

GUIDE TO INTEGRATING ENVIRONMENTAL MANAGEMENT PRINCIPLES INTO OPERATING CODES OF PRACTICE

BACKGROUND INFORMATION AND OBJECTIVE

One of the primary goals of the Transportation Association of Canada's (TAC) Environment Council is to promote the acceptance and implementation of TAC's *Environmental Policy and Environmental Code of Ethics* by Association members. This Policy and Code (Appendix 1) provides a framework for the achievement of environmentally sustainable transportation services. Issued in 1992, the Policy and Code has been supported by all senior governments, some forty cities and over fifty private companies.

The objective of this document is to provide a guide for integrating environmental management principles into established codes of practice.

WHAT IS A CODE OF PRACTICE?

Transportation operators generally formalize their operating procedures into policy manuals or checklists. This facilitates consistent application and continuous improvement (Figure 1). Any document that describes an operation within an organization is a

Code of Practice. This can range from a specific policy statement on project planning, to a section in a maintenance manual dealing with the handling and disposal of waste oil. Adopting environmental management principles into established operational practices merely integrates environmental considerations into normal operating practices. These codes represent development through a commitment to the identification of the environmental impacts of an operation and to the prevention or mitigation of these impacts.

WHAT IS ENVIRONMENTAL RESPONSIBILITY?

Pollution is the result of wasted resources. Although this has traditionally been accepted as a byproduct of some public and commercial operations, these wastes are now recognized as the product of economic inefficiency. Environmental protection often results from addressing these inefficiencies. By building environmental responsibility into operating practices, we can protect the environment for future generations while at the same time reducing costs to the organization. Environmental protection should become part of day-to-day activities, and everyone's responsibility in the same way as safety and legal requirements.

Continuous Improvements of Operational Practices

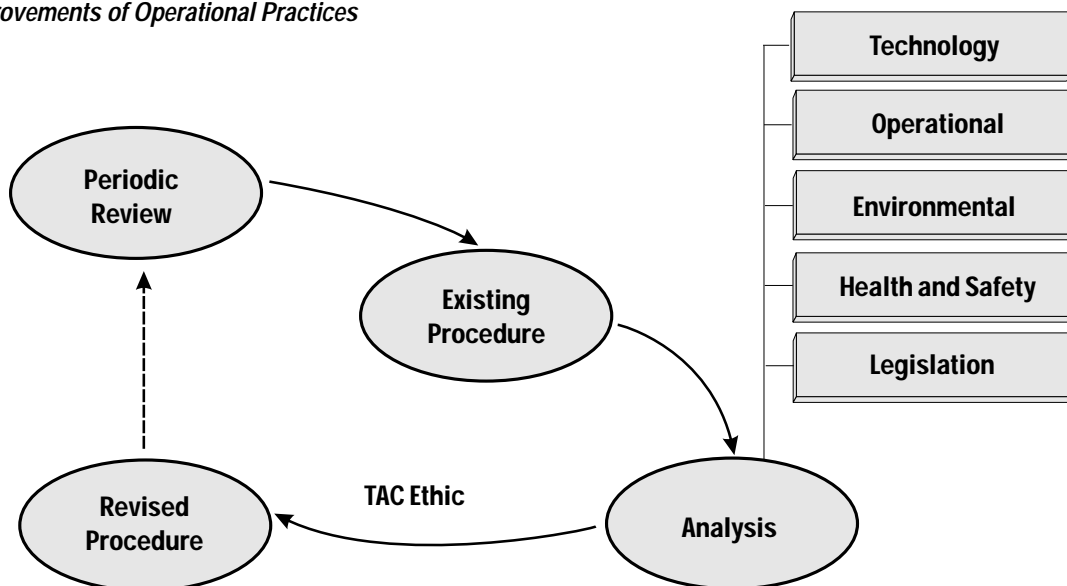


FIGURE 1

KEYS TO A SUCCESSFUL CODE OF PRACTICE

- there must be strong senior management and staff level commitment to environmental responsibility and the revised Code of Practice;
- there must be a clear understanding of what actions are required and who is responsible and accountable for implementing the Code of Practice;
- there must be a commitment to both the letter and the intent of the laws affecting the operation to which the Code of Practice applies;
- there must also be a commitment to the remediation of unforeseen impacts, e.g. spills;
- there must be a monitoring or auditing function that assesses the effectiveness of the practice and initiates follow-up action to correct any deficiencies. This encourages continuous improvement of the process.

PROCEDURE FOR DEVELOPING A CODE OF PRACTICE

The development of a Code of Practice requires considerable thought and analysis. It must be a team effort involving key stakeholders who are willing to challenge the status quo and find better ways of doing business. The following discusses the key steps in developing a Code of Practice.

A. SET THE GUIDING PRINCIPLES

Your organization must be clear about how it wants to proceed. Does it want to be a leader in finding more environmentally acceptable practices, does it want to be a close follower of others, or does it simply want to comply with the legal requirements? A proactive approach involves showing leadership that is guided by a vision of the future, rather than solely by legislated requirements. Your vision should be clearly expressed through a series of guiding principles. TAC has prepared an Environmental Code of Ethics (Appendix 1) to help you set these guiding principles. Your agency should either adopt TAC's Environmental Code of Ethics or develop a similar code suitable for your circumstances. Your Code of Ethics will provide the philosophical basis for your Codes of Practice, and the environmental context for judging your current and proposed practices.

The Environmental Code of Ethics used by your agency must be understood and promoted by senior management and supported by staff. Without this support, it will be difficult to proceed in a consistent fashion, and to deal with unforeseen and potentially difficult tradeoffs that may have to be made.

B. CREATE THE PROJECT TEAM

Responsibility for developing the Code of Practice should be clearly identified and documented. Although the team should be able to work autonomously, they will require visible and ongoing senior management support. As well, a participatory approach should be employed. This will ensure that the necessary commitment to the new or revised procedure is in place.

C. UNDERSTAND OPERATIONS

It is important that those charged with reviewing an operation and developing the procedural document which will ensure that the operation is carried out in an environmentally responsible way, understand all aspects of the operation. This will require an analysis of the steps carried out as the operation proceeds through its life cycle. It is suggested that the existing procedure should be defined, if one has not already been established, in a flow diagram or chart to indicate where, when, how and by whom each step of the process is carried out. Know what the inputs and outputs are at each step, as well as where these inputs and outputs come from and go to. In many cases this will be a linear process. However, in the case of operations that recycle and reuse materials, a cyclical process is employed. This process is known as a "closed loop process." Such processes are inherently more environmentally responsible because inputs are reduced and outputs, or wastes, are severely curtailed.

D. KNOW THE LAW

The purpose of the new procedure is to ensure that the operations to which the procedure applies are carried out in a way that complies with the spirit and the letter of the applicable laws. These should include both environmental, and health and safety legislation. They should also deal with all applicable jurisdictions including: municipal, provincial, and federal levels of government. Internal policies should also be understood in order that they can be reflected in the new procedure. These might include requirements to comply with the organization's Environmental Code of Ethics, or requirements for involvement of the local union representatives. The intent here is to understand and then integrate legal requirements, not to become bogged down in the law.

E. REFINE THE PROCEDURES

Once the operation, and the legal/policy context is fully understood, the team should assess how the operations need to be modified to best address the legal and policy requirements, to become more environmentally responsible. A useful approach in assessing the environmental aspects of an activity is to review each activity against the principles set out in TAC's Environmental Code of Ethics. Special attention should be afforded to any activity within the procedure which impacts on the environment or relates to principles of the Code. These should be analyzed so that the full extent of the environmental impacts can be understood and how they can then be avoided or mitigated. These avoidance or mitigation techniques must then be integrated into the revised procedure in a logical and cost effective way.

F. REVIEW THE PROCEDURES WITH THOSE AFFECTED

It is important to review the procedures with those who are affected including staff, union organizations, senior management, regulatory agencies, suppliers and any affected public. In this way you can ensure that the proposed procedure is practical, achieves the intended goals, and is accepted by those who have to implement and live with the new procedures. This consultation should be meaningful and allow for

modifications to the process should reasonable concerns be raised.

G. DRAFT THE PROCEDURE

The procedural document (Code of Practice) should become part of the organization’s formal policy and procedure documents. It should be clear and concise, written in plain language, set within the appropriate context to explain the procedures, and then perhaps most importantly, assign responsibility and the means to verify its application.

H. TRAINING AND EQUIPMENT

The need for training to ensure successful implementation of the practice cannot be over-emphasized. To initiate training it is advisable to make all staff aware of any new or expanded responsibilities resulting from the revised Code. The implementation program for the procedure must ensure that properly trained and equipped personnel are available to effectively implement the new procedure. Therefore, thought must be given to developing and implementing a training program and acquiring any necessary equipment or tools to ensure that the procedure can be implemented. This awareness and training should target all levels of management and operations within their particular scope of duties. An ongoing training program is required to update existing staff and inform new staff of the required procedures.

I. MONITOR AND REPORT

To ensure that the program is attaining its goals, there needs to be ongoing monitoring and periodic checks (audits). During this monitoring, actual results should be measured against expected results. These should be analyzed and any necessary corrective action undertaken.

FORMAT FOR A CODE OF PRACTICE

The following discusses the sections that should be included in a Code of Practice.

A. APPLICATION

This section should state what process the Code of Practice applies to. For example:

This procedure applies to the collection, management and disposal of waste oil produced from vehicle maintenance activities.

B. THE PROCEDURE

This section of the document describes the revised process which includes the environmental principles. It is the final product which should be a stepwise procedure that the responsible staff are expected to follow. It should deal with each phase of the process and describe what must be done, by whom and when. It should also address what actions are required in case of an emergency or unexpected event. It should include the complete life cycle of the process so that all of the key components are understood and addressed by the procedure. For example, in the case of waste oil (Figure 2), this might include types of vehicles serviced, where the vehicles are serviced, who carries out the servicing, what types and amounts of oil are involved, how the oil is collected, where it is stored, how it is moved, and how it is disposed. By understanding the full process, it is possible to determine where the potential legal and environmental concerns arise, and therefore, what actions or safeguards need to be included in the process.

Waste Oil Management Procedure

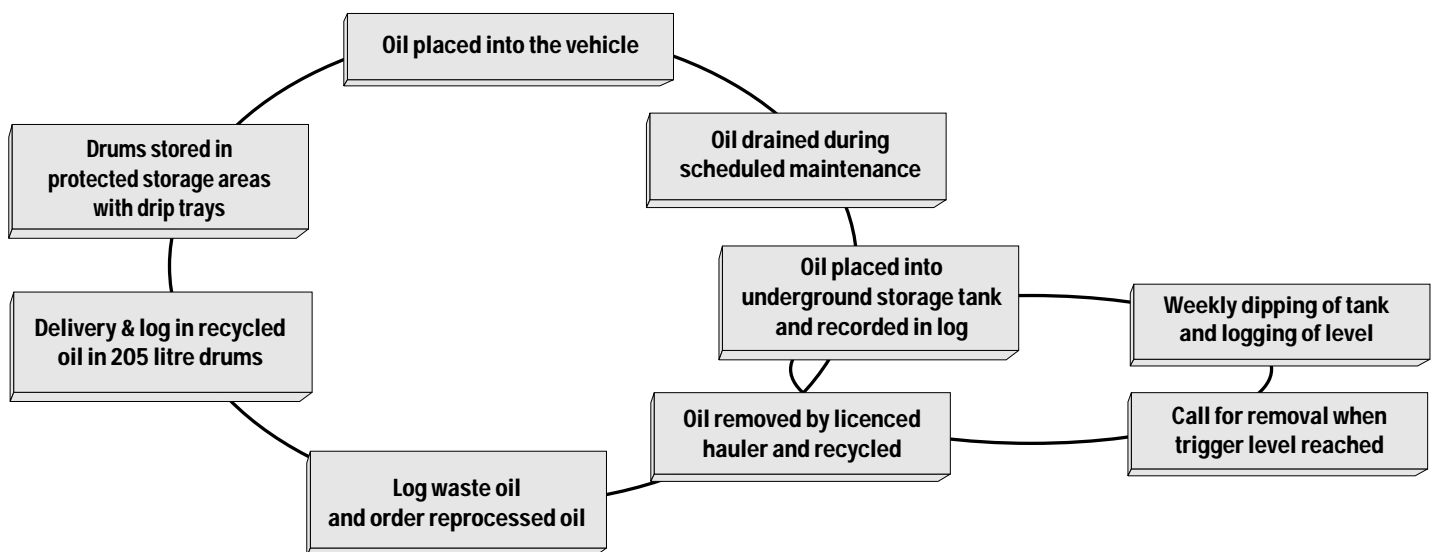


FIGURE 2

C. THE LAW

This section should briefly describe the intent and requirements of the applicable laws, so that the affected staff understand the rationale behind the procedures, and the personal and organizational ramifications of non-compliance. It is important that the Code explain the law, in terms that are understandable by Code users and are in the context of day-to-day operations.

In the case of the waste oil example, this might include the legal requirements for handling, transporting, storing and disposing of the waste oil. Where underground storage tanks are used, it might include the requirements for installation and monitoring of the tank and reporting to the appropriate regulatory agency. It might also include cleanup and reporting responsibilities in case of a spill, including proper health and safety equipment and procedures.

D. TRAINING

This section should describe what training is required and when, who is to receive the training, who is responsible for providing the training, and how often retraining/updates are required.

E. MONITORING, REPORTING AND FOLLOW-UP

This section should detail the periodic monitoring and reporting that is required to ensure the procedures are being followed and the expected results are being achieved. This should allow reporting to the senior management level that is accountable for the success of the procedure. It could also include a sunset clause that states when the policy/procedure will be subject to a full review.

SUGGESTED FORMAT

1. Application - the entire life cycle of the procedure;
2. The Law - all the legal parameters, i.e. federal, provincial, municipal;
3. Procedure - incorporates the changes stemming from adopting the environmental principles;
4. Monitoring - what are the procedures and who is responsible for follow-up.

**REVIEWING THE PRODUCT -
CODE OF PRACTICE CHECKLIST**

Does your revised Code of Practice include the following minimum components:

- a statement of objective;
- scope of application from cradle to grave;
- an explanation of the legal and policy requirements;
- detailed emergency procedures;
- clear assignment of responsibility and accountability;
- definition of education and training requirements;
- monitoring and feedback procedure;
- regular review to assure success and continuous improvement.

This **Guide** was prepared for TAC's Environment Council by Bob Hodgins, Ecoplans Limited; Rick Delaney, Transport Canada; and Yvette Smith, Interlink Freight Systems Inc. TAC and its Environment Council would like to acknowledge and thank these Council members for their time and effort in preparing this document.

APPENDIX 1

Transportation Association of Canada Environmental Policy and Code of Ethics

***Approved by the TAC Board of Directors
September 15, 1992***

The Transportation Association of Canada (TAC) is a national non-profit association of more than 550 voluntary corporate members and includes the federal, all provincial/territorial and many municipal governments, passenger transport services, goods carriers, contractors, manufacturers, consultants, academic and research groups, and others. The Association's organization includes a **Board of Directors**; an **Executive Committee** of the Board; as well as seven **Councils** and supporting **Standing Committees** and **Project Steering Committees**. In the following Environmental Policy and Code of Ethics, TAC refers to the Board of Directors, the Association's councils and committees and its Secretariat.

TAC's mission is to promote the provision of safe, efficient, effective and environmentally sustainable transportation services in support of Canada's social and economic goals. In carrying out this mission, TAC encourages its members to:

- adhere to the following Environmental Policy and Code of Ethics in support of achieving environmentally sustainable transportation services; and
- provide leadership in developing their own supporting policies, guidelines and practices.

ENVIRONMENTAL POLICY

The Transportation Association of Canada (TAC) is committed to protect and enhance the environment when providing transportation services, so as to sustain the earth's ecosystem.

TAC is dedicated to establishing harmony and balance between the transportation of people and goods, and the environment in order to achieve a sustainable social and natural environment.

ENVIRONMENTAL CODE OF ETHICS

The Transportation Association of Canada encourages its members to adhere to the following Code of Ethics and to use it as a basis for the development of transportation-related codes of practice. The essence of this code of ethics is to espouse an understanding of, and respect for, the rights of people and the environment and their inter-relationships.

Mainstreaming Environmental Concerns

Every activity, be it policy or project development, operations, or influence, has positive and negative environmental effects. Therefore, environmental considerations should be integrated into day to day activities and long-term decision-making, fostering a commitment to environmental protection within the transportation sector.

Continuous Improvements

Environmental protection and enhancement are an ongoing responsibility. Therefore, policies, plans, programs, projects and activities should be monitored, reviewed and improved on an ongoing basis.

Incremental Effects

Environmental degradation results from the aggregation of many small impacts over extended periods of time. Therefore, the cumulative environmental effects of transportation activities should be assessed and remedial action taken to minimize those effects.

Partnership and Awareness

To enhance the decision-making process and raise awareness about transportation-related environmental issues and problems, open communication and partnership with all stakeholders should be encouraged.

Public Participation

In recognition of the need for open communications and partnerships with stakeholders, actions should be sensitive and responsive to the public's concerns and their right to know about transportation-related environmental issues. The public should be involved in the resolution of these issues.

Proactive Planning

Environmental problems should be anticipated and addressed when developing policies, plans, programs, standards and/or guidelines.

Integrated Transportation Planning

A healthy environment depends on sound planning. Therefore, land use, transportation, and environmental planning should be integrated, fostering a multi-modal approach to meeting Canada's transportation needs. A full range of alternative solutions should be considered, emphasizing the management of the demand for, and supply of, transportation services.

Research and Development

In recognition of the importance of knowledge to environmental protection and enhancement, leadership in the research and development of environmentally compatible transportation technologies and methods should be provided and openly shared with others.

Product Stewardship

All materials (hazardous and non-hazardous) should be handled in a way that protects health and the environment.

Products and Processes

In recognition of the need to integrate environmental concerns into all aspects of transportation, environmentally compatible products and processes should be used.

Atmospheric Protection

Transportation-related air emissions, especially those that contribute to global warming, urban smog, ozone depletion, acid rain, as well as other adverse effects on health and the natural environment should be minimized or eliminated.

Surface and Ground Water Protection

In recognition of the necessity of clean water to health, the economy, and the ecosystem, discharges of transportation-related contaminants to surface (fresh and salt water) and ground water should be minimized. Water should also be used in a wise and efficient manner.

Land Protection

Transportation facilities should be planned so as to conserve land resources generally and to preserve and protect lands that are needed to sustain future generations. Furthermore, site contamination should be avoided and land clean-up undertaken as appropriate.

Conservation of Resources

Energy and other resources should be conserved with particular emphasis on reducing dependence on non-renewable resources.

Waste Management

Waste discharges to the environment should be continually reduced through the development and application of 3R (Reduce, Reuse and Recycle) programs and technologies.

Special Spaces and Species

Given the importance of natural habitats to the long-term survival of plants, animals, and aquatic life, these areas should be protected and enhanced. As well, areas containing physical features of significant interest should be protected.

Noise Reduction

Transportation-related noise impacts should be minimized.

Appreciation of Canada's Cultural Heritage

Historical sites, archaeological resources and other aspects of our diverse cultural heritage should be preserved for future generations.

Aesthetics

Transportation facilities should be planned, designed and constructed with due consideration for the visual environment into which they are placed.

ENVIRONMENT COUNCIL

The Environmental Policy and Code of Ethics presented above was prepared by TAC's Environment Council as requested by the Board of Directors. The objectives of this Council are to:

- raise awareness of environmental issues in transportation for the TAC membership;
- provide a forum for discussion and education about environmental issues; and
- encourage and assist TAC members in seeking effective resolution of specific environmental issues.

The membership of this Council includes: federal and provincial governments (transportation and environment), municipal governments, vehicle manufacturers, roadway contractors, carriers (truck, transit, rail, air, ports) motorists, academics and consultants.

For additional copies of this document and for more information on the activities of the Environment Council, please contact:

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