Environment Accounts and Statistics Division

Survey of Environmental Protection Expenditures, 2002

Confidential when completed

Collected under the authority of the *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S19.

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Please read before completing

PURPOSE OF THE SURVEY

This survey provides a measure of the expenditures made by industry for environmental protection in Canada in reponse to Canadian and international environmental regulations, conventions and voluntary agreements. The survey also aims at identifying environmental management practices and technologies used in Canadian industry for the purpose of preventing or abating pollution. These data will be aggregated with information from other sources to produce official estimates of environmental protection expenditures.

The results of this survey will be published in the Statistics Canada publication Environmental Protection Expenditures in the Business Sector, 2002, Catalogue No. 10F,0006XIE.

CONFIDENTIALITY

Statistics Canada is **prohibited by law** from publishing any statistics which would divulge information obtained from this survey that relates to any identifiable respondent, without the previous written consent of that respondent. The data reported will be treated in strict confidence, used for statistical purposes and published in aggregate form only. The confidentiality provisions of the *Statistics Act* are not affected by either the *Access to Information Act* or any other legislation.

AUTHORITY

This survey is conducted under the authority of the *Statistics Act,* Revised Statutes of Canada, 1985, Chapter S19. **COMPLETION OF THIS QUESTIONNAIRE IS A LEGAL REQUIREMENT UNDER THE STATISTICS ACT.**

INQUIRIÉS

If you require assistance in completing this questionnaire or if you have any questions or comments regarding this survey, please contact:

Operations and Integration Division Statistics Canada Ottawa, ON, Canada, K1A 0T6

Telephone (toll-free): **1-800-255-7726** Fax: **1-800-755-5514**

Email: enviro.oid.exp@statcan.ca

The questionnaire is available in an electronic spreadsheet format. Please contact the Operations and Integration Division if you prefer to use this reporting option.

In all correspondence concerning this questionnaire, please quote the identification number that appears on the address label.

Important: Please read the Definitions and concepts on page 6 before answering. If your response for an item is zero, please write "0" in the corresponding box rather than leaving the cell blank.

Please return this questionnaire within 30 days of receipt.

If you are unable to do so, kindly inform the Operations and Integration Division of the expected completion date.

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4-2300-58: 2002-11-15 STC/NAD-475-04244



Statistics Statistique Canada Canada



1. Reporting year

Report must cover your most recent fiscal year that ended at any time between April 1, 2002 and March 31, 2003.

| рау | Month | |
|-----|-------|-----|
| 010 | 020 | 030 |
| | | |

Year

| Day | Month | Year |
|-----|-------|------|
| 040 | 050 | 060 |
| | | |

Please report in thousands of Canadian dollars

2. Pollution prevention, abatement and control expenditures. If the expenditure is zero, please write "0" in the corresponding box.

Include

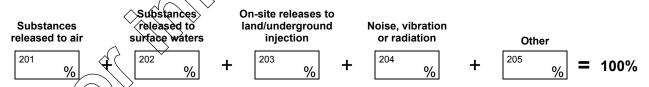
- Expenditures for end-of-pipe pollution abatement and control facilities and equipment
- ◆ Expenditures for pollution prevention equipment or facilities integrated to a production process, that prevent or minimize the creation of pollutants and waste
- Expenditures for equipment or facilities related to leak and spill prevention. They may include expenditures on the following: spill containments, dyke extension, accessories (valves, pumps) or emission detection equipment
- Expenditures for equipment or facilities used for conserving energy or water
- ◆ Expenditures for equipment or facilities associated with recirculation, recovery, reuse and recycling of materials or substances
- ◆ Pollution monitoring expenditures
- Expenditures for waste collection, disposal, treatment and recycling done by your employees
- Purchases of waste and sewerage management services or any other purchase of services reported in Question 6

Exclude

- ◆ Expenditures specific to workers' health and safety
- ◆ Site reclamation and decommissioning expenditures (Question 4)
- Research and development expenditures associated with pollution prevention, abatement and control



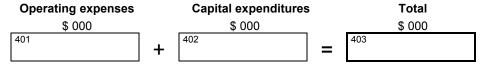
3. From the amount of capital expenditures reported in cell 102, what percentage was spent on preventing or abating each of the following?



- 4. Other environmental protection expenditures. If the expenditure is zero, please write "0" in the corresponding box. Include
 - Expenditures for site reclamation and decommissioning
 - ◆ Expenditures for protection and restoration of wildlife and habitat
 - Expenditures for environmental audits and assessments
 - Expenditures for training on environmental matters
 - ♦ Administration costs directly associated with environmental protection projects
 - ◆ Other expenditures required to comply with environmental regulations, conventions, or voluntary agreements

Exclude

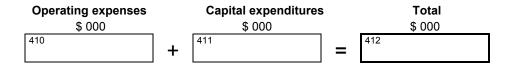
◆ Environment-related research and development expenditures



Please report in thousands of Canadian dollars

5. Total expenditures on environmental protection. If the expenditure is zero, please write "0" in the corresponding box.

This question is the sum of Questions 2 and 4



6. Purchase of environmental services

Of the total operating expenses and capital expenditures on environmental protection reported in Question 5, what proportions were purchased from a private contractor or government? Your best estimate is acceptable. If the proportion is zero, please write "0" in the corresponding box.

Include

- All expenditures associated with the use of a waste collection and treatment service or a sewerage service provided by a private contractor or a federal, provincial/territorial or local government
- Any purchase of environmental services provided by a private contractor or a federal, provincial/territorial or local government (examples include the purchase of environmental monitoring services; environmental assessment and audit services; construction and engineering services associated with the installation, repair or maintenance of pollution prevention, abatement and control infrastructure or equipment)

Exclude

- ♦ Any expenditures for environmental services provided by your establishment's or company's employees (own account work)
- ♦ Expenditures for on site recycling

% of total operating expenses

301

% of total capital expenditures

502

| Pollution prevention methods | | |
|--|---------------------|----|
| If you have prevented or reduced waste, pollutants or conserved resources in indicate how it was achieved by checking the appropriate box(es). Please incl regardless of whether they are required by regulation, convention or voluntary | ude all project | |
| Pollution prevention method | Yes | No |
| Product design or reformulation | 810 | |
| Equipment or process modifications (integrated process) | 830 | |
| Recirculation, on-site recycling, reuse or recovery of materials or substances | 850 | |
| Energy conservation and efficiency | 860 | |
| Materials or feedstock substitution, solvent reduction, elimination or substitution | 870 | |
| Improved inventory management or purchasing techniques | 875 | |
| Prevention of leaks and spills | 889 | |
| Good operating practices or pollution prevention training | 885 | |
| Other (Please specify) | 890 | |
| | | |
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| . */\` | | |
| Recirculation, recovery, reuse or recycling: recirculation, reuse, recovery or recycling of water, materials generated during production, excluding materials transferred or recycled off-site. | or substances | |
| 1. Recirculation, recovery, reuse or recycling: recirculation, reuse, recovery or recycling of water, materials generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration conditions. | | |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration condenses. | | |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concentration. Environmental management practices | | |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concentration. Environmental management practices Please indicate the environmental management practices adopted or utilized | denser operation. | |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concentration. Environmental management practices | | No |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concentration. Environmental management practices Please indicate the environmental management practices adopted or utilized by this establishment in fiscal year 2002 to avoid or minimize pollution, or to | Yes | No |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concerns. Environmental management practices Please indicate the environmental management practices adopted or utilized by this establishment in fiscal year 2002 to avoid or minimize pollution, or to conserve resources. a) Did this establishment use an environmental management system? | Yes | No |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concerns. Environmental management practices Please indicate the environmental management practices adopted or utilized by this establishment in fiscal year 2002 to avoid or minimize pollution, or to conserve resources. a) Did this establishment use an environmental management system? b) Did this establishment use Life Cycle Management, Life Cycle Assessment or Design for Environment for decision making? | Yes 951 965 | No |
| Environmental management practices Please indicate the environmental management practices adopted or utilized by this establishment in fiscal year 2002 to avoid or minimize pollution, or to conserve resources. a) Did this establishment use an environmental management system? b) Did this establishment use Life Cycle Management, Life Cycle Assessment or Design for Environment for decision making? c) Was this establishment ISO 14000 certified? | Yes 951 965 953 | No |
| Environmental management practices Please indicate the environmental management practices adopted or utilized by this establishment in fiscal year 2002 to avoid or minimize pollution, or to conserve resources. a) Did this establishment use an environmental management system? b) Did this establishment for decision making? c) Was this establishment ISO 14000 certified? d) Did this establishment have a "green" procurement policy? | Yes 951 965 953 | No |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concerns and the stable of the environmental management practices adopted or utilized by this establishment in fiscal year 2002 to avoid or minimize pollution, or to conserve resources. a) Did this establishment use an environmental management system? b) Did this establishment use Life Cycle Management, Life Cycle Assessment or Design for Environment for decision making? c) Was this establishment ISO 14000 certified? d) Did this establishment implement any environmental voluntary agreement, or did it participate in any voluntary environmental program? Examples include Accelerated Reduction/Elimination of Toxics (ARET) or Voluntary Challenge and Registry (VCR). | Yes 951 965 953 957 | No |
| Environmental management practices Please indicate the environmental management practices adopted or utilized by this establishment in fiscal year 2002 to avoid or minimize pollution, or to conserve resources. a) Did this establishment use an environmental management system? b) Did this establishment for decision making? c) Was this establishment have a "green" procurement policy? e) Did this establishment implement any environmental voluntary agreement, or did it participate in any voluntary environmental program? Examples include Accelerated Reduction/Elimination of Toxics (ARET) | Yes 951 965 953 957 | No |
| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concerns and the second concerns of the seco | Yes 951 965 953 957 | No |
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| generated during production, excluding materials transferred or recycled off-site. Examples: vapour recovery, recovery of sludge, water recirculation, reuse of water for refrigeration concerns and the stable of the environmental management practices adopted or utilized by this establishment in fiscal year 2002 to avoid or minimize pollution, or to conserve resources. a) Did this establishment use an environmental management system? b) Did this establishment use Life Cycle Management, Life Cycle Assessment or Design for Environment for decision making? c) Was this establishment ISO 14000 certified? d) Did this establishment have a "green" procurement policy? e) Did this establishment implement any environmental voluntary agreement, or did it participate in any voluntary environmental program? Examples include Accelerated Reduction/Elimination of Toxics (ARET) or Voluntary Challenge and Registry (VCR). | Yes 951 965 953 957 | No |

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| f) Were any of the goods produced by this establishment certified by an environmental program, such as the "Enviro Choice Program" operated by Terrachoice Inc.? g) Did this establishment publish or contribute to annual or other reports on its environmental performance or sustainable development? h) Did this establishment experience any cost savings as a result of implementing any of the environmental management practices outlined in this question or Question 7? i) Other (Please specify) 967 | Ho |
|--|------------|
| f) Were any of the goods produced by this establishment certified by an environmental program, such as the "Enviro Choice Program" operated by Terrachoice Inc.? | |
| program, such as the "Enviro Choice Program" operated by Terrachoice Inc.? | |
| performance or sustainable development? | |
| environmental management practices outlined in this question or Question 7? | |
| i) Other (Please specify) 967 | |
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| Certification | |
| I certify that, to the best of my knowledge, the information provided in this questionnaire | |
| is correct and complete. | |
| 900 Signature Date (D / M / Y) 900 (Title) | |
| X 905 Name of person completing this questionnaire (type or print) 915 Telephone No. 920 Fax No. | |
| 905 Name of person completing this questionnaire (type or print) 915 Télephone No. 920 Fax No. | |
| 925 Email address 930 Web site address | |
| | |
| Approximately how long did it take to collect the data and to complete this survey? 935 hours | |
| nodio | |
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| Comments | |
| Please provide any comments you may have about this survey (e.g., length, ease of completion, suggestions fo questions, suggestions about the format). Also, please use this space if you wish to provide additional informations. | r future |
| your environmental protection activities. | tion about |
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| If you have any questions whose soutset we | |
| If you have any questions, please contact us. Telephone (toll free): 1-800-255-7726 PLEASE RETURN THIS | |
| Fax: 1-800-755-5514 QUESTIONNAIRE IN THE | |
| Email: enviro.oid.exp@statcan.ca ENVELOPE PROVIDED | |
| Thank you for your cooperation | |

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Definitions and concepts

Environmental protection expenditures are defined in this survey as all operating expenses and capital and repair expenditures that are incurred in order to anticipate or comply with Canadian or international environmental regulations, conventions and voluntary agreements. They consist of expenditures for pollution prevention, and abatement and control expenditures for protecting and restoring wildlife and habitat, expenditures for environmental monitoring, environmental assessments and audits, and expenditures for reclamation and decommissioning of sites. Environmental protection expenditures incurred that are not in response to current or anticipated Canadian or international regulations, conventions or voluntary agreements should be excluded. In addition, expenditures to improve employee health, workplace safety and site beautification should also be excluded.

Environmental conventions or voluntary agreements refer to any formal, multi-party commitment by an industry, an industry association or other body, to meet specific targets in terms of habitat protection, waste reduction, or the elimination or reduction of specific materials that are considered to be harmful or toxic to the natural environment in Canada. Examples include the following: the National Packaging Protocol (reduction of packaging by 50 percent by the year 2000); the Montreal Protocol (elimination of CFCs by 1998); the Canada-U.S. Air Quality Agreement; the "Responsible Care" program from the Canadian Chemical Producers Association; the Accelerated Reduction/Elimination of Toxics (ARET) Program; the Voluntary Challenge and Registry (VCR) Program on climate change, etc.

Environmental regulations refer to any current Canadian federal, provincial, or municipal law or international legislation that is intended to protect or to restore (the environment in Canada. Expenditures related to anticipated legislation may be included as long as its provisions are known.

Pollution prevention, abatement and control (PPAC) expenditures include all outlays for the primary purpose of preventing, abating or controlling the release of pollutants and generation of waste resulting from the operations of this establishment. Expenditures to produce PPAC equipment for sale are excluded as they would appear twice in the

expenditure data produced by Statistics Canada. Expenditures for environment - related research and development are also excluded since they are collected elsewhere in Statistics Canada.

Pollution abatement and control (end-of-pipe) expenditures relate to expenditures on an equipment or a facility not integrated to production. Their sole purpose is to abate or control undesirable substances emitted during normal production activities. These expenditures also include waste management expenditures.

Pollution prevention expenditures include all expenditures for new or significantly modified integrated production processes that prevent or minimize emissions of pollutants and the amount of waste generated.

Environmental monitoring expenditures include all costs related to equipment, supplies, labour and purchased services that are required for the monitoring of pollutants emitted by this establishment (e.g. under the National Pollutant Release Inventory).

Environmental assessments and audits expenditures include expenditures for reviews of current operations for compliance with regulations (audits); expenditures to evaluate the environmental impact of proposed programs or projects assessments); associated legal and consulting costs

site reclamation and decommissioning expenditures include expenditures to clean up environmental damage resulting from this establishment's operations; decommissioning expenditures made during the year that are associated with the closing down of an establishment or site (even if closing occurred before 2002).

Expenditures for protection and restoration of wildlife and habitat include expenditures made to protect wildlife and habitat from the effects of this establishment's operations or to restore stocks that have been adversely affected by such operations. They exclude expenditures for aesthetic purposes.

How to report

Please report expenditures in thousands of Canadian dollars. If, for certain categories, no expenditures have been incurred, please write "0" in the corresponding box.

Where precise data are not available, your best estimate is acceptable. If additional information is available in an annual report or an environmental performance report, **please include a copy** when you return the questionnaire.

TO REPORT CAPITAL EXPENDITURES

Include all relevant outlays in 2002 (fiscal year) for machinery and equipment and their installation and repair, as well as for the construction of non-residential facilities (by contractors or own employees). For construction, include all costs associated with demolition, planning and

design (such as engineering and construction fees), any materials supplied to construction contractors for installation and any costs associated with the purchase of land that are neither amortised nor depreciated.

Exclude any provisions for future environmental liability.

TO REPORT OPERATING EXPENSES

Include expenses in 2002 (fiscal year) related to environmental protection incurred for labour, materials and supplies, maintenance and repair and purchased services (include fuel and electricity expenses for machinery and equipment whose sole purpose was to protect the environment).

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