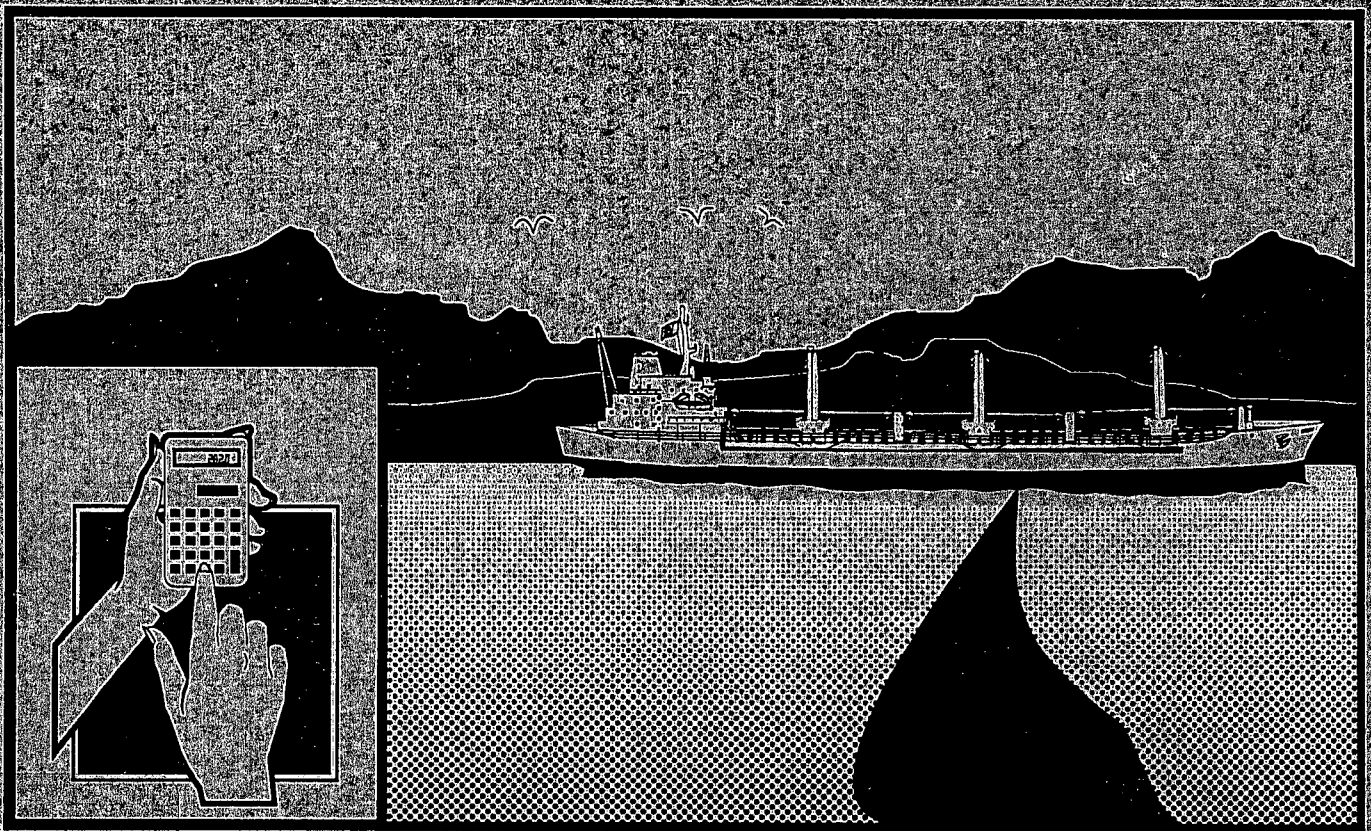


CALCULATING CLEAN-UP COSTS OF POLLUTION INCIDENTS

AN ENVIRONMENT CANADA REGIONAL GUIDE



*Civil Litigation Liaison Division
Environmental Protection
Pacific & Yukon Region*

HC
79.E5
P65
1993
c. 2

July 1993

ACKNOWLEDGEMENTS

The area of cost recovery in environmental civil litigation cases crosses many fields of expertise. Several people have provided their valuable thoughts and input into this Guide.

We acknowledge the contributions of: Shan Prihar from Transport Canada; Harry Wruck and Joseph Keller from the Department of Justice; Marilyn Issavian, Albert Ho and Karen Layton from Environment Canada's Finance and Administration; Jonathan Gee from the Inspections Division of Environmental Protection; Dick Boak and Lidia Mozetic from Environmental Conservation; Ken Wile from the Emergencies Division of Environmental Protection; and Colin Wykes and Bev Defehr from the Enforcement and Emergencies Branch of Environmental Protection.

Stephen G. Pond
Head

Marlene Elliott
Project Officer

Civil Litigation Liaison Division
Environmental Protection
Pacific and Yukon Region
Environment Canada

CALCULATING CLEAN-UP COSTS OF POLLUTION INCIDENTS

AN ENVIRONMENT CANADA REGIONAL GUIDE

TABLE OF CONTENTS

<u>Chapter</u>	<u>Title</u>	<u>Page</u>
	Introduction	1
1.0	Accounting Principles and Practices	2
	1.01 Full Costing	
	1.02 Direct Costs	
	1.03 Indirect Costs	
	1.04 Depreciation	
	1.05 Cost of Capital	
	1.06 Employer's Share of Employee Benefits (EBP)	
	1.07 Administration	
	a) Environment Canada Regional Administration	
	b) Environment Canada Corporate Administration	
	1.08 Goods and Services Tax	
	1.09 Documentation of Costs	
	1.10 Accounting Guidelines	
2.0	Reporting Format	5
	2.01 Aim	
	2.02 Summary Section	
	a) Index	
	b) Pollution Incident Report	
	c) Executive Cost Summary	
	d) Departmental Cost Summary	
3.0	Schedule-by-Schedule Description to Costing	6
	3.01 Materials and Supplies	
	3.02 Contract Services	
	3.03 Travel	
	3.04 Salaries - Full Time and Term Personnel	
	3.05 Overtime	

<u>Chapter</u>	<u>Title</u>	<u>Page</u>
	3.06 Other Allowances	
	3.07 Pollution Counter-Measure Equipment (PCME)	
	3.08 Vehicles	
	3.09 Administration	
4.0	Administration of Document	11
	4.01 Coding	
	4.02 Other Costs	
	a) Inter-regional	
	b) Inter-departmental	
	c) Inter-governmental (Provincial/Municipal)	
	4.03 Filing and Accounting	
	a) Incidents Costing Less than \$50,000	
	b) Incidents Costing in Excess of \$50,000	
	c) Accounts Receivable	
	4.04 Contingencies	

Introduction

In the past five years, Environment Canada has responded to an increasing number of oil spills, chemical spills and other pollution-causing incidents. The clean-up of the incidents have cost the Department hundreds of employee hours and large financial expenditures; not to mention the damage - sometimes irreversible - to the environment. The party or parties responsible for pollution-causing incidents are required to pay the cost of the cleanup. This process of requiring the polluter to pay is called "cost recovery".

The Department's most valuable experience was in the early 1990's when it participated in the Nestucca court case which resulted from an oil spill on the West Coast of Canada. It was during this case that the Department gained considerable knowledge of the principles and practices of cost recovery. Although the Nestucca case included the recovery of costs for environmental damages, this manual does not; it focuses strictly on the recovery of government expenditures needed to clean up or mitigate a pollution-causing situation.

This manual began as an adaptation of Transport Canada's Marine Pollution Costing Principles and Documentation Standards (1992), and like that document is an expression of the Treasury Board's Guide to the Costing of Outputs (1989). Through various adaptations, this manual has developed into a guideline of the principles and practices the Department uses in calculating the costs of a pollution incident.

Transport Canada leads the federal departments in the cleanup of major ship source pollution incidents. In such cases, Transport Canada will also lead the federal departments in the cost recovery process. The Department's costs will be calculated in conjunction with Transport Canada's costs. In cases where Environment Canada is the lead Department and other federal departments contribute resources to the cleanup operations, their costs should be calculated using principles and practices equivalent to those outlined in this manual and added to the Department's costs for the purpose of making a consolidated claim to the polluter.

The manual is laid out in the following way. Chapter one defines the cost-accounting principles and practices; chapter two describes the format of the final document to be produced; chapter three provides a section-by-section guide to each area of expenditure that needs to be documented; and chapter four explains the overall administrative procedures and what to do once the final cost is completed.

1.0 Accounting Principles and Practices

1.01 Full Costing

The purpose behind these procedures is to determine the full cost to the Department of the response to a pollution incident. Full cost is defined as the sum of all costs, direct and indirect, incurred by the government in the supply of a good, service, property, or right or privilege, including: services provided without charge by other federal government departments; employer's share of employee benefits; and annualized capital costs.

1.02 Direct Costs

Direct Costs are costs that would only be incurred as a result of the production or provision of a good or service and which are attributable to their provision. They can be allocated directly to the good or service, and should be relatively straightforward to identify and measure. Normally, these direct costs include: labour, including employee benefits; operating costs, such as travel, professional services; and material costs.

1.03 Indirect Costs

Indirect costs are not directly traceable to an incident. Examples include the cost of routine maintenance for the emergency vehicles and other equipment.

1.04 Depreciation

Depreciation is the process whereby the cost of tangible fixed assets is spread over its expected economic life. The straight line method is used to calculate depreciation of departmental assets where original acquisition cost less salvage value (if applicable) is divided by the expected economic life. Any capital improvements or additions would be added to the book value of the asset and depreciated over the remaining economic life of the asset.

1.05 Cost of Capital

The cost of capital represents the cost to the Department of financing the purchase of the assets used in carrying out its activities. This financing cost is borne by the general Canadian taxpayer and therefore, like other government expenditures, is subject to recovery from users of the department's

services and facilities. To calculate the cost of capital, one multiplies the 'average net book value (NBV) of the assets employed' by an 'interest rate'. The three year average of the composite interest rate on the government's unmatured debt is used to calculate cost of capital.

1.06 Employer's Share of Employee Benefits (EBP)

The cost to the employer of a variety of employee benefits is included in the pollution incident costing as predetermined rates of either full time personnel or term personnel salaries.

The EBP components for full time personnel salaries are as follows:

- Pensions
 - Canada Pension Plan/Quebec Pension Plan
 - Public Service Superannuation Plan, Supplementary Return Benefit Act
- Unemployment Insurance Contributions
- Provincial Health Premiums
- Disability Insurance
- Public Service Health Care Plan
- Public Service Management Insurance Plan
- Dental Plan
- Severance Pay

The EBP components for term personnel salaries are as follows:

- Canada Pension Plan/Quebec Pension Plan
- Unemployment Insurance Contributions
- 4 % Vacation Pay

The rates are periodically reviewed and recalculated in conjunction with Treasury Board.

1.07 Administration

The following administration costs form part of all pollution incidents:

a) Environment Canada Regional Administration

The regional administration overhead rate is calculated by dividing the sum of the regional administration responsibility centres previous year's actual expenditures such as postage, supplies and library costs by the total previous year's regional expenditures. The regional administration responsibility centres are defined in the Operating Plan Framework (OPF) under program 6.1 entitled "Effective Accountability and Priority Setting Are Achieved" and

Chapter 1.0 Accounting Principles and Practices

include the Regional Director General's Office, Finance and Administration, etc. The resulting percentage is applied to the sum of materials and supplies, travel, full time personnel salaries, term personnel salaries, and other allowances.

b) Environment Canada Corporate Administration

The Department's corporate administration overhead rate is calculated by dividing the Department's previous year's corporate administration by the total previous year's expenditures less overtime to arrive at a single administration rate. Corporate administration is defined in the Operating Plan Framework (OPF) under program 6.1 entitled "Effective Accountability and Priority Setting Are Achieved" and include the Assistant Deputy Minister's Office, Headquarters Finance and Administration, Human Resources, Infomatics, etc. The resulting percentage is applied to the sum of materials and supplies, travel, full time personnel salaries, term personnel salaries and other allowances.

1.08 Goods and Services Tax

An important addendum is the addition of the Goods and Services Tax (GST) as of January 1, 1991 to the final claim amount for domestic polluters. The GST is a value added tax that must be included only when the claim is billed. Therefore, to avoid double-counting, GST paid by the Department must be excluded from the costing.

1.09 Documentation of Costs

Costs attributed to the pollution incident will be documented based on a record regularly kept in the ordinary course of business. The Regional Manager of Finance and Administration (or delegate) in the lead region will maintain documentation binders supporting the costs.

1.10 Accounting Guidelines

The guidelines presented in this manual are reflective of Environment Canada's specific needs and mandate. At the same time, the guidelines are consistent with proper business accounting principles.

It is recognized that other departments may report costs in different formats reflecting differences in organization, service lines and approach. Departures in reporting between departments may be unavoidable due to different methods of administration. However, there must be agreement on how total Crown costs should be consolidated and displayed.

2.0 Reporting Format

2.01 Aim

Complete and accurate records of actions in responding to a pollution incident must be kept. The information is critical to any prosecution or recovery of costs. This manual is to assist in putting the information together in a workable format that can be used in the processing of a claim against a polluter. The completeness of the documentation is important. Costs need to be substantiated.

The final product of this manual is intended to be a clear, concise accounting record of the cost of a pollution incident. The record consists of two sections. The first section is the summary section and is described below. The second section is the schedule-by-schedule costing analysis and is described in the following chapter.

2.02 Summary Section

The summary section contains an index, pollution incident report (PIR), executive cost summary and a Departmental cost summary.

a) Index

The index identifies the location of major sections of the costing within the documentation package. This is important for ease of access and review.

b) Pollution Incident Report

The Pollution Incident Report (PIR) is included to record basic data from the incident.

c) Executive Cost Summary

The Executive Cost Summary consists of a short cost summary for each government department supplying resources to the clean-up and the total cost of the clean-up operation.

d) Departmental Cost Summary

The Departmental Cost Summary consists of a short summary for each cost schedule (i.e. materials and supplies, services) and the total cost of the clean-up operation for the Department.

3.0 Schedule-by-Schedule Description of Costing

3.01 Materials and Supplies - Schedule 1:

a) Principles:

This section includes the cost of all materials and supplies used in the clean-up operation and not included in other categories. All materials and supplies, whether purchased directly for use in the clean-up operation, or requisitioned from stores, are to be included at their acquisition cost. Acquisition cost includes freight, duty and taxes (where applicable). Any GST paid by the Department is excluded as it will be included at the time of the billing.

b) Documentation

Material purchased directly for use is to be documented by the supplier's invoice(s). The invoice must indicate that the material was for use on the incident (most often indicated by the assigned project code).

Material requisitioned from stores is to be documented by a requisition indicating that the material is for use on the incident, stock number, description of material, quantity, price, and authorization.

The Regional Environmental Emergencies Coordinator (REEC) must ensure that materials and supplies left over at the end of the incident and still usable are excluded from charges to the incident.

3.02 Contract Services - Schedule 2:

a) Principles:

Contract services acquired for clean-up operations are to be included in the cost of an incident. Contractors' invoices must clearly indicate that the work performed or service rendered was to benefit the clean-up operation. Services normally contracted for include transportation, remote sensing, communications, clean-up operations, and rentals. Any GST paid by the Department is excluded as it will be included at the time of the billing.

Chapter 3.0 Schedule-by-Schedule Description of Costing

b) Documentation:

Contract services are to be documented by the supplier's invoice(s) accompanied by copies of contractual agreements indicating the type of service being purchased, the unit cost, hourly rate, quantity, time period, and the total contractual obligation.

c) Use of Expert Services

This area includes all costs and disbursements incurred by experts and those assisting experts in the preparation and research of environmental damage claims. As well, it includes all work performed in providing an assessment of environmental damages resulting from an environmental contamination. These costs and disbursements include not only the work performed by the experts but also the preliminary work that is done which provides the factual basis necessary before the expert is able to reach his or her opinion including, but not limited to, any surveys and other studies or research that is performed.

3.03 Travel - Schedule 3:

a) Principles:

This includes the actual travel costs incurred by personnel assigned to the incident. Any GST paid by the Department is to be removed from travel costs. The GST amount for travel is 6/106 or 5.66% of the total travel expenses incurred in Canada net of any expenses paid directly by the Department (e.g. airline tickets). Audited travel claims will already have the GST (5.66%) removed.

b) Documentation:

Travel costs must be supported by properly authorized Travel Authority, Advance and Claim forms. The forms will show clearly the purpose for the travel. Properly authorized forms are to be submitted together with copies of paid vouchers for each individual who is required to travel.

3.04 Salaries - Full Time and Term Personnel - Schedule 4:

a) Principles:

The hours that personnel are assigned to the incident will be charged at the rate of pay applicable to the employee at that time, plus an allocation for average paid leave. The total rate will be calculated by one of the two following methods, each of which gives the same result:

Chapter 3.0 Schedule-by-Schedule Description of Costing

i) Annual Salary Basis

Annual Salary divided by 222 days = Total Daily Rate

ii) Hourly Rate Basis

Hourly rate x 261 days/222 = Total Hourly Rate

The factor is based on 222 net working days per year out of 261 available week days and is calculated as follows:

Total days per year		365 1/4
Less:	weekends	- 104
	average annual leave	- 16
	average statutory holidays	- 11
	average sick leave	- 9
	average other paid leave	- 4
	Net working days per year	<u>222 1/4</u>
	(rounded to 222)	

The hourly salary rate includes Employer's Share of Employee Benefits (refer to chapter 2.06).

b) Documentation:

Whenever possible the assignment of personnel to the incident should be documented specifying the reason for the assignment. In emergency situations, it is not always possible to take the time to create this supporting document before the assignment, but documentation should be prepared as soon as possible. Thus, charges for the use of full time and term personnel will be supported by documents indicating the details of the assignment (why, when, where) and copies of relevant contracts indicating wage rates.

Time of employees will be charged to the incident whenever the employee is taken off his/her regular duties and assigned exclusively to the incident. Whenever there is doubt that the employee's time has been completely dedicated to the incident (e.g. the employee is working mainly on the incident but is concurrently performing some regular duties) the time will not be considered an assignment to the incident.

Employees in purely administrative-type work (e.g. accounts payable) are not normally considered to be dedicated to the incident even though working full time on it. An exception may be made in the case of an incident sufficiently large to warrant the establishment of a dedicated financial/administrative/clerical facility.

Chapter 3.0 Schedule-by-Schedule Description of Costing

In instances where back-up personnel are hired to fill in for employees assigned to the incident, there must not be a duplication of charges. The back-up personnel are considered to be regular costs not chargeable to the incident, and the regular personnel assigned to the incident will be charged as previously prescribed.

3.05 Overtime - Schedule 5:

a) **Principles:**

Overtime represents the payment of salaries for time worked in excess of the stipulated daily requirements (ie. appropriate collective bargaining agreement between the employee's union and the Treasury Board). Overtime must have been incurred as a direct result of the pollution incident.

The hourly rate for overtime does not include the employer's share of employee benefits, as overtime does not attract such charges.

b) **Documentation:**

Ability to support the inclusion of overtime costs as having been reasonably incurred specifically because of the incident is extremely important. In certain administrative areas, such as payment of suppliers' invoices, it is necessary to be able to show that the overtime resulted exclusively from the incident and did not result from general workload. The advice of the REEC will be sought whenever there is doubt about the supportability of the charge.

Overtime must be documented by properly authorized "Extra Duty Pay and Shift Work Reports (EDR)" or equivalent documentation indicating the employee's name, group, level, date, work start and stop times, name and location of the incident, etc.

3.06 Other Allowances - Schedule 6:

a) **Principles:**

Various types of special allowances/entitlements (ie. standby pay, security duty) may be payable according to the appropriate collective bargaining agreement between the employee's union and Treasury Board. These allowances are to be included in the cost of the incident.

b) **Documentation:**

Documentation will consist of approved requisitions for payment (ie. approved extra duty reports), together with extracts from the relevant contracts between the employee's union and the Treasury Board.

Chapter 3.0 Schedule-by-Schedule Description of Costing

3.07 Pollution Counter-Measures Equipment (PCME) - Schedule 7:

a) Principles:

Use of Pollution Counter-Measures Equipment (PCME) will be costed in accordance with the industry standard method, whereby charges are based on the recovery of costs, including the cost of purchasing and maintaining the equipment in a state of readiness.

b) Documentation:

The use of PCME on the incident must be assigned by the Regional Environmental Emergencies Coordinator. Documented information includes incident and site names, dates of assignment, equipment description, whether the equipment was in operation or on stand-by, operator's name, equipment storage location, and brief notes on usefulness of equipment. This form is to be retained in the documentation binder.

3.08 Vehicles - Schedule 8:

a) Principles:

Vehicle rates are based on information contained in the Conservation and Protection Fleet Management System. The rates reflect operating and maintenance costs including gas, oil and repairs.

b) Documentation:

The use of all vehicles should be documented in a reasonable manner. Documentation will be filed in the documentation binder.

3.09 Administration - Schedule 9:

Administration is described in full detail in the Accounting Principles section of the manual. Refer to Chapter 2.07.

4.0 Administration

4.01 Coding

Special project codes are to be set up to capture pollution incident costs in the reporting system. Separate project codes are to be established for each incident. The REEC is responsible for requesting a project code and determining the number of project codes required for an incident.

4.02 Other Costs

a) Inter-Regional:

The lead region is responsible for the overall costing of the incident. Each Departmental region supplying resources to the incident is to determine the full cost of their participation independently and submit their costs together with supporting documentation to the lead region for final costing.

b) Inter-Departmental:

Costs of other federal departments are to be included for the purpose of making one claim on behalf of the Crown. Other departments will be requested to supply complete documentation (i.e. copies of invoices, contract, travel claims, overtime reports) supporting their costs.

c) Inter-governmental (Provincial/Municipal):

When Provincial/Municipal governments are involved, discussions should be undertaken to determine if their claim is to be made either separate from, or included with, the Crown's claim. In some cases, these organizations may choose to make their own claim against the polluter.

4.03 Filing and Accounting

The following procedures pertain to the filing and accounting of all pollution incidents:

a) Incidents Costing Less than \$50,000.00:

With the exception of Mystery Spills (spills in which the source is unknown) all incidents costing less than \$50,000.00 are to be billed directly by the Region.

b) Incidents Costing in Excess of \$50,000.00:

All fully documented incidents costing in excess of \$50,000.00 are to be reviewed by the Manager of Finance and Administration (or delegate) to ensure the technical process of costing and accounting is correct.

Chapter 4.0 Administration

Upon completion of the review, the Regional Environmental Emergencies Coordinator (REEC) will advise the Manager of Finance and Administration (or delegate) of any costing recommendations and appropriate billing action.

c) Accounts Receivable:

When the claim is filed with the polluter, it is to be set up as an account receivable. If the account remains unpaid after a reasonable time frame, a decision will be made by Conservation and Protection as to whether the account is to be turned over to the Department of Justice for assistance.

4.04 Contingencies

Upon completion of the pollution incident costing, but prior to filing the claim, further transactions or events may occur which could cause additional expenditures. These potential expenditures are referred to as contingencies. Contract disputes, retroactive salary revisions, and legal claims are examples of possible contingencies. Contingencies are to be included in the costing and reported on the appropriate costing schedule.