version has been revised so that the specifications are recommended rather than mandatory. The new version is expected to be passed soon. The underlying message to furniture manufacturers is that environmental requirements are forthcoming.

THE PRIVATE SECTOR

Thirty companies from a wide industrial range and a number of organizations promoting environmental procurement among businesses were contacted. The latter group includes the U.S. based Buy-Recycled Business Alliance (BRBA), the Canadian Buy-Recycled Alliance (CBRA), the Green Seal Environmental Partner Program and the Washington Retail Association. See Appendix A for the list of companies.

Although this part of the study was hindered by the reluctance of many companies to discuss procurement policies and procedures, viewing them as competitive advantages, following are useful findings:

Organizational Approaches

- Most companies interviewed have developed an environmental policy statement. Either the company's president, CEO or director of environmental affairs has made a policy statement about the company's commitment to the environment.
- Some companies have begun to produce their own environmental reports, highlighting environmental initiatives, such as pollution prevention, 3Rs, energy and water conservation, toxicity reduction, education and promotion.
- A small percentage of companies' environmental policy statements and/or guiding principles make reference to environmentally responsible purchasing.
- The term "sustainable development" does not appear in any reference to purchasing. It does appear in the environmental policy statement of one company interviewed — The Body Shop refers to environmentally sustainable resources.
- Price is the dominating factor in the private sector's "green" purchasing decisions. One contact's comment sums up the motto of private purchasing: "Make it attractive, make it economical, force me or leave me alone."
- Companies are generally wary of recycled content products because they believe that the U.S. public sector's price preference policies have artificially pushed prices high for these goods.
- The private sector is concerned about its limited capacity to verify environmental claims such as percentage of recycled content.
- Not many companies wholeheartedly endorse products certified by Environmental Choice, Green Seal or other eco-labelling programs.

Use of Criteria

- Private sector companies commonly use the following environmental criteria: recycled content of product; pollution created in product production (e.g. air emissions); minimal and reusable packaging; recycled content of packaging; and hazardous byproducts.
- Several companies ask suppliers if they have an environmental management system in place, if they are in full compliance with environmental legislation, and who has responsibility for environmental issues.
- Some companies explore broad areas such as management systems; others have very specific questions on a theme area.
- Some organizations make a general inquiry about a supplier's environmental profile that brings out other criteria. For example, British Gas asks the following: "Have you carried out a formal review of all discharges and emissions from your works?"
- A number of companies and organizations inquire whether an analysis of a product's life cycle has been made and some ask for the results of the study. Their questions cover a wide range of environmental impacts.
- Very few companies ask suppliers social or ethical questions. As an exception, British Gas includes the following general criteria: "Have you launched or contributed to any environmental or social initiatives on a local/national scale?"
- Quaker Oats has introduced a site inspection questionnaire for claims verification, and Home Depot has worked closely with Scientific Certification Systems to ensure that product suppliers are certified.
- The Body Shop insists that suppliers sign a declaration that they have not tested on animals in the past five years.

Case Studies

1) The Body Shop

The Body Shop stands out for its thoroughness in ecological procurement. This company provides detailed guidelines for the products and services it purchases and has a questionnaire for suppliers of raw materials and/or packaging components that covers the entire product life cycle. Suppliers must also answer the company's complete 'Animal Protection Questionnaire.'

The Body Shop has the most comprehensive set of criteria for specific items including synthetic detergents, soap bases, cocoa butter, sea sponges, bananas, cotton products, recycled paper, fragrances, computers, light bulbs and services such as cleaning, building maintenance, gardening and catering. Guidelines incorporate all aspects of the life cycle and take into account the long-term sustainability of the resource and ecosystem, social impact, employment conditions for workers, hazardous wastes that are used, produced or emitted, and packaging.

The company includes explanations of its various social and environmental concerns to help buyers understand the reasoning behind its criteria. The Body Shop also uses some social/ethical criteria in its 'Trade Not Aid' program.

2) Quaker Oats Canada

Quaker Oats Canada has become a leader in waste reduction and energy conservation, boasting a 90% reduction in waste requiring disposal and a 30% reduction in energy consumption. This company serves as a strong example of how an organization is endeavouring to apply its environmental principles to the supplier arena. Quaker Oats makes suppliers, co-manufacturers, and other business associates responsible for maintaining an acceptable level of environmental performance by asking them to do the following:

- undergo an annual environmental site inspection by Quaker Oat representatives who apply an "Environmental Site Inspection" audit in the form of a checklist; and
- sign the company's "Environmental Purchasing Policy" that commits them to comply with environmental laws and regulations, undergo an environmental appraisal and inform Quaker Oats of any environmental incidents.

The company's own environmental objectives are much more comprehensive and aggressive than those required of its suppliers.

Quaker Oats is proceeding slowly with this program, largely owing to limited personnel assigned to carry out the work. Fifteen companies, mostly co-manufacturers, co-packagers and business associates, have undergone the environmental site inspection, now in its second year. The response has been positive and more companies are anticipating the need for environment-related information.

Quaker Oats staff consider the program a success. The company has recently begun to train its quality assurance inspectors to perform the environmental site inspection, which will help to increase the number of audits. Purchasing agents are now also being given responsibility to ensure that new suppliers meet the requirements of this program.

- British companies have raised specific questions and concerns about forestry practices. British Telecom asks about the production of paper from "old growth" forests and The Body Shop warns of buying wood products from countries such as Chile, United States and Canada where, it states, "old growth and boreal forest are rapidly disappearing."

THE PUBLIC SECTOR — INTERNATIONAL

The U.S. federal and state agencies represent the most powerful buying force in North America. The U.S. federal government alone is reported to purchase over $200 billion worth of goods and services annually and to manage over 500,000 buildings. Several dozen U.S. state agencies and non-governmental organizations were contacted for this study. While feedback from the United States was strong, response from European countries was very limited. Following are major findings derived mainly from the United States:

Organizational Approaches

- Some agencies with environmental procurement policies have established procedures to implement them.
- A number of U.S. agencies use price preference policies to encourage the production of green products. With the focus on recycled content, this practice can distort the true market value of recycled content goods.
- There are no well-organized procurement initiatives by U.S. state agencies that encourage using products that conserve energy or water, are non-toxic, or minimize waste. In general, state agencies seem reluctant to pursue these issues without direction from the U.S. federal government.
- The Norwegian Ministry of the Environment has developed an extensive guide to green purchasing in cooperation with organizers of the 1994 Lillehammer Olympics. This "Green Office" buyer's guide recommends criteria for purchasing products and services in dozens of categories. It has been adopted by most federal ministries and more than 120 local governments.

Use of Criteria

- The majority of U.S. state agencies have addressed recycled content but only recently have some begun to explore other criteria such as source reduction and toxicity. Other environmental and social criteria are at the infancy stage of development.
- Some agencies require that printers use vegetable-based ink for printing jobs and in packaging.
- The State of Illinois has developed an evaluation system for selecting energy service companies.
- The State of Minnesota focuses on the reusability and recyclability of products and their parts.
- Some agencies use product standards and criteria established by the Environmental Protection Agency.
- The Norwegian "Green Office" buyer's guide to environmentally preferred products recommends various criteria for purchasing several hundred products and services. Products and packages carrying the "Nordic Swan" label are preferred, as are recycled and reusable materials. Materials to be avoided include carcinogenic agents, PVCs (polyvinyl chloride), ozone-depleting materials, lead, cadmium, chrome, mercury and other toxic metals, formaldehyde and certain detergents.

State of Minnesota

The State of Minnesota is considered a leader in promoting green procurement and other environmental initiatives. In the early 1990s it developed the first "Environmentally-Aware Purchasing Checklist" that introduced the concepts of product durability, reparability/reusability, recycled content, toxicity, packaging, resource use and disposal to procurement officers. Information is clarified through a checklist of questions.

The State has taken a step further and passed the following series of statutes on green procurement:

16B.121 Purchase of Recycled, Repairable and Durable Materials – requires the commissioner of administration to take recycled content, recyclability/reuse, durability and toxicity into consideration in bid specifications with a price preference of 10%;

16B.122 Purchase and Use of Paper Stock; Printing – requires that paper/printing be on uncoated stock, contain 10% post-consumer fibre, contain no chlorine bleach, use soy-based inks, etc.;

16B.123 Packing Materials – requires packing materials to be biodegradable with a 10% price preference;

115A.15 State Government Resource Recovery – stipulates that the commissioner of administration shall develop a waste reduction procurement program and a cooperative purchasing program;

115A.965 Prohibition on Selected Toxins in Packaging – requires that packages sold in the state shall not contain heavy metals.

As a follow through to these statutes, the State Office of Waste Management developed "Purchasing Guidelines for Source Reduction" and a "Source Reduction Purchasing Guidelines Chart" that serves as a checklist for procurement officers.

It is difficult to assess the impact of the statutes, especially the requirements on durable and repairable materials and the ban on selected toxins in packaging, because there are no means in place to measure or track them. The view is that until more states adopt similar legislation, there is no incentive for industry to change its product design and production operations. Industry has incorporated recycled content into its products after the federal government and state agencies joined forces to make recycled content mandatory in their purchases. There has been no similar collective effort to address reparability, durability, and toxicity.

The State of Minnesota also has no tracking system to help evaluate companies that bid for products and services. The State has a policy to cite durability, reparability and toxicity in its product/service bid documents, but there is no requirement for companies to respond to the statements. Consequently it is difficult to compare the different claims and to quantify the results. Evaluation becomes subjective and not very effective in promoting change.

LESSER DEVELOPED CRITERIA

Criteria for Services

Few organizations across the public and private sectors have included service providers in their green purchasing efforts. They view service evaluation as more complex and are more concerned about the priority challenge of coming to terms with green procurement for products. A few groups are addressing the global impact of a service on such concerns as energy consumption and greenhouse gas emissions.

Consideration of Social and Ethical Concerns

Very few organizations active in green procurement have made a serious attempt to include social and ethical concerns in their activities. The Body Shop is a notable exception. Most groups consider this area to be a "Pandora's box" of subjective values and judgments that they prefer not to open. A number of associations and government groups in North America and Europe that focus on such concerns have attempted to rate or exclude companies according to their records on such diverse issues as minority and women's advancement, involve-

Case Studies

Building Design, Construction and Demolition

Significant efforts to incorporate criteria for green service procurement have been taken in one important area: building design, construction and demolition. Though standards and guidelines are still in their infancy, a number of programs and organizations are currently addressing these issues.

The Building Environmental Performance Assessment Criteria (BEPAC) were developed in 1993 by a large stakeholder group including Environment Canada, the British Columbia Buildings Corporation, and ASHRAE B.C. The comprehensive BEPAC method helps to determine how existing buildings measure up against the following:

- Ozone layer depletion;
- Environmental impacts of energy use;
- Indoor environmental quality;
- Resource conservation; and
- Site and transportation.

BEPAC findings serve as useful indicators of where environmental initiatives should be focused.

Five BEPAC assessments have been completed in B.C. and Ontario, and six more have been commissioned by the Ontario Realty Corporation. The federal government is considering using BEPAC or a similar method of evaluation and is expected to make a decision soon.

Green Demolition

"Green" demolition ensures minimal damage to all materials so that they may be reused or recycled. Many cities across the country have reuse centres for construction materials. In a pilot project conducted by Natural Resources Canada at its Ottawa headquarters, approximately 90% of the demolition material was diverted from landfill for reuse or recycling. The study showed that green construction practices can be accomplished on a cost neutral basis.

Green Construction

It takes all players in a project to help minimize the environmental impact of new construction and refits — from architects and designers to contractors. The impact of the overall design on energy (i.e. lighting & heating), and layout (space optimization) must be considered, along with environmentally improved construction materials. A number of companies are currently practising this new form of environmental collaboration in design and construction.

ment in the arms trade and animal testing. Purchasers sometimes use their ratings of different suppliers.

The U.S. Council on Economic Priorities, for example, has developed a comprehensive method to rate the social responsibility of manufacturers of consumer products. Companies are measured against selected issues such as: charitable giving; women's advancement; minority advancement; community outreach; disclosure of information; animal testing; the environment; family benefits; and workplace issues.

EthicScan Canada performs a similar assessment of companies in all industrial sectors. It rates their performance against nine categories : candour, women's issues, charitable giving and community involvement, progressive staff policies, labour relations, environmental management, environmental performance, management practices and consumer relations, and Canadian content. EthicScan believes these areas are considered by strong consensus among advocacy groups and specialists in the field to be key issues of social responsibility.

LESSONS LEARNED

One of the strongest messages coming out of this study is the need for clear policy and political support. Only organizations that have a firm, publicly stated commitment from top leadership, backed by the resources and strategies for implementation, can be expected to make significant headway in green procurement.

Findings indicate that organizations that are moving ahead with improved "green" purchasing systems and practices have:

a. focused on specific objectives and targets;

b. tied their efforts to the interests and business purpose of the organization;

c. invested necessary human and financial resources to put systems in place and train purchasing personnel;

d. incorporated environmental objectives into their normal purchasing methods; and

e. made a long-term commitment to establish green procurement within the organization.

This study points to further opportunities:

- Government organizations would benefit from a clear and shared definition of green procurement.
- Purchasers would benefit from examples of "best practices" in methodology and criteria used by leading organizations.
- Purchasers would benefit from a sound system of "eco-labelling" for products/services as well as certification of suppliers, so that they can rely on an independent, accurate source of information.
- Federal departments that use the Environmental Choice Program (ECP) or other guidelines such as Green Seal have the opportunity to focus on more than single criteria. Guidelines may include references to packaging, toxicity and recycled content.
- Government standing offers present an interesting opportunity for promoting green products.
- An environmental procurement policy would be a useful supplement to the environmental management frameworks or systems (EMF/S) being established by public sector departments, as they would help to empower managers who have inherited decentralized responsibilities.
- The impact of mandatory purchasing requirements in government for recycled content should not be underestimated. When the U.S. federal government raised its mandatory purchasing requirement for post-consumer recycled fibre content to 20%, the response was immediate. Mills seem reluctant to produce paper products that do not reflect the new U.S. government purchasing requirement.
- The federal government can play an important role in incorporating all existing environmentally improved construction and demolition (C&D) practices into its refit and construction projects. This will put in place new technologies and infrastructures. It will also help contractors in the private sector to reduce the impact of their C&D practices. C&D waste accounts for an estimated 30-40% of all material sent to landfill. Even a small reduction in this waste could significantly reduce the pressure on landfill sites across the country.

Frameworks for evaluation and comparison of criteria

To compare the different approaches and criteria across all sectors, this report provides two matrices. The first matrix (see Appendix B) isolates key approaches and options taken, including: Environmental Choice Program, price preferences and cooperative purchasing.

The second matrix (see Appendix C) illustrates and compares the entire spectrum and depth of criteria in use. These have been organized under three themes: Life Cycle Assessment; Organization's Environmental Profile; and Organization's Social/Ethical Profile. Criteria are in the form of questions that the purchaser might ask the supplier. Recognizing that specific criteria and guidelines from around the world exist for over 200 unique different products and services, this matrix excludes criteria that apply only to one or a few products.

FROM ANALYSIS TO ACTION

Recommendations

The Task Force's main recommendation is that all federal departments adopt a clear and forward-looking policy to advance green procurement, and directives to support the policy.

In the absence of universally accepted definitions and criteria and of verifiable lists of "green" suppliers, this Task Force report can help to bridge the gap and provide the information and tools needed to take the appropriate next steps. At the same time, the Task Force can work with appropriate agencies to hasten and improve the quality of labelling, certification and product identification.

The Task Force believes that incremental change is the only realistic way to advance greener procurement practices. To this end, the Task Force proposes a series of criteria in Chapter Two designed to help procurement practitioners take some important steps forward. This 'Tools Chapter' includes suggestions for developing clear policies and examples. Sample product/supplier verification forms are also provided. It is hoped that this will help the federal government to pave the way for other governments and the Canadian public, and will provide industry with a clear understanding of future requirements for sustainable development.

Future Directions

The Task Force recommends the following future action for the National Round Table on the Environment and the Economy in green procurement — in partnership with federal departments, industry and other stakeholders:

1. Develop a guide for suppliers to the federal government along the lines of the British Department of Environment's "Selling to the Federal Government - A Green Guide for Suppliers of Goods and Services to the Department of the Environment." It could provide valuable explanations on environmental policy and criteria, how to evaluate, verify, specify and exclude products, and how to sell "green" products to the federal government.

2. Support the creation of an online directory and database of suppliers, products and services with a verification system to be determined.

3. Produce a green procurement casebook that provides a strategy for implementing green purchasing. It could incorporate criteria and resources listed in the tools chapter of this report, and segments of the Canadian Standards Association guide.

4. Study the domestic economic and employment impact of green procurement.

5. Develop further training and performance enhancement tools to complement the Green Procurement Computer-Based Training currently used by the federal government.

6. Take central leadership wherever possible to send a clear message to federal departments, industry and the Canadian public.

7. Integrate environmental or sustainable development responsibilities into job descriptions and the entire job evaluation process.

Chapter 2

TOOLS: CRITERIA FOR PRODUCTS AND SERVICES

INTRODUCTION

This chapter offers a series of criteria based on the "best of" what the Task Force has found in its investigation of green approaches and testing methods throughout the public and private sectors and in third-party certification programs.

Nine product and service areas were selected because of their high impact on sustainability, based on the following priority factors: high dollar value and frequency of purchase; good potential for advancement of green procurement; a strong likelihood of success given the state of existing knowledge and resources; and a clear environmental benefit.

The Task Force presents this tools chapter as a stand-alone document designed to help purchasers develop specifications for products and services and to evaluate their environmental qualities.

It is understood that purchasers will not be doing "green procurement" in a vacuum. Rather, environmental criteria must be incorporated into existing purchasing systems and integrated with such traditional criteria as quality and price. In many cases, the "greener" alternative may have a higher price tag than "less green" products/services. To get a more accurate reading of the cost, purchasers should consider the full life cycle cost of the product or service. When all factors are taken into account, environmentally preferred products and services can offer significant savings, such as: reduced consumption of energy and other resources; costs avoided or reduced for disposal, storage, accidents, insurance, sick leave for staff; longer product life; easier repair, etc. The criteria in this tools chapter identify many of these potential costs and savings.

These tools are designed to be straightforward and easy to use. A list of resources is provided with each set of criteria for additional information on the underlying issues. Further resource material is provided in a Directories section.

Taking into account that purchasers might consult only one or two lists at any given moment, users will find some repetition in the information. For similar reasons, although a separate set of criteria is provided for packaging because it crosses many categories, many elements are also included in other relevant product and service categories.

Users can also refer to a separate section on generic environmental criteria that apply to almost any purchase, including those that do not fall into the key areas covered in this document. This section includes a short list of general criteria, and an expanded list used by various organizations worldwide.

Key Principles of Sustainable Procurement

The criteria in this tools chapter were developed according to the following generally accepted principles of sustainable development. They represent guiding concepts that are both environmentally and economically sound.

3Rs hierarchy (Reduce, Reuse, Recycle). Emphasis should be placed on the hierarchy.

Life cycle impact. Products should be evaluated on their environmental impact throughout the entire life cycle.

Cost effective over life cycle. The cost of using the product/service over its entire life cycle should be compared with similar products/services.

Toxic use reduction. The use and release of toxins should be reduced throughout the entire life cycle.

Minimize use of resources. Optimal use should be made of all resources, including energy, water and other materials used in or by products and services.

Regulatory compliance. Manufacturers and suppliers should demonstrate that they are in full compliance with current legislation.

Unbiased verification. An accurate verification process employs suitable scientific verification methods, and produces unbiased, reliable data regarding environmental claims.

Generic Environmental Criteria

Overview

Generic environmental criteria meet an organization's needs best when provided in both a long and short form. The short form below offers insight into the potential environmental impact of virtually any product or service. Some questions are general and serve as prompts for further probing. Others are very complex and are aimed at evaluating the full life cycle. A more extensive list is also provided.

A) SHORT FORM

Pre-purchase Considerations

- ✔ Is the product/service necessary?
- ✔ Are all features/elements necessary?
- ✔ Can the product be shared, borrowed or rented rather than purchased?
- ✔ Can a used or re-manufactured product be substituted for the new product requested?

General Questions

- ✔ Is the product certified "green" (e.g. EcoLogo™/Green Seal or other recognized independent program)?
- ✔ Is the product durable/long lasting?
- ✔ Is the product easily repaired?
- ✔ Is it easily updated or upgraded by replacing or adding a part?
- ✔ Has a full life cycle environmental evaluation been carried out on the product?

Manufacturing/Use/Disposal

- ✔ Does the product contain recycled material?
- ✔ Does the product contain toxins (as defined by the Canadian Environmental Protection Act), banned or restricted substances (e.g. CFCs) or ozone depleting substances?
- ✔ Does the product design minimize use of resources (i.e. energy, water)?
- ✔ Is it easily maintained and repaired?
- ✔ Is it reconditionable or recyclable after use?
- ✔ Does the product require special disposal considerations (e.g. hazardous materials)?

Environmental Profile of Manufacturer, Supplier or Service Provider

- ✔ Does the company have a written, formal, environmental policy?
- ✔ Does the company have an Environmental Management System (EMS)?
- ✔ Does the manufacturer comply with any environmental performance standards (e.g. ISO 14000, BS7750, CSA Z750)?
- ✔ Does the company apply stricter environmental standards than required by law?
- ✔ Has the company made a commitment to cradle-to-grave product stewardship?

B) LONG FORM

General Environmental Criteria

- Is the product necessary?
- Is the product size/magnitude necessary?
- Are all features necessary?
- Can the product be shared, borrowed?
- Does product comply with standards and regulations?
- Are green procurement guidelines, standards or specifications available from Environmental Choice/CGSB?
- Is the product "certified" green? (e.g. Ecologo™/Green Seal etc.)?

Product Design

- Is the product durable/long lasting?
- Is it reconditionable after use?
- Is it recyclable after use?
- Does it contain recycled material?
- Does it contain post-consumer recycled material?
- Is it easily updated or upgraded by relacing or adding a part?
- Is it easily maintained and repaired?
- Are parts easily reused?
- Are parts easily reconditioned?
- Are parts easily recycled?
- Does product contain toxins? (as defined by Environmental Protection Agency or Canadian Environmental Protection Act)
- Does product contain banned or restricted substances (e.g. CFCs)?
- Does product contain ozone depleting substances?
- Does product design consider energy conservation?
- Does product contain VOCs?

Manufacturing/Production Process

- Has manufacturer complied with National Pollution Release Index (NPRI)?
- Is manufacturer participating in ARET (Accelerated Reduction/Elimination of Toxins) program?
- Does manufacturer comply with any quality performance standards (e.g.) ISO 9000)?
- Does manufacturer comply with any environmental performance standards (e.g. ISO 14000, BS7750, CSA standards)?
- Is manufacturer willing to sign a statement verifying that it complies with environmental legislation?
- Is manufacturer willing to undergo an environmental audit?
- Does process produce greenhouse gases?
- Does process minimize energy expenditures?
- Does process minimize discharges to water bodies?
- Does process use ozone depleting substances?
- Does manufacturing process create NOx emissions?
- Does manufacturing process create SOx emissions?
- Does manufacturing process create CO_2 emissions?
- Does manufacturing process create ground level ozone emissions?
- Does manufacturing process create particulates emissions?
- Does manufacturing process create carcinogens identified by the international Agency for Research on Cancer (IARC)?
- Does manufacturing process create hydrocarbons?
- Does manufacturing process use halogenated solvents (e.g. chlorinated, brominated etc.)?
- Does manufacturing process use aromatic solvents?
- Does product contain, or process use, heavy metals, especially lead, mercury, cadmium, hexavalent chromium and their compounds?
- Do you discharge any air emissions? (general question)

Water Effluents

- Are the organic compounds from water effluents biodegradeable?
- What is the level of toxicity to aquatic life, using Environment Canada Biological Test Methods or equivalent?
- What is the level of biochemical oxygen demand (BOD) of effluent from manufacturing sites?

- What is the level of total suspended solids in effluent from manufacturing sites?

Material Acquisition

- Are environmental and social impact assessments conducted before activity commences?
- Does product substitute renewable materials for non-renewable resources?
- Does extraction method prevent water contamination?
- Does extraction/acquisition create hazardous by-products?
- Does acquisition cause displacement of local peoples?

Agricultural Considerations

- Are sustainable harvesting methods used?
- Are methods used to prevent soil erosion?
- Are pesticides/insecticides used?
- Are fertilizers used?
- Are 'certified organic' products used?

Packaging/Shipment

- Are "Canadian Code of Preferred Packaging Practices" guidelines or equivalent used?
- Does company comply with National Packaging Protocol?
- Does product eliminate packaging?
- Does product use minimal packaging?
- Does packaging contain recycled content?
- Does packaging use post-consumer recycled materials?
- Does packaging use non-chlorine bleached paper?
- Does product use bulk packaging?
- Is container refillable?
- Is packaging reusable by returning to supplier?
- Does packaging use soy-based inks?
- Can packaging be recycled locally?
- Can packaging be recycled in an economically/technically viable manner?
- Are alternatives used to polystyrene "peanuts"?
- Is a return loop in place for recycling?
- Can packaging be reused for another purpose?
- Does product come in a concentrated form?

Consumer Use/Product Use

- Is product energy efficient?
- Is product water efficient?
- Does product generate little or no waste during use?

Indoor Air Quality Issues

- Do formaldehyde emission rates not exceed 0.05 ppm after 30 days of installment?
- Do VOC emission rates not exceed 0.5 ppm after 30 days of installment?
- Is off-gasing from product eliminated or significantly reduced?

End Use/Disposition

- Does product require special disposal considerations?
- Can components be effectively separated into identifiable materials and be salvaged/repaired/recycled?
- Can product be recycled in an economically/technically viable manner?
- Is product labelled to inform user of relevant disposal information?

Organization's Environmental Profile

(questions about company)

- Is an Environmental Management System (EMS) in place?
- Has an environmental audit been conducted?
- Does company have a comprehensive waste management/recycling program in place?
- Does company comply with all environmental legislation?
- Does company apply stricter environmental standards than required by law?
- Can it substantiate all environmental claims?
- Is responsibility for environmental issues at Company Director level?
- Is there environmental issues training for all staff?
- Is there an Environmental Policy Statement?

- Is there an Environmental Policy Statement available to the public?
- Does company conduct an environmental appraisal of suppliers and subcontractors?
- Has a full life cycle environmental evaluation been carried out on products or services?
- Is the company making demonstrable efforts to maximize resource efficiency (e.g. water, energy etc.)?
- Has the company had any environmental infractions over the past five years?
- Does the company have a local purchasing preference policy?

Organization's Social/Ethical Profile

Animal Testing

- Is animal testing conducted?
- Are *in-vitro* tests conducted?

Advancement of Women/Minorities/Disabled

- Are women/minorities on Boards of Directors?
- Are women/minorities in top official/management positions?
- Does company hire employees with disabilities?
- Are facilities accessible by wheelchair?
- Are you an Equal Opportunity Employer?

Family benefits/Workplace benefits

- Does company have a flexible workplace policy and/or work at home arrangements?
- Does company have a non-discrimination policy/program regarding sexual orientation?
- Does company have a child care assistance and/or day care program?
- Does company have a parental leave program?
- Does company have educational and training assistance?
- Does company have an employee home ownership program?
- Does company have a no lay-off policy?
- Does company offer same benefits to part-time employees as full-time employees?
- Does company have policy to re-hire former employees?
- Does company have a stress release program?

Charitable Giving/Community Outreach

- Is there a charitable giving program in place?
- Is employee involvement in community volunteer activities encouraged?
- Does company donate food to local food banks?
- Does company sponsor a community recycling program?
- Do community members sit on the corporate environmental committee?

Packaging

Overview

Packaging makes up an estimated 30% of municipal waste. Purchasers can help to reduce waste by applying the 3Rs hierarchy: They can buy from suppliers who Reduce the amount of packaging, Reuse containers and packaging, and ensure that packaging is readily Recyclable and has post-consumer content.

- ✔ Product should have no packaging or be packaged in bulk wherever possible.
- ✔ Packaging should be eliminated wherever possible.
- ✔ Packaging that is returnable for reuse may be preferable wherever this is feasible.
- ✔ Containers should be refillable wherever possible, or if not refillable, reusable for another purpose.
- ✔ If not reusable, packaging should be readily recyclable. Packaging is recyclable if there is a widely available economically viable collection, processing and marketing system for the material.
- ✔ Packaging should consist of single materials, wherever possible, as opposed to multi-material packaging, to increase recyclability.
- ✔ Recycled packaging is preferable if it contains post-consumer recycled material content. Ask supplier to specify percentage.
- ✔ Packaging should not contain toxic ingredients.

Resources

Canadian Council for Ministers of the Environment. *Canadian Code of Preferred Packaging Practices,* March 1990.

The GIPPER's Guide to Environmental Purchasing. 1995 edition.

State of Minnesota, Department of Administration. *Environmentally Aware Purchasing Checklist.* November 1991.

Federation of Canadian Municipalities. The *Packaging Waste Reduction Guide: Minimizing Solid Waste through Efficient Procurement Practices,* 1993.

Housekeeping and Janitorial Products and Services

Overview

The federal government uses about 17,000 bathtubs full of cleaning products each year (Office of Federal Environmental Stewardship, 1994). Many of the products contain ingredients harmful to both humans and the environment. Some provide only temporary relief or simply mask the problem. Reducing harmful cleaning products will lower long-term costs associated with health care and a degraded environment.

Minimize Use of Hazardous Ingredients

- ✔ All purpose cleaners should be EcoLogo^{M}-certified and meet Environmental Choice Program guidelines wherever possible.
- ✔ Products should be biodegradable.
- ✔ Unscented products are preferable.
- ✔ Toxic products should be replaced with non-toxic products wherever possible.
- ✔ Products should be non-caustic, non-corrosive and non-chlorinated.
- ✔ Cleaning products should be standardized and unnecessary products eliminated to reduce the number of chemicals in use (i.e. air fresheners, carpet fresheners, bathroom cleaners).
- ✔ Products should contain no, or minimal, volatile organic compounds (VOCs).
- ✔ Products should have no, or minimal, biochemical oxygen demand (BOD).

Encourage Waste Reduction

- ✔ Cleaning products should be purchased in concentrated and bulk form.
- ✔ Packaging should be minimized by working with the supplier to use refillable containers that are returned to the supplier, whenever possible.
- ✔ Packaging should contain recycled content material.
- ✔ If packaging cannot be returned to the supplier it should be reusable or recyclable through the existing recycling program at the workplace or municipal collection programs.

Maximize Life of Cleaning Equipment

- ✔ Cleaning equipment should have an extended warranty and local servicing available.
- ✔ Cleaning equipment should have replaceable parts with parts that are easily accessible.

Maximize Worker Health and Safety

- ✔ Products must have Material Safety Data Sheets (MSDS) or equivalent information on potential hazards associated with their use.
- ✔ Health and safety information should be available in a variety of languages corresponding to the native language of the janitorial staff.
- ✔ Instructions for mixing concentrated products, etc. should be easy to understand.
- ✔ Concentrates should be dispensed using proper measuring devices (e.g. pump dispensers that measure the correct amount).
- ✔ Cleaning products should be clearly labeled.

Resources

Association of Municipal Recycling Coordinators. 1994. *Waste Reduction Fact Sheet: Janitorial Service and Supply.* Guelph, Ontario.

The Body Shop. April 1995. *Environmental/Ecological Guidelines for Buyers.* U.K.

Environmental Partners Program. 1995. *Office Green Buying Guide. Washington,* D.C.

Green Seal. July 1992. *Environmental Evaluation: Household Cleaners.* Washington, D.C.

Metropolitan Toronto Works Department. *Household Hazardous Waste Wheel.* Toronto, Ontario.

Environment Canada, Office of Federal Environmental Stewardship. 1994. *Green Cleaning Checklist.* Ottawa, Ontario.

The Pollution Probe Foundation. 1994. *Getting Off Toxics.* Toronto, Ontario

Environmental Choice Program guidelines.

Alternatives to Cleaning Products

Cleaning Product	Potential Hazardous Ingredients	Alternatives
Aerosols	• volatile organic compounds (VOCs) • ozone depleting substances	• no or low VOCs • pump dispensers
General Purpose Cleaner	• linear alkylbenzene sulfonates • glycol ethers • ammonia • isopropanol	• sodium bicarbonate • sodium citrate • citrus oils • pine oil • soaps
Bathroom Cleaners	• phosphoric acids • glycol ethers • alcohol • ammonia	• sodium bicarbonate • sodium citrate • borax
Glass Cleaners	• butoxy ethanol • alcohol	• vinegar and water
Toilet Bowl Cleaners	• phosphoric acid • hydrochloric acid • paradichlorobenzene • sodium hydrogen sulphate • glycol ethers	• sodium bicarbonate • sodium citrate • borax

Construction, Renovation and Demolition Products and Services

Overview

Moving, renovating and retrofitting Canadian government offices can generate much waste. Construction and demolition waste accounts for up to 25 percent of all waste going to landfill in Canada. The current restructuring and downsizing of government, which is causing about 50,000 to 60,000 people to move each year, adds to the challenge. It also opens new opportunities to apply sound environmental practices to renovation and construction that can lead to improved energy efficiency and air quality, greater use of environmentally preferred materials, and a reduction in the amount of waste generated. This section provides general criteria and issues that might apply to most procurement decisions. There are a number of useful publications that guide purchasers and sellers of construction-related products and services on relevant environmental issues. Some of these resources are highlighted at the end of this section.

A) PRODUCTS AND MATERIALS

Environmental impact in production, use and disposal

- Amount of non-renewable resources used in manufacturing.
- Method of resource extraction or harvesting.
- Emissions related to the manufacturing process.
- Efficient use of resources during lifetime of product/material (i.e. energy consumption, water consumption).
- Amount of hazardous or toxic ingredients used in production or contained in final product.

Waste reduction

- Amount of virgin materials used in production/contained in product.
- Amount of post-consumer recycled content used in production/contained in product.
- Design features to reduce or eliminate waste.
- Reusability of production waste, used materials or construction waste.
- Recyclability of production waste, used materials or construction waste.
- Extent to which systems can be disassembled at the end of service life for reuse or recycling.
- Reusability of disassembled components without further processing.
- Recyclability of disassembled components without further processing.
- Amount of packaging.
- Recycled content in packaging.
- Recyclability of packaging.
- Amount of waste at the end of service life.
- Extent of biodegradable waste at the end of service life.
- Amount of toxicity related to waste generated.

Embodied energy

- Energy required to extract, process and deliver raw materials.
- Energy required to manufacture product.
- Energy used to transport product to the work site.

Indoor air quality

- Type and volume of hazardous or toxic fumes or vapours emitted ("off-gassed") by the product during its lifetime.

Durability

- Anticipated lifespan of product.
- Ease of repair or parts replacement (including local availability of parts).

B) SERVICES

Bid Qualifications and/or Contract Clauses

- Willingness of vendors, contractors, subcontractors and bidders to certify amounts of recovered and recycled material in building supplies and to separate wastes by type for recovery and recycling or use building materials recycling services.
- Approach of suppliers, designers and contractors to environmental issues and concerns.
- Substitution of non-hazardous materials by contractors, suppliers and designers.

Resources

Canadian Window and Door Manufacturers Association. *Voluntary Certification Program.*

Royal Architectural Institute Of Canada. *Environmentally Responsible Design.*

Pennsylvania Department of General Services. *Policy on insulation.*

Virginia Department Of Environmental Quality. *Waste reduction fact sheet.*

City Of Toronto Management Services Department. *Purchasing and Material Supply Division - Environmental Initiatives.*

Office of Federal Environmental Stewardship, Environment Canada. *The Environmentally Responsible Construction and Renovation Handbook.* 1995.

St. John, Andrew, Editor. *The Sourcebook for Sustainable Design: A Guide to Environmentally Responsible Building Materials and Processes.* Boston: Architects for Social Responsibility, 1992.

Tips

- Look for EcoLogo^{M}-certified products or equivalent.
- Consider products certified by the Build Green Program: (416) 822-4111.
- For more information, contact the Green Building Information Council at: (613) 232-7018.

Vehicles and Vehicle Maintenance Services

Overview

The federal government purchases almost $102 million worth of vehicles and trailers per year, and makes about $561 million worth of contractual commitments for fuels, lubricants, oils and waxes. In Canada, close to 15% of total carbon dioxide (a greenhouse gas) emissions from fossil fuels come from automobiles and light trucks. Vehicle maintenance does present opportunities to conserve resources and reduce waste. For example, products can be chosen that use reclaimed materials. Contracts for vehicle maintenance should include an assessment of how the work will be carried out and what will happen to the waste products. For a truly sustainable approach, alternatives to vehicle use should be addressed. In June 1995, Canada passed the Alternative Fuels Act requiring federal departments, agencies and Crown corporations to increase the use of alternative fuelled vehicles (ethanol, methanol, propane, natural gas, hydrogen and electricity). The Act requires Treasury Board to follow a schedule, beginning in 1997, to ensure that by the year 2000, 75% of eligible new vehicles will use alternative fuels.

Vehicle Purchasing

Vehicle Considerations

- ✔ Select models with greatest fuel efficiency that meet minimum performance standards.
- ✔ Consider vehicles that use alternate fuels (ethanol, methanol, propane, natural gas, hydrogen and electricity) where possible or mandatory. See the federal Alternative Fuels Act.
- ✔ Ensure that a new vehicle conforms to federal and provincial standards for emission control and fuel consumption.
- ✔ Air conditioning or high power models should only be authorized if they meet a clear operational requirement.

Vehicle Maintenance

Use of Re-manufactured/Recycled Products

- ✔ Lubricants should be EcoLogo^{M}-approved wherever available.
- ✔ Re-refined motor oil that is EcoLogo^{M}-certified should be used in all vehicles. Purchase oil in recyclable containers and arrange for supplier to pick up containers for recycling.
- ✔ Retread tires should be used whenever feasible and services should be contracted to retread existing tire casings.
- ✔ Re-manufactured gasoline engines should be considered for trucks and re-manufactured diesel engines for heavy duty trucks. Use re-manufactured starters and alternators for existing vehicles.
- ✔ Use reclaimed engine coolant (consider on-site facilities).

Other Environmental Considerations

- ✔ Require contractors to have oil filters recycled.
- ✔ Buy windshield washer fluid and antifreeze in concentrated form and in bulk recyclable containers.

Resources

Government of Canada, 1995. *FleetWise: A Manager's Guide to Greening the Fleet.*

Federal Alternative Fuels Act, 1995.

Environmental Choice Program guidelines.

RIS Toronto Resource Center. *Guide to institutional purchasing.*

City of Toronto Management Services Department, Purchasing and Material Supply Division - Environmental Initiatives.

Minnesota Department Of Administration. *Policy on purchasing for the state transportation department.*

Denver Green Fleets Program. *Policy on purchasing and trip reduction.*

Pennsylvania Department of General Services. *Policy on re-refined oils/lubricants.*

Alberta Public Works Supply and Services. *Green products and practices fact sheet.*

Transport Canada Green Workplace Commitment.

State of New York. *Tender documents for purchases of vehicles, antifreeze and lubricating oils.*

Furniture

Overview

The federal government is one of the largest single purchasers of goods and services in Canada. In 1994 it budgeted about $142 million towards the purchase of new office furniture. Furniture can put strain on the environment through the use of exotic woods, improper use of chemicals in production, and off-gassing. The furniture industry is addressing environmental concerns in office furniture design and manufacturing. Canada's Environmental Choice Program recently produced guidelines on office furniture.

Minimize Use of Toxins

- ✔ Furniture should be EcoLogo^{M}-certified or meet Environmental Choice Program guidelines where available.
- ✔ Manufacturers should not use solvent-based adhesives.
- ✔ Foams and plastic components should not contain CFCs or HCFCs.
- ✔ Manufacturers should minimize the use of chemicals that result in off-gassing and/or volatile organic compound (VOC) emissions.
- ✔ Manufacturers should use adhesive products that are EcoLogo^{M}-certified or meet Environmental Choice guidelines.
- ✔ Manufacturers should not use chemicals that are toxic or irritating to humans in the production, treatment, installation or cleaning of fabric components.
- ✔ Paints should not contain solvents or formaldehydes.
- ✔ Preference should be given to parts that are painted using power coating methods.
- ✔ Preference should be given to metal components that are not electroplated.
- ✔ Preference should be given to manufacturers who have environmental management systems (e.g. CSA Z750 or ISO 14000).

Encourage Waste Reduction

- ✔ Packaging should be minimized by implementing a take-back program with the supplier.
- ✔ Products should be transported in bulk.
- ✔ Packaging that cannot be returned to the supplier should be recyclable in the existing recycling program and should have post-consumer content.
- ✔ Recyclable materials should be built into the design of the product wherever possible and applicable.
- ✔ Office furniture should be designed so that materials from major components can be disassembled effectively for reuse or recycling.
- ✔ Wear-susceptible parts should be replaceable.
- ✔ Preference should be given to recycled fabric.
- ✔ All major plastic components should be stamped with information about the resin type using the Society of Plastics Industry (SPI) plastic coding system to facilitate recycling.
- ✔ Preference should be given to suppliers who take back used furniture for repair and refurbishing.

Encourage Preservation of Biodiversity

- ✔ Wood parts should not contain wood that is considered exotic or listed by the Convention on International Trade in Endangered Species on Flora and Fauna (CITES).
- ✔ Wood should be used from sustainable managed forestry sources.
- ✔ Wood should not come from old growth forests.
- ✔ The manufacturer should be prepared to provide documentation about the management and harvesting practices of the wood in use.

Resources

Environment Canada. June 1994. *Environmental Specifications for Office Furniture.* Office of Environmental Stewardship, Hull, Quebec.

St. John, A. ed. November 1992. *The Sourcebook for Sustainable Design: A Guide to Environmentally Responsible Building Materials and Processes.* The Boston Society of Architects, Boston, Massachusetts.

Schourer, V. 1993. *The Interior Concerns Resource Guide.* The Interior Concerns Publication, Mill Valley, California.

State of Washington. December 1989. *Indoor Air Quality Specifications.* Department of General Administration, Washington.

Office of Federal Environmental Stewardship. Environment Canada. *Furniture Checklist.*

Tips

- Before purchasing, find out if existing furniture can be refurbished or if surplus furniture is available elsewhere.
- Refurbishing can result in cost savings and reduce potential off-gassing.
- Deliveries of new office furniture should be made just before a weekend to protect staff from initial off-gassing.
- Conduct a life cycle cost (LCC) assessment to determine the long-term costs associated with maintenance and replacement before deciding upon environmentally preferred furniture and fixtures over conventional ones.

Computers and Printers

Overview

Computers and other office equipment can account for up to half of the electricity consumed in a modern office building. This can be reduced significantly through energy- efficient initiatives, such as purchasing energy saving computers and turning off equipment at night. Spurred by the Energy Star program, developed in the United States to set standards and evaluate energy conservation, most major computer companies have advanced more energy-efficient products. A single Energy Star computer and monitor can save up to $52 worth of energy annually and an Energy Star printer can save up to $35 annually. The Canadian counterpart to Energy Star is the Power Smart evaluation program.

Reduce Energy Consumption

- ✔ Computers should comply with the new (1995) Energy Star guidelines and bear the Energy Star logo.
- ✔ The computer should have power-saving features (Energy Star new (1995) low-power model guidelines for computers).
- ✔ The monitor should consume 8 watts or less when conforming to the VESA-DPMS "off" mode.
- ✔ The printer should have power-saving features (Energy Star low-power mode for printers is 30 watts for 1-7 pages per minute; 45 watts for 15 pages and more per minute) or an external power-saving device.
- ✔ The printer should comply with the Power Smart Program and bear the Power Smart logo.
- ✔ Ensure monitors are capable of powering down when connected to the PC.
- ✔ Consideration may be given to features that enable the user to change the power-down settings.
- ✔ Preference should be given to computers that do not disconnect from a network when in sleep mode.
- ✔ Preference should be given to ink jet printers as opposed to laser printers where laser quality is not essential.
- ✔ The manufacturer should provide a copy of the Memorandum of Understanding established with the U.S. Environmental Protection Agency (EPA).

Encourage Waste Reduction

- ✔ The computer should be upgradable.
- ✔ Computers should be easily dismantled to encourage reuse, refurbishing or recycling.
- ✔ The supplier should offer a trade-in program to enable the computer to be refurbished or recycled.
- ✔ The toner cartridges for printers should be reusable/refillable.
- ✔ Consider whether the computer or printer contains recycled material.
- ✔ Packaging should be minimized by implementing a take-back program with the supplier.
- ✔ Packaging that cannot be returned to the supplier should be recyclable in the existing recycling program.

✔ Preference should be given to printers that print on both sides of the paper and can handle paper containing high amounts of recycled content.

Resources

Environmental Partners Program. 1995. *Office Green Buying Guide.* Washington, D.C.

Green Seal. ongoing. *Choose Green Report.* Washington, D.C.

Natural Resources Canada 1994. *Guide to Buying and Using Energy Efficient Office Equipment.* Ottawa, Canada.

Public Works and Government Services Canada. *NSTL/ SIPSS Benchmark Report: Category 3.OG - ISA 486DX/66 Energy Star Compliance.* Ottawa, Ontario.

USEPA. January 1995. *Purchasing An Energy Star Computer.* Washington, D.C.

Office of Federal Environmental Stewardship, Environment Canada. *Powering Down the Office.*

For information on the Energy Star program, call: (202) 775-6650 or use the following internet address: http://www.epa.gov/docs/GCDOAR/EnergyStar.html

For information about the Power Smart Program, call: (604) 688-4637 or use the following internet address: http://www.powersmart.ca/search html

A guidebook on Energy Efficiency can be obtained from Natural Resources Canada. Contact Jim Clark at: (613) 947-1948 or use the following internet address: http://hypernet.on.ca/Nrcan

Tips

- The lowest energy consuming monitor is a LCD monochrome backlit, followed by a LCD colour-active matrix, and then by a monochrome CRT.
- Laptops use up to 99 percent less energy than desktop computers.
- Ink jet printers use up to 99 percent less energy when printing than laser printers.
- The lifetime of a computer can be extended 10 times by turning it off at night and weekends.

Photocopy Machines

Overview

Photocopiers consume more energy than any other piece of office equipment (i.e. computers, laser printers, fax machines). In July 1995, photocopiers were incorporated into the U.S. Environmental Protection Agency's (EPA) Energy Star evaluation program, which requires photocopiers to have a built-in feature that automatically turns off the photocopier after a period of inactivity. This feature can reduce energy consumption by two-thirds that of conventional copiers. Photocopiers that copy double-sided save both resources and money.

Reduce Energy Consumption

✔ Photocopiers should bear the Green Seal, be EcoLogo^{M}-certified where available, meet Environmental Choice Program guidelines, and/or comply with the U.S. EPA Energy Star program and bear the Energy Star logo.

✔ Photocopiers should be equipped with an energy-saver feature that acts as a power down or standby function if not in use over a period of time.

✔ The manufacturer should provide a copy of the Memorandum of Understanding established with the EPA.

✔ Power rating should be provided in five modes: plug-in, warm-up, printing, idling and energy saver. Photocopiers should meet the energy efficiency requirements documented by the Green Seal program (1995) as in Table A:

Encourage Waste Reduction

✔ The photocopier should print double-sided and be capable of using paper with high amounts of recycled content.

✔ Preference should be given to photocopiers with automatic paper-size selection to reduce paper waste.

✔ Preference should be given to photocopiers with automatic default systems that return the selection guide to one copy, etc.

✔ The toner cartridges should be reusable/refillable.

✔ Packaging should be minimized by implementing a take-back program with the supplier.

✔ Packaging that cannot be returned to the supplier should be recyclable in the existing recycling program.

Table A: Tier 1 Criteria
(effective July 1, 1995 to June 30, 1997)

Copier Speed (copiers per minute)	Off Mode and Off Mode Default Time	Automatic Duplex Mode
Low (1 < cpm < 20)	< 5 W after 30 minutes or less	NA
Medium (20 < cpm < 44)	<40 W after 60 minutes or less	Default
High (44 < cpm)	<40 W after 90 minutes or less	Default

Tier 2 Criteria
(effective July 1, 1997)

Copier Speed (copiers per minute)	Low-Power Mode & Recovery Time	Off Mode & Default Time	Automatic Duplex Mode
Low (1 < cpm < 20)	NA	< 5 W after 30 minutes or less	NA
Medium (20 < cpm < 44)	3.85 x cpm + 5 Recovery time = 30s	< 10 W after 60 minutes or less	Default
High (44 < cpm)	3.85 x cpm + 5 Recommended Recovery time = 30s	< 15 W after 90 minutes or less	Default

- ✔ The photocopier should be easily dismantled to encourage reuse, refurbishing or recycling.
- ✔ The supplier should offer a trade-in program to enable the photocopier to be refurbished or recycled.
- ✔ Consider whether the photocopier contains recycled material.

Resources

American Council for an Energy-Efficient Economy (ACEEE). 1994. *Guide to Energy-Efficient Office Equipment.* Berkeley, California.

Environmental Partners Program. 1995. *Office Green Buying Guide.* Washington, D.C.

Environmental Choice Program. *1995 Photocopiers ECP-46-93 (Draft).*

Green Seal. April 1995. *Environmental Criteria for Office Photocopier Machines. Washington, D.C.*

Green Seal. ongoing. *Choose Green Report.* Washington, D.C.

USEPA. April 1995. *Introducing ... Energy Star Copiers.* Washington, D.C.

Office of Federal Environmental Stewardship, Environment Canada. *Cost-Benefit Analysis.*

Natural Resources Canada. *Guide to Buying and Using Energy Efficient Office Equipment.* 1994. Ottawa.

Tips

- Power ratings on photocopiers will enable you to compare energy consumption of different photocopiers.
- Choose the size of photocopier that best meets your photocopying needs because energy use increases with copy volume capability and speed.
- Use one of the paper trays to store used paper for draft copies.
- Small personal copiers can consume as little as one quarter the energy of a medium-sized photocopier.
- A life cycle cost assessment will help to identify long-term savings through reduced energy costs.
- Energy consumed by computers can be significantly reduced by turning systems off at night and weekends.
- Information on the Energy Star program specific to photocopiers is available at the following internet address: http://www.epa.gov/docs/GCDOAR/EnergyStar.html, or call (202) 775-6650.

Fax Machines

Overview

Ten years ago office equipment, including fax machines, photocopiers, computers, and printers, accounted for less than one percent of total energy consumption. Today they can use up to 30% of energy. The widespread use of fax machines has also increased paper consumption and, as a result, has generated more solid waste. Opportunities exist to conserve energy and paper and to reduce waste.

Reduce Energy Consumption

- ✔ Fax machines should be EcoLogo^{M}-certified and meet Environmental Choice Program guidelines.
- ✔ The fax machine should be equipped with an energy-saver feature that offers a low standby function if not in use over a period of time.
- ✔ The low standby function should use 15 watts of energy or less.
- ✔ Preference should be given to energy-efficient ink jet machines.

Encourage Waste Reduction

- ✔ Preference should be given to built-in fax modems where practical.
- ✔ The fax machine should use plain sheet paper rather than thermal roll paper, which is difficult to recycle owing to the chemical coating.
- ✔ Preference should be given to fax machines that accept paper containing high recycled content.
- ✔ Packaging should be minimized by implementing a take-back program with the supplier.
- ✔ Packaging that cannot be returned to the supplier should be recyclable in the existing recycling program.
- ✔ Use of rechargeable toner cartridges should not nullify the warranty or service agreements.
- ✔ Preference should be given to ink jet fax machines, followed by laser machines with an automatic duplexing feature.
- ✔ The fax machine should be easily dismantled to encourage reuse, refurbishing or recycling.
- ✔ The supplier should offer a trade-in program so that the fax machine can be refurbished or recycled.
- ✔ Consider whether the fax machine contains recycled material.

Resources

American Council for an Energy-Efficient Economy (ACEEE). 1994, *Guide to Energy-Efficient Office Equipment.* Berkeley, California.

Environmental Partners Program. 1995. *Office Green Buying Guide.* Washington, D.C.

Green Seal. *Choose Green Report.* Washington, D.C.

Harmony Foundation. 1991. *Workplace Guide: Practical Action for the Environment.* Ottawa, Ontario.

Natural Resources Canada. *Guide to Buying and Using Energy Efficient Office Equipment.*

Office of Federal Environmental Stewardship. *Cost-Benefit Analysis.*

Tips

- Consider installing a fax modem for staff so that they can send faxes directly from their computer and thereby reduce paper and wear on the fax machine.
- Use fax transmission stickers, wipeable fax sheets or the backs of used paper as cover pages when sending faxes.
- Information on the Energy Star program is available at the following internet address: http://www.epa.gov/docs/GCDOAR/EnergyStar.html, or call (202) 775-6650.

Office Paper Products

Overview

Paper is one of the government's largest continual purchases. About $39 million worth is bought annually. This offers one of the greatest opportunities for government agencies to support and promote the recycling market by purchasing paper containing post-consumer recycled content and by recycling used paper.

Increase Recycled Content

- ✔ Paper products should be EcoLogo^{M}-certified and meet Environmental Choice Program guidelines.
- ✔ Paper products should bear recycled content information, where applicable.
- ✔ Suppliers should provide proof of compliance with environmental programs (i.e. Environmental Choice, Green Seal).

✔ Preference should be given to higher post-consumer recycled content where performance standards are met.

Encourage Waste Reduction

✔ Shipments should contain minimal packaging or packaging that can be sent back to the supplier, reused on site or recycled in the existing recycling program.

✔ Paper products should not contain coatings or laminate, which make them difficult to recycle.

✔ Manufacturers and suppliers should adhere to the policies and targets of the National Packaging Protocol and the Code of Preferred Packaging Practices.

✔ Non-recyclable bindings, adhesives and colours should be avoided.

Encourage Pollution Prevention

✔ All emissions should be controlled to conform with federal or provincial/state regulations whichever is more stringent.

✔ Paper products should be non-chlorine-bleached.

✔ Envelopes should contain water-based glues and have no plastic or cellophane windows, which may be difficult to recycle.

✔ If bleaching is unavoidable, oxygen or hydrogen bleaching processes are acceptable.

✔ All paper products should not contain wood from unsustainable forestry programs or "old growth" timber.

Resources

British Communications. June 1993. *BT Environmental Specifications for Paper Procurement.* London, UK.

Environment Canada. October 1992. *Canadian Environmental Protection Act* - Section 8.(1) (b).

Governments Incorporating Procurement Policies to Eliminate Refuse (GIPPER). *GIPPER's Guide to Environmental Purchasing.* Toronto, Ontario. 1995 edition.

Harmony Foundation. 1991. *Workplace Guide: A Practical Action for the Environment.* Ottawa, Ontario.

Metropolitan Toronto. 1993. *A Guide to Institutional Purchasing.* Toronto, Ontario

United States Environmental Protection Agency. May 1995. *Recovered Materials Advisory Notice.* Washington, DC

Environmental Choice Program guidelines.

Tips

- Before purchasing large quantities of new paper, test a small batch in different areas and with different office equipment.
- The Environmental Choice Program is developing multi-criteria guidelines for fine paper, converted paper and coated paper. ECP will evaluate the manufacturing process including chemical use, effluent discharges, toxicity.

Lights and Light Bulbs

Overview

Many programs have been introduced to promote energy conservation in government office buildings. This is an encouraging sign considering that lighting alone consumes 40 to 60% of energy used in an office building. One way to reduce energy consumption is to install energy-efficient light bulbs and lamps.

Energy Conservation

✔ Light fixtures should be EcoLogo^{M}-certified and meet Environmental Choice Program guidelines, wherever possible.

✔ Use bulbs/lamps that provide the minimum light standard for the task, at the lowest cost over the life cycle.

✔ Electronic ballasts are preferred wherever possible.

✔ Use compact fluorescent bulbs or tube fluorescents wherever possible.

✔ Buy fixtures with replaceable components. Reuse ballasts.

Resources

The Body Shop. April 1995. *Environmental/Ecological Guidelines for Buyers.*

Harmony Foundation. 1991. *Workplace Guide: Practical Action for the Environment.* Ottawa, Ontario.

Environmental Choice Program Guidelines.

"The GIPPERS's Guide to Environmental Purchasing." 1995 edition.

Ontario Hydro. *Lighting Reference Guide.*

Sample Procurement Policies

Overview

The federal government has a general material management policy through Treasury Board that makes the following reference to the environment:

"It is government policy that departments plan for, acquire, store, transport and dispose of materiel in a manner that supports government environmental objectives. Materiel and line managers must include environmental considerations in all aspects of managing materiel, from the planning phase through acquisition, use and disposal of material."

Some departments, such as Environment Canada, Transport Canada, Statistics Canada and the House of Commons have moved one step further by adopting new policies or amending existing departmental policies to give materiel and line managers clearer direction on environmental considerations when purchasing products and services. These departments have enjoyed the greatest degree of success in green procurement. However, the majority of federal departments and most organizations in other sectors have not yet taken this next step.

A model green procurement policy, based on all of the policies examined by the Task Force, can serve as a useful tool. A model policy should contain at least the five following distinct parts:

1. Vision Statement

A vision statement clearly pinpoints the purpose and reasons for embracing environmental procurement. It should be clear, concise and goal-oriented. It is not sufficient alone as a policy, but rather should set the tone right at the start of a policy. It should be communicated clearly to employees and the supplier. The following serve as strong examples:

> *The Quaker Oats Company of Canada Limited believes that a healthy environment and a healthy economy go hand in hand. To this end, we will integrate economic and environmental decision-making in all aspects of our business planning and operations, including our choice of suppliers of materials and services.*
>
> *(see a sample of the full policy in Table 1)*

> *Xerox is committed to the protection of the Environment and the Health and Safety of its Employees, Customers and Neighbors. This commitment is applied worldwide in developing new products and processes.*
>
> *We, at Black and Decker Canada, are committed to a safe and healthy environment and believe this to be of prime importance to our employees, their families, our communities and our customers. To this end, we will ... [at this point a list of objectives appears].*

2. General Policy Description

A general description of the policy should follow the vision statement. It should be a blanket statement of purpose regarding the environment and decision-making in procurement. Following are specific examples:

> *It is Transport Canada's policy that managers will ensure that their activities and decisions have the least possible negative impact on the environment.*
>
> *From the House of Commons: In order to increase the awareness and use of environmentally sound products, the responsible manager, in co-operation with the Purchasing Branch, shall regularly review contracts, standing offers and tender specifications for goods and services to ensure that wherever economically justifiable specifications provide for the use of products and services ...[a list of generic criteria appears]*
>
> *GIPPER Statement of Principles: In order to contribute to waste reduction and to increase the development and awareness of environmentally sound purchasing, acquisitions of goods and services will ensure that, wherever possible, specifications are amended to provide for expanded use of durable products, reusable products and products (including those used in services) that contain the maximum level of post-consumer waste and/or recyclable content, without significantly affecting the intended use of the product or service. It is recognized that cost analysis is required in order to ensure that the products are made available at competitive prices.*

Table 1

The Quaker Oats Company of Canada Limited

Contract Manufacturers, Packagers and Business Associates

Environmental Policy

The Quaker Oats Company of Canada Limited believes that a healthy environment and a healthy economy go hand in hand. To this end, we will integrate environmental decision-making in all aspects of business planning and operation, including our choice of business associates.

To this end we require that Contract Manufacturers or Packagers and Business Associates of Quaker Canada show appropriate commitment to Environmental responsibility by managing their activities as to meet or exceed all relevant Environmental Laws and Regulatory requirements.

Accordingly it is required that Contract Manufacturers and Packagers and Business associates of Quaker Canada:-

- accept the general principle of operating as good environmental citizens,
- be open to an environmental appraisal by Quaker Canada,
- inform Quaker Canada immediately of any Environmental incidents which may impact Quaker Canada including regulatory compliance or public concern issues.

Quaker Canada reserves the right to discontinue Contractual Agreements with any Contract Manufacturer or Packager or Business Associate who is not in compliance with Environmental Laws and Regulations.

Certification of Agreement with Environmental Policy.

_____Signed _____Dated

Name and Title _____ _____

3. Generic Criteria Applicable to All Procurement

The policy should refer to environmental objectives that may apply to all operations and are consistent with an Environmental Management System (EMS) or principles of sustainable development. The generic criteria should focus on waste reduction, energy conservation, 3Rs hierarchy, emissions reduction, evaluation of production processes and compliance with regulations, legislation and voluntary guidelines.

Further examples follow:

> *Quaker Oats reserves the right to discontinue Contractual Agreements with any supplier who is not in compliance with Environmental Laws and Regulations.*

> *From the County of Volusia, Florida: All procurements of energy consuming products shall also take into consideration the amount and types of energy to be used, the potential pollution effects, and alternative energy sources during specification development.*

> *From King County, Washington: All Departments, Offices, and Agencies shall use, and require their contractors and consultants to use, products manufactured with the maximum practicable amount of recovered material, especially post-consumer material.*

4. Product-Specific Guidelines

The model policy can be assembled as a package and include specific guidelines in an appendix. Environment Canada's policy has two appendices; one lists all of the Environmental Choice Program guidelines, and another lists four specific target areas for green procurement and outlines criteria specific to those areas. The Body Shop includes a number of product and service guidelines in appendices to its procurement policy.

Keep information specific to the product out of the policy itself. The information is bound to change and it is usually much more difficult to change a policy than to alter procedures or guidelines. In fact, the policy should clearly indicate that product-specific guidelines will be updated as needed.

5. Background Information

Background information should explain the organization's reasons for adopting environmental criteria. This information should be separate from the rest of the policy — either as an appendix or a preamble. It is a useful addition because it can help to ensure that employees and senior management stay committed to the policy. The State of Minnesota's preamble to its generic green procurement policy consists of "whereas" clauses:

> *Whereas, the volume of material disposed of in waste facilities has been increasing annually, and,*

> *Whereas, it is becoming increasingly difficult to site new landfills and other waste facilities, and, ...*

Product/Supplier Verification Methods and Sample Forms

Overview

Increasingly purchasers want to verify the environmental claims made by their suppliers. Verification procedures have been developed by individual organizations and third-party certification groups, such as the Environmental Choice Program, for product and service claims. A further trend is to look beyond products and services and take into account how a company operates and incorporates effective environmental management practices. New programs such as the ISO 14000 series and the Canadian Standards Association's Z750 will help to standardize environmental management practices in the future. This section highlights key elements of these three approaches and provides some samples.

1. Organizational Initiatives

Verification forms can be used to evaluate the environmental attributes of a product or service and/or the environmental performance and claims of the product manufacturer or service company.

Product or service verification forms

Environmental verification forms or checklists can be general or specific to a product. They should include at least the following elements:

- an acknowledgment that the product is certified by an independent eco-labelling organization;
- the level of recycled content (post-consumer and pre-consumer);
- the life expectancy of the product (related to durability and warranty issues);
- notification of chemical or harmful ingredients in the product;
- the level of packaging associated with the product; reparability and recyclability of the product after its useful life;
- certification by the supplier that the information provided is accurate; and
- levels or rate of consumption/input of resources (i.e. energy, water).
- Information provided by the supplier should be accompanied by supporting documentation and signatures of executive officer(s) certifying the accuracy of the information.

A sample general verification form is shown in Table 2, provided by G.I.P.P.E.R. (Governments Incorporating Procurement Policies to Eliminate Refuse), and a more detailed form is shown in Table 3, provided by Human Resources Canada (formerly Employment and Immigration Canada).

Environmental Performance Verification Forms

Traditionally companies have developed their own verification forms to assess the environmental commitment and performance of a supplier or manufacturer. This method could change significantly in the future with the establishment of more standardized Environmental Management Systems.

Performance verification forms cover a number of activities, including:

- development of an environmental policy statement;
- involvement by senior management and staff in environmental programs;
- development of an environmental management system and status;
- employee training efforts;
- management of chemicals and hazardous materials;
- acquisition of certificate of approvals and permits;
- monitoring of emissions, effluents, and wastes;
- resource conservation and product stewardship efforts; and
- environmental compliance.

Bell Canada is currently evaluating a verification form (see Table 3) for its suppliers.

Quaker Oats also requires the supplier to sign a statement confirming its commitment to act in an environmentally responsible manner and to comply with all relevant environmental laws and regulations.

2. Environmental Verification Programs

A number of third-party verification programs have emerged over the past several years to promote standardization of environmental claims for products and services. Their evaluation methods are described in greater detail in chapter one of this report. Leading groups are listed with contact information in the Directories section.

Eco-Labelling Programs

Two key eco-labelling programs are the Environmental Choice Program in Canada, now managed by TerraChoice Environmental Services Inc., and the Green Seal program in the United States. Both programs test products and services against previously developed environmental guidelines. Products must meet or exceed minimum standards to carry the Environmental Choice logo or the Green Seal logo. Several other countries operate similar eco-labelling programs.

Two parallel programs measure energy conservation: Power Smart in Canada, and Energy Star in the United States. These programs set energy conservation standards for designated products and carry out the evaluation. Products and services that meet or exceed their standards are awarded the program's logo or seal of approval.

For further information contact:

The Environmental Choice Program
Ottawa, Ontario
(613) 247-1900

The Green Seal Program
Washington, D.C.
(202) 331-7337

The Power Smart Program
Vancouver, British Columbia
(604) 688-4637

The Energy Star Program
Washington, D.C.
(202) 775-6650

Buy-Recycled Alliances

An alliance of individuals and groups interested in promoting the use of recycled content products was first conceived and established in the United States through the non-profit industry-led Buy-Recycled Business Alliance. Canada followed in 1994 with the Canadian Buy-Recycled Alliance (CBRA). Members are committed to purchase products containing recycled content and to incorporate recycled materials in manufacturing products.

For further information contact:

Canadian Buy-Recycled Alliance
Toronto, Ontario
(416) 594-3461

Buy-Recycled Business Alliance
Washington, D.C.
(202) 625-6406

Sustainable Forestry Programs

The Forest Conservation Program developed by Scientific Certification Systems, a multi-disciplinary scientific organization in California, is gaining interest among companies and organizations concerned about sustainable forestry management. The program measures forest companies' environmental performance and forestry management. Certification is awarded to companies that achieve a minimum score on its evaluation criteria. See Chapter One of this report for more details.

For further information contact:

Scientific Certification Systems
Oakland, California
(510) 832-0359

3. Future trends

Environmental Management Systems Gain Ground

In the future, Environmental Management Systems (EMS) should become a common feature of a company's operations. The Canadian Standards Association (Sept. 1994) defines an EMS as:

> *"an ongoing, interactive planning process that consists of defining, documenting and continuously improving the required capabilities, namely: resources, training, information systems, operational processes and procedures, documentation, measurement, and monitoring criteria."*

An EMS places the onus on the corporation to evaluate, monitor and regulate its activities to ensure that they contribute to a healthier environment.

An EMS targets the following corporate activities:

- environmental policy and mission statements;
- support of environmental policies and programs by senior management and Board of Directors;
- assessment of environmental impacts of activities;
- procedures to register and monitor legal and other requirements;
- procedures to develop and monitor environmental objectives and goals;
- accountability and responsibility for environmental performance;
- procedures to effectively communicate environmental issues internally and externally;
- supportive environmental documentation and reporting procedures;
- appropriate training program(s) for staff;
- emergency procedures; and
- environmental audits and management reviews.

ISO 14000 Series

To help companies design an effective EMS, several efforts are under way to develop a more standard and recognized approach. The International Organization for Standardization (ISO) is developing the ISO 14000 series, a comprehensive approach to sound environmental management.

The ISO 14000 series includes the following new environment standards:

Environmental Management Systems (series 14000 and 14001)

Environmental Auditing (series 14010, 14011, 14012)

Environmental Labelling (series 14024)

Life Cycle Assessment (series 14040)

Environmental Aspects in Product Standards (series 14060)

The EMS series is expected to be finalized in 1997, giving companies the opportunity to undergo vigorous evaluation to become an accredited 14000 member.

Other similar programs include:

British Standards - BS 7750 Specification for Environmental Management Systems; and

Canadian Standards Association - Z750-94 A Voluntary Environmental Management System.

In the future, a simple question on EMS certification will help purchasers to determine whether a company has achieved a standardized and recognized level of environmental performance. This will help to establish a level playing field among companies and a basis for confirming minimum environmental performance standards for purchasing.

Table 1: Governments Incorporating Procurement Policies to Eliminate Refuse (GIPPER)

Verification of Environmentally Sound Attributes of Product Content

This document forms part of our quotation number: _____

This form is intended to establish environmentally sound attributes of product content and/or certification of product by EcoLogo Symbol. The firm assumes all responsibility for integrity of the information provided.

Product Name:

1. Product carries EcoLogo Symbol: ❑ Yes ❑ No ECP Guideline No. (s) _____
*** Complete item 2 or 3 or 4 as applicable***

2. Product Recycled Content is made of: *** Complete if answer to item 1 is No***

Post Consumer Material		Recovered Material	
% Composition	Type of Material	% Composition	Type of Material

DEFINITIONS

Post Consumer Material means only products which have served their end uses and which have been separated or diverted from wastes for collection, recycling and disposition.

Recovered Material means materials and by-products recovered or diverted from waste but does not include materials and by-products generated from and commonly reused within an original process such as mill broke or processing scrap. Recovered Paper Material may include waste generated in envelope making, trimmings, rejects in printing operations, butt rolls, mill wrappers, obsolete inventories and unused stock.

3. Product ***Complete and submit supporting evidence only if answer to item 1 is No***

a) Conforms to: _____ Performance Standards (print name of standard)
Set By: _____ (print name of government, issuing agency, etc.)

b) Meets specific environmentally sound attributes:

Attributes	Environmental effects

c) Test Data attached; (Specify):

4. Environmental Seal of Approval: **EcoLogo** The official Mark of Environment Canada is an Environmental Seal of approval awarded by the Environmental Choice Program (ECP) to products or services considered environmentally preferable compared to similar products or services and carries with it a marketable environmental image.

Please answer YES or NO if your firm:

a) Applied for EcoLogo: _____ Date: _____; ECP Guidelines No.: _____

b) Plan to apply for EcoLogo: _____; ECP Guidelines No.: _____

If answer is NO, briefly state reasons:

I have knowledge to certify and do so certify that our product(s) content, certification, standards, environmental attributes and effects are as shown on this form and that, where applicable, our products content with the definitions as shown above.

Firm name:	Telephone #:
Mailing Address:	Postal Code:
Title of Person Signing:	Name of Person Signing (print):
Date:	Signature:

Table 2: Environmental Claim Statement — Employment and Immigration Canada

This Environmental Claim Statement is to be completed by the product or service supplier.
We will consider this form as a part of your product label, ie: subject to the same laws and regulations as the rest of your product label. If the space provided for additional information is not sufficient, please feel free to attach additional pages.

PRODUCT IDENTIFICATION

Supplier:

Name of Product:

Type of Product:

RESOURCE/RECYCLING CONSIDERATIONS

"Total recycled" content:

"Post-commercial" recycled content:

"Post-consumer" recycled content:

Does this product carry the Environmental Choice EcoLogo?
If yes, please provide the Ecologo certification number.

Have the environment merits of your product been verified by any other established product verification process?
If yes, please identify the verification process or group which has verified these merits.

Is our product more energy efficient than other or previous products?
If yes, please provide details.

Does the manufacture of your product use fewer resources than similar or previous models? (ie: less energy, less water, less materials used, or less waste produced during manufacturing). If yes, please provide details.

PLEASE REFER TO THE DEFINITION OF TERMS ATTACHED

What is the life expectancy of this product?

What is the appropriate method for disposing of this product after use?

Is this product partially or totally recyclable? (this will only be considered an environmental benefit if there are no geographic of economic limitations to the recycling of your product).

Can this product be upgraded? If yes, please provide details.

Please provide specific information about the product's warranty and repair schedules.

Are parts and service available in all areas of Ontario?

What is the average cost for parts and services in all areas of Ontario?

CHEMICAL PROPERTIES

Is this product considered a hazardous material (as per WHMIS legislation or the Transportation of Dangerous Goods Act)? If yes, please provide details.

Please attach a copy of the product's Material Safety Data Sheet (MSDS). *ATTACHED* *NOT ATTACHED*

Is this product toxic to humans? If yes, please identify the dose/ratio at which it is considered to be toxic.

Is this product toxic to marine life? If yes, please identify the dose/ratio at which it is considered to be toxic.

PLEASE REFER TO THE DEFINITION OF TERMS ATTACHED

Is this product flammable? If yes, please identify the conditions which should been maintained to avoid fire.

Is this product biodegradable? If yes, please identify the environmental conditions and time required for partial and complete degradation.

Are the byproducts of degradation safe for the environment?

PACKAGING CONSIDERATIONS

Please identify the packaging material used.

Total recycled* content of packaging material:
Post-commercial* recycled content of packaging material:
Post-consumer* recycled content of packaging material:

Is your packaging material designed for reuse (ie: refillable bottles, reusable plastic shipping cartons). If yes, please provide details.

Is your packaging material recyclable? (This will only be considered an environmental benefit if there are no geographic or economic limitations to the recycling of your package.)

Will you pick up packaging material and skids? If yes, please provide details.

*PLEASE REFER TO THE DEFINITION OF TERMS ATTACHED

If you use foam chips, are they water soluble?

Has your company adopted a policy of packaging reduction in accordance with the National Packaging Protocol? If yes, please provide details.

AUTHORIZATION OF SUPPLIER

NAME OF SUPPLIER:

TITLE OF SUPPLIER:

THE INFORMATION COLLECTED ON THIS FORM MAY BE ACCESSIBLE UNDER THE ACCESS TO INFORMATION ACT

_____ on behalf of _____

signature company

"THIS FORM IS PRINTED ON PAPER WHICH CONTAINS 50% RECYCLED CONTENT AND 10% POST-CONSUMER FIBRE"

DEFINITION OF TERMS

RECYCLED CONTENT is material which has been diverted from the waste stream and reprocessed. This may include household, institutional, commercial or industrial waste. Post-commercial and post-consumer wastes are both considered to be recycled content, but in house materials which are routinely reprocessed on the premises as part of the manufacturing process are not considered to be recycled content.

POST-COMMERCIAL recycled content is waste which is generated from an operation which converts an item into a consumer product. For example, the trimmings from an envelope manufacturer are the waste which is generated from the operation which converts paper into a consumer product (envelopes).

POST-CONSUMER recycled content is material which has already served its intended purpose as a consumer product and has then been diverted from the waste stream and reprocessed.
A product is considered to be RECYCLABLE if at least one third of the consumers who purchase the product have convenient access to recycling facilities through curb-side collection or drop off depots.
These definitions reflect the standards established by Consumer and Corporate Affairs. For more information regarding these standards, please refer to the "Guiding Principles for Environmental Labelling and Advertising" available through Consumer and Corporate Affairs.

Table 3: Bell Canada Procurement Standard — Environmental Impacts

Requirements – Part A

To complete this questionnaire simply enter the appropriate score for your answer in the right hand column

	Score
1. Has a written preparatory environmental review of your company been carried out? Yes (8) or No (0)	
2. Have you a written environmental policy statement signed at Company Director level? Yes (4) or No (0)	
3. Is overall responsibility for environmental issues at Company Director level? Yes (2) or No (0)	
4. Have you allocated responsibilities to implement the policy? Yes (2) or No (0)	
5. Have you allocated resources to implement the policy? Yes (2) or No (0)	
6. Do environmental issues form part of the training program for all staff? Yes (3) or No (0)	
7. Is there a mechanism in place within the company to deal with public enquiries and concerns with respect to environmental matters? Yes (2) or No (0)	
8. Have you identified and documented: a) Legislation relevant to the environmental aspects of your company's operations? Yes (2) or No (0)	
b) The significant environmental aspects and impacts, associated with your company's activities, products and services? Yes (2) or No (0)	
9. Have you set yourselves quantified objectives and targets for environmental improvements? Yes (7) or No (0)	
10. Have you a plan for implementing these objectives and targets with set timeframes? Yes (5) or No (0)	
11. Do you make the following available to the public: a) Your Environmental Policy Statement? Yes (2) or No (0)	
b) Your objectives, targets and progress on achievements? Yes (2) or No (0)	
c) Your company's listing of environmental management system? Yes (3) or No (0)	
12. Do you have a written, formal, environmental management system? Yes (3) or No (0)	
13. Does your management system include the environmental appraisal of suppliers and sub-contractors, including contractors? Yes (4) or No (0)	
14. Has the management system been implemented on: a) site basis (1) or b) a national basis (2) or c) company-wide basis (3)?	
Companies with only one site, answer c)	
15. Has an on-going environmental audit and review program been implemented? Yes (5) or No (0)	
Maximum score	**60**

Requirements – Part B

To complete this questionnaire simply enter the appropriate score for your answer in the right hand column

Score

1. Has a full life cycle environmental evaluation been carried out on the product or service your are offering:
   a) Identifying Life Cycle stages? Yes (1) or No (0) _____

   b) Identifying environmental effects? Yes (3) or No (0) _____

   c) Including measurement of significant environmental effects? Yes (3) or No (0) _____

2. Is the product or service you wish to supply free from any emissions to air or water which have an adverse environmental effect when in use or during maintenance, such as emissions of solvents: CFCs, NOx, SOx, CO, ozone, particulates, carcinogens, hydrocarbons and so on? Yes ( ) or No ( )
   If no, please supply details separately for individual assessment by Bell Canada

3. Is the product labelled to inform the user of any relevant environmental information such as disposal information? Yes (2) or No (0) _____

4. Have your package designers used the "Canadian Code of Preferred Packaging Practices" guideline, or equivalent (Specify _____), in designing the packaging? Yes (2) or No (0)

   Is the packaging for the item:

   a) The minimum necessary for protection? Yes (2) or No (0) _____

   b) Of recycled material? Yes (1) or No (0) _____

   c) Capable of being recycled? Yes (1) or No (0) _____

   d) Re-usable? Yes (2) or No (0) _____

5. Does the product contain any substances or material, that, at the end of its useful life would be classified as hazardous waste in the Canadian provinces of Quebec and Ontario? Yes ( ) or No ( ) _____
   If yes, please supply details separately for individual assessment by Bell Canada

6. Has the product been produced from recycled materials? Yes (4) or No (0) _____

7. Is the item designed for disassembly and recycling? Yes (4) or No (0) _____

8. To what extent can the product be recycled?
   (This should be both practically and economically feasible)

   Extent by weight is greater than or equal to:

   a) 20% (1) or b) 40% (2) or c) 60% (3) or d) 80% (4) or e) 100% (5) _____

9. Is there a return loop in place - an existing logistical route to return the item to the supplier or its agent for:

   a) Responsible disposal? Yes (4) or No (0) _____

   b) Recycling? Yes (6) or No (0) _____

Maximum score	**40**
Total maximum score A and B	**100**

Directories

The following directories are listed under four commonly used categories. Each serves a particular clientele and has a specific purpose.

1. Products and services that have been verified by a third party

Suppliers' products that have been certified to meet or exceed standards established by third-party verification are often listed in a directory. These include:

- Environment Canada. **EcoLogo^{M}-Certified Products Directory**. Ottawa, Ontario, 1995.
  Contact: TerraChoice Environmental Services Inc. (613) 247-1900
  This directory lists all EcoLogo^{M}-endorsed products under the Environmental Choice Program (ECP), which has established guidelines for 40 types of products, including motor oil, latex and oil-based paints, and diapers. The products must also meet industry standards of performance. All ECP criteria are established in cooperation with industry, environmental groups, and independent technical advisors. A technical agency tests all products and ensures continued compliance.

- Power Smart Inc. **Power Smart Product Endorsement Program.** Vancouver B.C., 1994.
  Contact: Moira-Ann Handford, Product Evaluation Engineer, Power Smart Power Product Endorsement Program (604) 688-4637
  The Power Smart Program classifies energy conserving products into seven categories: appliances, building envelope (caulking materials, insulation, etc.); electrical goods; hot water savers (low-flush shower heads, etc.); lighting; commercial/industrial products (high efficiency air conditioning, heaters, etc.); and miscellaneous (swimming pool covers). To obtain the Power Smart Seal, products must meet or surpass specific criteria such as established performance standards, power quality characteristics, safety standards, functional standards, and design and manufacturing standards.

  Note: This directory is not designed for the non-technical minded as it is filled with technical jargon.

- Environmental Protection Agency. **Energy Star Product Endorsement Program.** Washington D.C.
  Contact: Environmental Protection Agency, Energy Star Program, (202) 233-9114
  The EPA has established energy consumption guidelines for office equipment, including computers, printers, and facsimile machines. This directory lists all products certified with the EPA's Energy Star logo. These products must also meet industry standards of performance. EPA criteria are established in cooperation with industry, environmental groups, and independent technical advisors. The EPA tests all products and ensures continued compliance.

2. Self-certified products and services

These directories list products or services of manufacturers or suppliers who have made clear, although unverified, claims on sound environmental performance. Directories may require senior company officials to sign a claim form to "certify" that the product meets specified environmental criteria.

- Recycling Data Management Corporation. **Recycled Products Guide** (RPG). 5th Edition. 1993.
  Contact: Bob Belanger, President, Recycling Data Management Corporation (RDMC); (613) 448-2383 or 1-800-267-0707.
  The Directory provides a broad range of product information. Listings include company name, address, contact, telephone, fax, type of company (manufacturer, distributor, etc.), minimum recycled content, special remarks, and brand names.

- Canadian Buy-Recycled Alliance (CBRA). **Recycled Products Guide.** 1st Edition. 1995.
  Contact: Wendy Cook, Acting Executive Director. 1-800-945-6555 or (416) 594-3461.
  CBRA is an organization that provides a number of services including a quarterly newsletter, a membership list, access to training services, an electronic forum and a guide book that includes a products directory. The directory comes in two versions: a first national Canadian directory, which lists over 800 products and 400 companies, and a North America-wide directory with almost 6,000 products and 1,800 companies.

- Boston Society of Architects. **The Sourcebook for Sustainable Design: A Guide to Environmentally Responsible Building Materials and Processes.** November 1992.
  Contact: Richard Fitzgerald or Elizabeth Simmons, Boston Society of Architects (617) 951-1433
  The directory provides architects with useful information on alternative building products and materials available. It also lists organizations that offer insights into energy/water conservation, recycled products and innovative building technologies. The directory does not evaluate any of the building products or materials listed, however, it identifies environmental claims made by manufacturers.

- Sabourin Publishing. **The Canadian Recycling Handbook and Directory.**
  Contact: Mark Sabourin, Sabourin Publishing, (416) 423-0182.
  The directory identifies services and contacts for businesses in Ontario that are either directly involved in the environmental industry or are seeking to implement workplace waste reduction or recycling programs. In addition to listing 'who's-who' in the environmental industry in Ontario, this directory also provides information on how to conduct waste audits, design and implement waste reduction workplans, and how to implement waste recycling programs. Products that are either recyclable or are made of recycled materials have also been identified through a self-administered questionnaire.

- Canadian Environmental Enterprises. **Products & Services Buyer's Guide.** Victoria, British Columbia, 1994.
  Contact: Terry Bersord, Green Products and Services Guide (604) 361-2613
  The directory lists manufacturers and distributors of environmental products and services in some 48 categories (e.g. absorbents, balers, drum remediation, recycling equipment, spill control, etc.). Environmental businesses pay a $300 fee for the following services: placement of a 50 word ad in the directory, subscription to a monthly newsletter, a network referral service, client-specific marketing research, and open bidding system scanning.

- Center for Resourceful Building Technology (CRBT). **A Reference Guide to Resource Efficient Building Elements.** 4th edition. 1994.
  Contact: Tracy Mumma, Center for Resourceful Building Technology (406) 549-7678.
  The directory identifies building materials that meet the following principles of resource efficiency: efficient use of primary resources; use of recycled or secondary resources; energy savings in product manufacturing; provide an alternative to dimensional lumber; and durability over the life of the house. It also lists manufacturers and highlights specific building materials that exemplify an efficient use of resources through their manufacturing and application.

- The Recycling Council of Ontario (RCO). **3Rs Buyer's Guide for Business: A Guide to Technologies, Products, and Services.** February 1994.
  Contact: Clarrisa Morowski, Recycling Council of Ontario (RCO) 1-800-263-2849.
  The Directory lists products, equipment, services and waste management/environmental consultants. Although there is a plethora of environmental terms and catch-phrases, these do not help to clarify what is actually environmentally preferred. There is insufficient detail on the proportion of recycled content in a product, the relative recyclability of a product, or what is meant by "less toxic."

- Leclair and Rousseau. **Environmental by Design: A Sourcebook of Environmentally Aware Material Choices.** Volume 1: Interiors. Hartley and Marks Inc. 1992.
  Contact: Hartley and Marks Inc. Publishers (604) 739-1771
  The directory lists building products and materials that have been evaluated against a wide number of criteria within four broad categories: production, packaging and shipping, resource recovery, and social and ethical issues. The criteria include recycled content, sustainability, in-plant energy efficiency and recycling, low plant emissions, minimum installation hazards, reusable, salvageable and recyclable qualities and fair business practices and research/education programs. Using a self-administered questionnaire, manufacturers are asked to identify the environmental and human health impact of their products and materials at all stages of the life cycle, as well as the company's policies and practices.

3. Sources of general environmental information

These sources identify relevant environmental issues rather than list "green" products or services.

- American Institute of Architects. **Environmental Resource Guide**, Technology, Practice and Education. Washington D.C., 1994 (update).
  Contact: John Hope, American Institute of Architects, (202) 626-7300
  This is "recommended reading" for anyone interested in environmental and human health issues associated with the home construction industry. Some of the issues highlighted are building ecology; embodied energy; indoor air quality; technologies to conserve energy and water; and building techniques.

- Canadian Almanac & Directory. **Canadian Environmental Directory 1994/1995.** Canadian Almanac & Directory Publishing Company. 4th Edition. 1994.
  Contact: Peter Asselstine, Editor, Canadian Almanac and Directory Publishing Co. Ltd. (416) 972-6645.
  The directory lists government contacts at all levels; professional associations and agencies associated with environmental issues; legislation and regulations related to environmental conduct and quality; research funding and educational institutions; technical reference materials; and seminar/conference schedules. It includes a list of 1,000 largest Canadian companies, and an extensive range of environmental products and services. The data gives the user a cursory idea of who might offer a particular product or service. Information on company profiles includes the type of firm (i.e. manufacturing, consulting), number of staff, main contact, product/services/areas of expertise, and domestic markets served.

- Canadian Home Builders Association (CHBA). **Environmental Choices for Home Builders and Renovators.** 1994.
  Contact: John Broniek, Canadian Home Builders Association, (613) 230-3060
  The guide describes environmental issues associated with a full range of home building materials and products, including windows, doors, space and water heating systems, appliances, lighting, finishes,ventilation, and home automation. It identifies product types, performance, installation, costs, availability and marketing. An attractive feature of this guide is the inclusion of contacts and further reference materials, and use of illustrations and graphics to compare the benefits of one product over another. For example, the guide uses a bar graph to illustrate the difference between a compact fluorescent light, an energy-saving fluorescent light and the standard incandescent light bulb.

- City of Toronto. **Governments Implementing Policies and Purchasing to Eliminate Refuse (G.I.P.P.E.R): Guide to Environmental Purchasing.** 1995 Edition.
  Contact: Ann Carino, Purchasing & Material Supply Division, City of Toronto (416) 392-7313
  The GIPPER Guide is designed for all purchasing professionals. One of the stated goals of the directory is to influence government procurement in order to provide markets necessary for recovered materials. This Second Edition helps purchasers to incorporate environmental considerations into the procurement process. It suggests criteria for target product categories, including cleaning products, compost, construction and demolition materials.

- Federal Government of Canada. **Green Procurement Computer-Based Training (CBT) Course.** Version 1.0, 1995 Edition.
  Contact: Michael Calvert, Office of Federal Environmental Stewardship, Environment Canada (613) 997-8346
  The Green Procurement CBT is licensed for the exclusive use of the federal government. It serves as both a training course and a reference tool for purchasers seeking to integrate environmental criteria into every day purchasing. The course reviews legislative requirements, terms and definitions, and provides product and service examples and implementation tips. The resource sections include a glossary of terms and government programs and the reference section includes information on the Environmental Choice Program, furniture specifications and other guides and information sources.

4. Defunct or outdated directories

The directories in this section are either out of circulation, or outdated. They do, however, offer a good starting point because many of the items mentioned might still be in use. The manufacturers or service providers can be contacted for up-to-date information.

- **Directory of Environmentally Sound Products and Services.** City of Toronto in cooperation with the Association of Canadian Cities on Environmentally Sound Strategies (ACCESS). 1991.
  Contact: Ann Carino, Purchasing & Material Supply Division, City of Toronto (416) 392-7313

- Industry, Science and Technology Canada and External Affairs and International Trade Canada. **Industry and the Environment: Directory of Manufactures of Environmental Products.** Industry Canada/Foreign Affairs. 1991.
  Contact: John Mihalus, Director, Environmental Affairs, Industry Canada, (613) 954-1890.
  Six broad categories of environmental products and services are listed in the directory. They include: chemicals; heating/cooling systems and equipment; air quality equipment; sewage treatment equipment; waste management equipment; and scientific/monitoring equipment. The information is generally restricted to company name and address only. Products are not evaluated against any criteria.

- Stewart's Green Line Ltd. **The Environmental Directory.** Vancouver, B.C., 1993.
  Contact: Malcolm McFee (604) 872-5498
  The directory lists products, technologies, environmental services, manufacturers and environmental organizations. It also contains advertisements for specific environmental services and products. The products are not evaluated against any clear criteria, however, certain environmental merits are mentioned. The directory is easy to read and understand. Among its strong points are aesthetic appeal and use of post-consumer paper.

Resources

1. Generic Criteria

Bell Canada. ***Procurement Standard - Draft - Environmental Impacts.***
Contact: Rob Bickerdike, (514) 391-8869
A generic standard that questions suppliers' environmental practices and the product's impact throughout the life cycle. See Sample in Verification section of this report.

British Gas. ***Environmental Discussion Document. 20.12.93.***
Contact: K.A. Nixon, 2 Bessborough Gardens, London, SW1V 3JE. Tel: 0171 821 144/ Fax: 0171 611 2136
Questions suppliers on a set of criteria including management issues, discharges and emissions, energy and waste.

Quaker Oats Canada. ***Environmental Site Inspection Checklist.***
Contact: Frank Stewart, (705) 743-6330
A three-page series of questions for suppliers on operations and regulatory compliance.

Council on Economic Priorities. ***The Better World Investment Guide.*** 1991.
Contact: Steven D. Lyndenberg, (212) 420-1133

Council on Economic Priorities. ***Shopping for a Better World.*** 1993.
Contact: Steven D. Lyndenberg, (212) 420-1133

Environmental Protection Agency. ***Comprehensive Guideline for Procurement of Products Containing Recovered Materials: 40 CFR Part 247.*** May 1995.
Contact: Alberta Messia, Office of Environmental Federal Executive Order (202) 260-9293

State of Minnesota, Department of Administration. ***Environmentally-Aware Purchasing Checklist.*** November 1991.
Contact: Laura Milberg/ Ken Brown, (612) 215-0261
Provides a general checklist of criteria covering nine different factors to consider when evaluating products and developing bid language.

2. Examples of Specific Guidelines and Specifications

Body Shop. ***Environmental/Ecological Guidelines for Buyers.*** April 1995.
Contact: Sean Quinn, (416) 441-3202
Provides checklists to assist buyers in their daily dealings with suppliers. Guidelines cover products ranging from sea sponges to recycled paper and cars.

City of Santa Monica. ***Toxics Use Reduction Program.***
Written by Brian J. Johnson, Deborah O. Raphael.
Contact: Environmental Programs Division, (310) 458-2227
Guidelines for reducing toxic cleaning products and cleaning product specifications.

Environmental Choice Program. ***International Listing of Product and Services Guidelines/Criteria.*** Environment Canada. 23 January 1995.
Contact: Jacinthe Seguin, Kevin Gallagher (613) 952-9440
Can provide the specifications used to determine a product's eligibility for EcoLogo^{M}-certification.

Environment Canada and Public Works and Government Services Canada. ***The Environmentally Responsible Construction and Renovation Handbook.*** 1995.
Contact: Environment Canada, (819) 953-0608

Environmental Research Group. ***BEPAC Building Environmental Performance Assessment Criteria.*** 1993.
Contact: Peter Horvatis, (905) 546-0831

Governments Incorporating Procurement Policies to Eliminate Refuse. ***G.I.P.P.E.R.'s Guide to Environmental Purchasing.*** October 1992.
Contact: Ann Carino, Department of Purchasing and Supply. (416) 392-7311
Recommendations and guidelines on greening procurement for cleaning products, compost, construction and demolition materials, paint, paper and packaging.

Office of Federal Environmental Stewardship and OASIS, Government Services Canada. ***Environmental Specifications for Office Furniture.*** 1994.
Contact: Jill Bissenthal, (819) 956-1082

Public Works Canada. ***Environmental Criteria for Building Design.*** March 1993.
Contact: Craig Boyle, Environmental Services, (613) 736-2385

State of Pennsylvania. ***Requirements for the Procurement of Products That Contain Recycled Material.***
Contact: Bill McDowell, (717) 787-5733

Scientific Certification Systems. ***The Forest Conservation Program: Program Description and 1994 Operations Manual.*** 1994.
Contact: Debbie Hammel, (510) 832-1415

State of New Jersey. ***Guide to Public Procurement of Recycled Products.*** 1992.
Contact: Barbara Derer, (609) 292-2994

Washington State. ***Indoor Air Quality Specifications.*** December 1989.
Contact: David Block, Jack L. Brown, (206) 586-5952
Requirements and specifications for an acceptable standard of indoor air quality.

3. Packaging

Canadian Council of Ministers on the Environment, ***National Packaging Protocol.*** 1991.

Federation of Canadian Municipalities. ***The Packaging Waste Reduction Guide: Minimizing Solid Waste through Efficient Procurement Practices.***
Contact: Kathy Thompson. (613) 241-5221
A tool to assist purchasers in reducing packaging waste.

Washington Retail Association. ***Preferred Packaging Procurement Guidelines.*** 1992.
Contact: Patty Schwegman, (206) 943-9198

4. Procurement Policy

Alberta Government. ***Procurement Policy on Environmentally Responsible Products.*** April, 1991.

Alberta Public Works, Supply and Services. ***Continued Focus on Green Products and Practices.*** December, 1992.

City of Toronto. Management Services Department, Purchasing and Material Supply Division. ***Environmental Initiatives.*** April 1994.
Contact: Lou Pagano, Department of Purchasing and Supply (416) 392-7311
A summary of the City of Toronto's green purchasing initiative.

King County. ***Model Recycled Product Procurement Policy.*** King County Purchasing Agency. Seattle, WA.
Contact: Solid Waste Division, (206) 296-4471
Provides an example of a model recycled product policy.

Canadian Standards Association (CSA). ***Environmentally Responsible Procurement ("Green Procurement"). Z766-95.*** January 1995.
Contact: CSA., Ahmed Husseini, (416) 747-4000
Designed to help organizations implement and maintain an environmentally responsible procurement plan.

Centre for Study of Responsive Law. ***Forty Ways to Make Government Purchasing Green.*** Written by Eleanor J. Lewis, Eric Weltman. 1992.
Contact: Alicia Colver, (202) 387-8030

KPMG-UK. ***Buying Into the Environment: Guidelines for Integrating the Environment Into Purchasing and Supply.*** 1994.
Contact: Business in the Environment, 8 Stratton St. London, UK W1X 6AH, tel: 44 171 629 1600, fax: 44 171 629 1834

5. Other Guides

Federal Alternative Fuels Act, 1995.

Department of the Environment, England. ***Selling to DoE. A green guide for Suppliers of Goods and Services to the Department of the Environment.*** May 1995.
Gives advice to suppliers on how to meet DoEs environmental procurement requirements.
Contact: Ms. Jill Jennings, Department of the Environment, 43 Marsham St., London UK SW1 3PY
Tel: 171 276-8389 Fax: 171 276-8430

Government of Canada. 1995. ***FleetWise: A Manager's Guide to Greening the Fleet.***
Contact: Available at Natural Resources Canada: (819) 997-1107

Northeast Maryland Waste Disposal Authority. ***Buy-Recycled Training Manual, A Guidebook for Government Buyers and Using Agencies.***
Contact: Northeast Maryland Waste Disposal Authority, (410) 333-2730
An overview of American guidelines and legislation on green procurement. Suggests ways to increase the market for recycled products, prevent waste, and monitor programs.

Appendix A: Contacts and Publications

U.S. Contacts

U.S. States and Jurisdictions	Publications
California, Office of Procurement	"Life Cycle Costing" training program
Florida	"Development of Environmental Procurement Goals"
Illinois, Procurement Services Division	
Iowa, General Services Purchasing Department	
Michigan Southeast Michigan Council of Governments	"Buying Recycled: Procurement Assistance for Local Governments"
Minnesota	"Environmentally Aware Purchasing Checklist"; Source Reduction Purchasing Guidelines Chart"
New Jersey	"Business Guide to Recycled Products"; Guide to Public Procurement"
New York	"Energy Efficient / Conserving Contracts"
Northeast Maryland Waste Disposal Authority	"Buy Recycled Training Manual" and "State and Local Procurement Efforts for Buying Recycled Products"
Pennsylvania, Procurement Office	"Requirements for the Procurement of Recycled Materials"
Kings County, Washington	"Recycled Procurement Policy"
Massachusetts	
Portland, Oregon	"Buy Recycled Guide"; "Buy Recycled: Recycled Products Index"
Wisconsin	
Washington, Office of State Procurement	"Indoor Air Quality Specifications for Office Furniture"

U.S. Associations & Organizations	Publications
California Against Waste Foundation	"Buy Recycled: A Guide for Business and Government Procurement"
Coalition for Environmentally Responsible Economies	"Environmental Principles"; Guide to the CERES Principles"
Council on Federal Recycling and Procurement Policy	
Office of Environmental Policy	"Environmentally Preferred Guidelines"; "Procurement Guidelines for Government"
General Accounting Office	"Solid Waste: Federal Program to Buy Products with Recycled Materials Proceeds Slowly"

Green Seal	"Office Green Buying Guide" Will be available in June; "Green Seal Environmental Partner Program"
Centre for Responsible Law (Government Purchasing Project)	"40 Ways to Make Government Purchasing Green"; "Energy Efficient Offices"
National Association of State Purchasing Officials (NASPO)	"State Purchasing Contract Manual"
Council of Economic Priorities (socially responsible organization)	"Shopping for a Better World"
Proctor and Gamble	
Quaker Oats	"Environmental Purchasing Policy"; "Environmental Site Inspection Checklist"
Pepsi Cola Canada	"Pepsi Cola Canada Beverages' Environmental Policy Statement"
Coca Cola Ltd. Environment:	"Coca Cola Company and the A Global Commitment"
General Mills	
Scientific Certification Systems	"The Forest Conservation Program"
The Body Shop	"No time to Waste"; "Values and Vision 94"
Ben and Jerry's	
Johnson and Johnson	
XEROX Quality	"Environmental Leadership Plus Total Equals Continuous Improvement"
Washington Retail Association Guidelines"	"Preferred Packaging Procurement
Centre for Policy Alternatives	"Creating Markets"
Energy Efficient Procurement Collaborative	

Private Sector Contacts	**Publications**
3M	"3M and the Environment"
Bell Canada	"The State of the Environment: Corporate Management Strategy"
Canadian Buy-Recycled Alliance	
Herman Miller	"Companies Going Green"
IBM	"IBM and the Environment"
Canadian Standards Association	"Environmentally Responsible Procurement: "Green Procurement"
McDonald's Corporation	
Home Depot	"Environmental Marketing Claims: Evaluation Program"; Corporate Responsibility Report"; "Timber Certification Program"

Canadian Public Sector Contacts

Canadian government and associations	**Publications**
Association of Canadian Cities for Environmentally Sound Strategies (ACCESS)	
Canada Mortgage and Housing Corporation	
Correctional Services Canada	
Department of Foreign Affairs and International Trade	
Environment Canada	
Environmental Choice Program	International Directory, Guidelines
Finance/Treasury Board	
Fisheries and Oceans	
Health Canada	
House of Commons	
Human Resources Development Canada	
Indian and Northern Affairs	
National Archives	
National Defence	
National Research Council	
Natural Resources Canada	
Public Works and Government Services Canada	
Revenue Canada	
Statistics Canada	
Transport Canada	"Choose Green" guide
Canadian Council of Ministers of the Environment (CCME)	
Ontario Ministry of Environment and Energy	

European Contacts

Public Sector	**Publications**
Department of Environment, UK	
Department of Environment, Norway	Grone Kontor
European Commission	
Blue Angel Certification Programme	Reports on file
Nordic Swan	Reports on file
Government of France	Reports on file

Private Sector	**Publications**
B&Q UK	Purchasing policy; Wood sourcing poster
ICI	General environmental policy
Shell International	Environmental policy

British Gas	Policy, questionnaires to suppliers
DHL	General questionnaire
Skippingdale	Oral only
Body Shop, UK	Full policy and questionnaire
Danish Steelworks	
British Telecom	Policy and questionnaire
IBM UK	Policy and questionnaire
BSO Origin	Policy and criteria
Norsk Hydro	
NatWest Bank	Environmental policy

Appendix B: Organizational Approaches to Green Procurement

(responses are accurate as of June 1995)

	Body Shop	British Telecom	Thorn EMI	British Gas	Quaker Oats	Bell Canada	New York	Santa Monica	King County	Minn. State
Environmental Procurement Policy	✓	✓	not widely adopted	✓	✓	✓	✓	toxic use reduction	✓	✓
Procedures to Implement Policy	✓	✓	not widely adopted	assume yes	✓	✓	✓	✓	✓	some
Communications and Training	✓	✓		assume yes	✓	✓	no	✓	✓	✓
Recommend EcoLogo[M] products or equivalent (e.g. Green Seal)						✓				
Must use EcoLogo[M] products equivalent (e.g. Green Seal)					?	?	U.S. EPA standards			U.S. EPA standards
Use Guidelines and Standards other than EcoLogo[M]				will use BS7750 in future				use MSDS data sheets		
Developed Company Environmental Specifications	✓	paper			no	?		some cases	✓	some
Uses Standard Environmental Clause					✓	?	?			?
Price Preference	implicit				no	no	✓		✓	✓
Cooperative Purchasing						no	no			✓
Centralized/Decentralized Purchasing (C/D)					?	?	?			C

	B.C. Prov. Gov't	Alta. Prov. Gov't	Sask. Prov. Gov't	Man. Prov. Gov't	Ont. Prov. Gov't	Que. Prov. Gov't	N.B. Prov. Gov't
Environmental Procurement Policy	yes	yes	yes	yes	yes	yes	no
Procedures to Implement Policy	draft	yes	yes	some	yes	some	no
Communications and Training	no	yes	yes	some	yes	some comm.	some comm.
Recommend EcoLogo[M] products or equivalent (e.g. Green Seal)	some	-	no	?	-	yes	no
Must use EcoLogo[M] products or equivalent (e.g. Green Seal)	?	yes	no	no	yes	no	no
Use Guidelines and Standards other than EcoLogo[M]	?	?	no	yes	yes	yes	no

	B.C. Prov. Gov't	Alta. Prov. Gov't	Sask. Prov. Gov't	Man. Prov. Gov't	Ont. Prov. Gov't	Que. Prov. Gov't	N.B. Prov. Gov't
Developed Company Environmental Specifications	no	no	yes	no	yes	yes	no
Uses Standard Environmental Clause	?	no	yes	yes	yes	no	yes
Price Preference	no	within existing resources	no	no	some cases	yes	no
Cooperative Purchasing	standing offer	standing offer	yes	gov't only	standing offer	standing offer	yes
Centralized/Decentralized Purchasing (C/D)	C	C	C	C	some C	some C	C

	N.S. Prov. Gov't	P.E.I. Prov. Gov't	Nfld. Prov. Gov't	Y.K. Prov. Gov't	N.W.T. Prov. Gov't
Environmental Procurement Policy	yes	no	no	no	no
Procedures to Implement Policy	being developed	no	no	no	no
Communications and Training	being developed	no	no	no	no
Recommend EcoLogo^{M} products or equivalent (e.g. Green Seal)	?	yes	no	yes	yes
Must use EcoLogo^{M} products or equivalent (e.g. Green Seal)	no	no	no	?	?
Use Guidelines and Standards other than Ecologo	?	?	?	?	?
Developed Company Environmental Specifications	?	no	no	?	?
Uses Standard Environmental Clause	no	no	no	no	no
Price Preference	yes	no	no	no	no
Cooperative Purchasing	yes	yes	standing offer	yes	yes
Centralized/Decentralized Purchasing (C/D)	C	C	C	C	C

	Transport Canada	DND	Health Canada	Foreign Affairs	AgCan	NRCan	Justice	Environ. Canada
Environmental Procurement Policy	being developed	being developed	being developed	being developed	being developed	being developed	being developed	yes
Procedures to Implement Policy	?	?	?	?	?	?	?	yes
Communications and Training	yes	yes	yes	yes	yes	no	no	yes
Recommend EcoLogo[M] products or equivalent (e.g. Green Seal)	yes	no	no	yes	no	no	no	yes
Must use EcoLogo[M] products or equivalent (e.g. Green Seal)	yes	no	no	no	no	no	no	yes
Use Guidelines and Standards other than EcoLogo[M]	yes	?	?	?	?	yes	?	yes
Developed Company Environmental Specifications	no	no	no	yes	no	no	no	yes
Uses Standard Environmental Clause								
Price Preference	yes							
Cooperative Purchasing								
Centralized/Decentralized Purchasing (C/D)	D	D	D	D	D	D	D	D

	House of Commons	Stats Can	Auditor General	CIDA TB	Finance	Fisheries Oceans	HRD	Indian/ Northern
Environmental Procurement Policy	yes	yes	no	no	being developed	no	being developed	being developed
Procedures to Implement Policy	yes	yes	-	-	?	-	?	?
Communications and Training	yes	yes	?	no	yes	yes	yes	no
Recommend EcoLogo[M] products or equivalent (e.g. Green Seal)	yes	yes	no	yes	no	no	yes	no
Must use EcoLogo[M] products or equivalent (e.g. Green Seal)	no	no	no	no	no	no	no	no
Use Guidelines and Standards other than EcoLogo[M]	?	yes	?	yes	no	?	yes	no
Developed Company Environmental Specifications				?	yes	no	yes	no
Uses Standard Environmental Clause	?	?	no	no	no	no	?	yes
Price Preference								
Cooperative Purchasing								
Centralized/Decentralized Purchasing (C/D)	D	D	D	D	D	D	D	D

	National Archives	Revenue Canada	PWGSC
Environmental Procurement Policy	?	no	no
Procedures to Implement Policy	-	-	-
Communications and Training	yes	no	no
Recommend EcoLogo^{M} products or equivalent (e.g. Green Seal)	?	no	no
Must use EcoLogo^{M} products or equivalent (e.g. Green Seal)	no	no	no
Use guidelines and standards other than EcoLogo^{M}	no	no	no
Developed Company Environmental Specifications	no	no	no
Uses Standard Environmental Clause	no	no	no
Price Preference			
Cooperative Purchasing			
Centralized/Decentralized Purchasing	D	D	D

Appendix C: Criteria for Green Procurement

Abbreviations

BC Bell Canada
BG British Gas
BS The Body Shop
BT British Telecom
CEP Council on Economic Priorities (U.S.)
CSA Canadian Standards Association
GIP Governments Incorporating Procurement Policies to Eliminate Refuse (GIPPER)
KC King County
Min Minnesota
NW National Wildlife Federation
QO Quaker Oats
SCS SCS's Forest Conservation Program
SM Santa Monica Toxic Use Reduction
WR Washing Retail
WS Washington State Indoor Air Quality Specifications

Table Codes

1. specified amounts
2. own products
3. own list of hazardous materials
4. contain toxins?
5. asks about hazardous wastes
6. energy requirements?
7. water conservation efforts on-site
8. plan to phase out Ozone Depleting Substances
9. gives specifications
10. are hazardous materials released into the aquatic environment?
11. Life Cycle Assessment
12. from sustainable sources?
13. more detailed analysis
14. implied for paper
15. own products, eliminate by 1997
16. water requirements
17. own specifications
18. "catch-all" question
19. any legal action taken against you?
20. senior management support?
21. asks for position of person
22. at least 3
23. housing assistance

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
General Environmental Criteria for all Products																
Is the product necessary?																
Is the product size/ magnitude necessary?																
Are all features necessary?					●				●							
Can the product be shared, borrowed?								●	●							
Does product comply with standards and regulations?					●											
Are green procurement guidelines, standards or specifications available from Environmental Choice/CGSB?								●								
Is the product "certified" green (e.g. Ecologo^{M}/ Green Seal etc.)?					●		●	●								

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Product Design																
Is the product durable/ long lasting?					●			●	●							
Is it reconditionable after use?					●			●	●							
Is it recyclable after use?				●	●	●		●	●							
Does it contain recycled material?				●	●	1			●					●	●	●

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Does it contain post consumer recycled material?				●	●	1								●	●	●
Is it easily updated or upgraded by replacing or adding a part?								●			2			●		
Is it easily maintained and repaired?								●	●		2			●		
Are parts easily reused?				●	●			●						●		
Are parts easily reconditioned?					●			●	●							
Are parts easily recycled?					●			●	●				●	●		
Does product contain toxins (as defined by Environmental Protection Agency or Canadian Environmental Protection Act)?				●	●		●							3		
Does product contain banned or restricted substances (e.g. CFCs)?				●					●				●	●		●
Does product contain ozone depleting substances?				●					●				●	●		
Does product design consider energy conservation?				●					●		2					
Does product contain VOCs?							●							●		

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Manufacturing/ Production Process																
Has manufacturer complied with National Pollution Release Index (NPRI)?										5						
Is manufacturer participating in ARET (Accelerated Reduction/Elimination of Toxics) program?										5						
Does manufacturer comply with any quality performance standards (e.g. ISO 9000)?										●						
Does manufacturer comply with any environmental performance standards (e.g. ISO 14000, BS7750, CSA standards)?					●											●
Is manufacturer willing to sign a statement verifying that it complies with environmental legislation?										●	●					

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Is manufacturer willing to undergo an environmental audit?										●	●					
Does process produce greenhouse gases?				●									●		●	
Does process minimize energy expenditures?				●	●									●		●
Does process minimize discharges to water bodies?				●	●					●	7			●		
Does process use ozone depleting substances?				●									●	●	●	8
Does manufacturing process create NOx emissions?				●	●									●	●	●
Does manufacturing process create SOx emissions?				●	●									●	●	●
Does manufacturing process create CO emissions?				●	●									●	●	●
Does manufacturing process create ground level ozone emissions?				●	●									●	●	●
Does manufacturing process create particulates emissions?				●	●									●	●	●
Does manufacturing process create carcinogens identified by the International Agency for Research on Cancer (IARC)?					●		●			5					●	
Does manufacturing process create hydrocarbons?				●	●									●	●	●
Does manufacturing process use halogenated solvents (e.g chlorinated, brominated etc.)?				●	●					5				●	●	●
Does manufacturing process use aromatic solvents?				●	●					5				●	●	●
Does product contain, or process use, heavy metals, especially lead, mercury, cadmium, hexavalent chromium and their compounds?										5				●		
Do you discharge any air emissions? (general question)				●	●								●			●

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Water Effluents																
Are the organic compounds from water effluent biodegradeable?							9							●	●	●
What is the level of toxicity to aquatic life, using Environment Canada Biological Test Methods or equivalent?							●							10		
What is the level of biochemical oxygen demand (BOD) of effluent from manufacturing sites?															●	
What is the level of bioaccumulation?																
What is the level of total suspended solids in effluent from manufacturing sites?																

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Material Acquisition																
Are environmental and social impact assessments conducted before activity commences?					●								11	●		
Does product substitute renewable materials for non-renewable resources?					●		●							●		12
Does extraction method prevent water contamination?														●		
Does extraction/acquisition create hazardous by-products?										●				●		
Does acquisition cause displacement of local peoples?														●		

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Agricultural Considerations																
Do you use sustainable harvesting methods?	13													●	●	
Do you use methods to prevent soil erosion?	13													●	14	
Do you use pesticides/ insecticides?	13				●									●		
Do you use fertilizers?	13													●		
Do you use 'certified organic' products?					●									●		
Does paper come from old growth forest?														●	●	

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Packaging/Shipment																
Do you use "Canadian Code of Preferred Packaging Practices" guidelines or equivalent?													●			
Does company comply with National Packaging Protocol?																
Does product eliminate packaging?					●			●	●	2	2	●				
Does product use minimal packaging?				●	●		●		●	2	2	●	●		●	
Does packaging contain recycled content?				●			●	●	●	2	2	●	●	●	●	
Does packaging use post consumer recycled content?							●	●	●			●		●		●
Does packaging use non-chlorine bleached paper?														●		
Does product use bulk packaging?					●			●	●			●		●		
Is container refillable?				●	●			●	●			●		●		
Is packaging reusable by returning to supplier?				●	●			●	●	2		●	●	●	●	●
Does packaging use soy-based inks?								●		15				●		
Can packaging be recycled locally?					●		●	●					●	●	●	
Can packaging be recycled in an economically/ technically viable manner?					●		●	●	●	2	2	●		●	●	
Are alternatives used to polystyrene "peanuts"?								●				●				
Is a return loop in place for recycling?				●				●					●			

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Can packaging be reused for another purpose?									●	2	2					
Does product come in a concentrated form?							●								●	
Are there toxic materials in packaging?									●						●	

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Consumer Use/ Product Use																
Is product energy efficient?				●	●				●		2					
Is product water efficient?					●											
Does product generate little or no waste during use?					●				●	2	2					
Indoor Air Quality Issues																
Do formaldehyde emission rates not exceed 0.05 ppm after 30 days of installment?			●													
Do VOC emission rates not exceed 0.5 ppm after 30 days of installment?			●				17							●		
Is off-gasing from product eliminated or significantly reduced?			●		●											

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
End Use/Disposition																
Does product require special disposal considerations?				●	●		●						●	●		
Can components be effectively separated into identifiable materials and be salvaged/repaired/ recycled?								●					●	●		
Can product be recycled in an economically/ technically viable manner?				●			●	●					●	●	●	
Is product labelled to inform user of relevant disposal information?				●	●								●	●		

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Organization's Environmental Profile (questions about company)																
Is an environmental Management System (EMS) in place?				18						●			●		●	
Has an environmental audit been conducted?				●	●				●	●			●		●	
Does company have a comprehensive waste management/recycling program in place?				●	●				●					●		●
Does company comply with all environmental legislation?				●	●				●	●			●	●		19
Does company apply stricter environmental standards than required by law?					●											
Can it substantiate all environmental claims?					●				●							●
Is responsibility for environmental issues at Company Director level?					20					21			●		●	●
Is there environmental issues training for all staff?				●									●		●	
Is there an Environmental Policy Statement?				●	●				●				●		●	●
Is there an Environmental Policy Statement available to public?				●									●		●	
Does company conduct an environmental appraisal of suppliers and subcontractors?													●		●	
Has a full life cycle environmental evaluation been carried out on products or services?													●			
Is the company making demonstrable efforts to maximize resource efficiency (e.g. water, energy etc.)?				●	●		●									
Has the company had any environmental infractions over the past 5 years?				●						●			●			
Does the company have a local purchasing preference policy?				●										●		

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Organization's Social/Ethical Profile ***Animal Testing***																
Is animal testing conducted?	●													●		
Are in-vitro tests conducted?	●													●		
Is cruelty-free testing conducted?							●									
Advancement of Women/ Minorities/Disabled																
Are women/minorities on Boards of Directors?	22															
Are women/minorities in top official/management positions?	22															
Does company hire employees with disabilities?																
Are facilities accessible by wheelchair?																
Are you an Equal Opportunity Employer ?				●										●		
Family benefits/ Workplace benefits																
Does company have a flexible workplace policy and/or work at home arrangements?	●															
Does company have a non-discrimination policy/program regarding sexual orientation?	●															
Does company have a child care assistance and/ or day care program?	●															
Does company have a parental leave program?	●															
Does company have educational and training assistance?	●			23												
Does company have an employee home ownership program?	●															
Does company have a no lay-off policy?	●															
Does company offer same benefits to part-time employees as full-time employees?	●															
Does company have a policy to re-hire former employees?	●															

	CEP	SCS	WS	NW	CSA	KC	SM	Min	GIP	QO	IBM	WR	BC	BS	BT	BG
Does company have a stress release program?	●															
Charitable Giving/ Community Outreach																
Do you have a charitable giving program?	●			●												
Do you encourage employee involvement in community volunteer activities?	●															
Does company donate food to local food banks?	●													●		
Does company sponsor a community recycling program?	●															
Do community members sit on the corporate environmental committee?	●						●									

National Round Table
on the Environment
and the Economy
1 Nicholas Street, Suite 1500, Ottawa, Ontario, Canada, K1N 7B7

Table ronde nationale
sur l'environnement
et l'économie
1, rue Nicholas, bureau 1500, Ottawa (Ontario) Canada, K1N 7B7

Tel./Tél. : (613) 992-7189 • Fax/Téléc. : (613) 992-7385 • E-mail/Courrier électronique : nrtee@web.apc.org