

**SPILLS OF HAZARDOUS AND TOXIC SUBSTANCES
ONTO YUKON CROWN LANDS:**

**A REVIEW OF LEGISLATION,
GOVERNMENTAL ADMINISTRATION,
AND OF INDUSTRIAL REACTION**

by
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Submitted in Partial Fulfilment of the
Requirements for the Degree,
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BY

ERIC A. SOPROVICH

A practicum submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

MASTER OF NATURAL RESOURCES MANAGEMENT

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ABSTRACT

Major national and international bodies have recognized a need to enhance protection of the environment from the accidental consequences of human activity involving hazardous and toxic substances. Spill prevention, spill response, and environmental remediation are key areas of concern highlighted by organizations such as the International Joint Commission and the World Commission on Environment and Development.

In society's desire to reduce the effects of chronic discharges of hazardous and toxic substances, spills are emerging as primary sources of contaminants entering aquatic systems (Mackay, 1989). The fragility of the Yukon's northern environment, and the relative severity and persistence of environmental impact from spills of these substances, underline a need for an effective governmental program for spill prevention, response, and remediation. Yukon industry, as the principle generator of spilled products, also has an important role to play in environmental protection.

The information contained within this practicum is derived from a review of literature and a review of federal and Yukon statutes, as well as from interviews with key individuals in both government and the Yukon private sector. Information received, provided the basis for conclusions and subsequent recommendations.

Legislative and administrative complexities within the Yukon result in both jurisdictional overlaps and gaps in the provision of government's environmental protection programs. The multiplicity of agencies involved with spill programming detracts from a systematic governmental response to spills. Yukon industry is likewise frustrated by the duplication of environmental regimes and by a lack of leadership from government for environmental protection.

Environment Canada emerged from the study as a clear leader, best capable of assuming a full role in the area of spill program delivery in the Yukon. It is recommended that the Environmental Protection Service (a department within Environment Canada) assume the primary responsibility for prevention, response, and environmental remediation of spills of hazardous and toxic substances onto federal Crown lands in the Yukon. It is further recommended that the federal government provide Environment Canada with the means to accomplish this responsibility.

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This document is dedicated to my family: wife Beverly, and sons Jordan and Benjamin. Without their love and support — and antics — this practicum would not have been possible. Jordan wanted me to call *his* book *Robin Hood*. So I am.

CONTENTS

ABSTRACT i

ACKNOWLEDGEMENTS iii

Chapter	Page
1 INTRODUCTION AND OBJECTIVES	1
Introduction	1
Problem Statement	2
Importance of Study	3
Objectives	3
Exclusions and Limitations	4
Methods	5
Methods for Chapter 2	5
Methods for Chapters 3 and 4	5
Methods for Chapter 5	6
2 LEGAL FOUNDATIONS	8
General Considerations	8
Federal Legislation	15
Canadian Environmental Protection Act	15
Fisheries Act	23
Yukon Waters Act	28
Northern Inland Waters Act	34
Territorial Lands Act	38
Legislation of the Yukon Territory	45
Environment Act	45
Gasoline Handling Act	59
Other Federal and Territorial Legislation	61
Migratory Birds Regulations	61
National Fire Code of Canada	61
Transportation of Dangerous Goods Act	64
Yukon First Nation Land Claims	67

3	ADMINISTRATIVE FRAMEWORK	71
	Chapter 3 Introduction	71
	The General Mechanics of Response	73
	The Agencies	77
	Environmental Protection Service	77
	Water Resources Division, DIAND	84
	Land Resources Division, DIAND	86
	Department of Fisheries and Oceans	88
	YTG Public Safety Branch	90
	Justice Canada	93
	Other Agencies	95
4	LEGISLATIVE / AGENCY LINKAGES	99
	Chapter 4 Introduction	99
	Federal Agencies and Legislation	99
	EPS, Environment Canada: DEA	99
	Dept. of Fisheries and Oceans: DFO Act	104
	Water Resources Division, DIAND: DIAND Act	108
	Land Resources Division, DIAND: DIAND Act	112
	Territorial Agencies and Legislation	117
	Protective Services Branch: Gasoline Handling Act	118
	Environmental Protection Branch: Environment Act	121
5	INDUSTRY'S PERSPECTIVE	125
	Chapter 5 Introduction	125
	Yukon Framework	128
6	DISCUSSION	136
7	SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	144
	Summary	144
	Federal Government - EPS Life-Cycle Management	147
	Conclusions and Recommendations	147
	Federal Government - EPS Lead Agency	152
	Conclusions and Recommendations	152

Federal Government - Same Arrangement	156
Conclusions and Recommendations	156
Other Measures	158
Conclusions and Recommendations	158
Industry	160
Conclusions and Recommendations	160
Other Recommendations	162
Conclusions and Recommendations	162
PERSONAL COMMUNICATIONS / INTERVIEWS	165
REFERENCES CITED	167
LEGISLATION CITED	174
CASES CITED	175

LIST OF TABLES

Table		Page
1	Lead Agency Designation for Spill Response	74

CHAPTER 1 - INTRODUCTION AND OBJECTIVES

1.1 INTRODUCTION

The handling and storage of hazardous and toxic substances involves a certain degree of risk. This risk includes possible exposure of these substances to humans and to the environment due to storage losses, improper handling, and other accidents causing spills. Hazardous and toxic substances can, on contact, severely impact humans and the environment. Therefore, governments have prescribed duties and obligations regarding spills of these substances in environmental legislation. Industry in the Yukon, as elsewhere in Canada, has a need to know its legal duties through which society expresses its expectations respecting protection of the environment from episodic releases of these potentially damaging substances.

This study provides an overview of the present situation on Crown lands in the Yukon for governmental spill prevention, spill response, and environmental remediation programming, as well as the legislative basis for these programs. As well, the study presents a sampling of Yukon industry's viewpoint regarding the delivery of environmental protection programs. The intent of the practicum is to provide an insight into legal requirements, governmental administration, and possible strategies to provide improved spill programming in the Yukon.

Information for this practicum was gathered through reviewing legislation and literature, and through personal interviews with individuals employed in government agencies and in private organizations and industries.

1.2 PROBLEM STATEMENT

The International Joint Commission (1988) recognized a need for improved spill programming in many jurisdictions: weaknesses evident to the Commission included inadequate or non-existent spill prevention programs, and a tendency to only superficially remediate the environmental effects of a spill.

Canadian environmental legislation is becoming increasingly complex, and more focused upon the safe life-cycle management of hazardous and toxic substances — substances which may cause environmental damage if accidentally released. Further legislative and administrative complexities within the Yukon stem from a multiplicity of agencies in the two levels of government, each attempting to assert some control, as mandated by particular statutes, over industry's use of hazardous and toxic substances. Despite an administrative framework which theoretically provides a common governmental response to spills, the many actors involved in various aspects of "life-cycle management" occasionally hinder a systematic response as jurisdictions are sorted out. In addition, both jurisdictional overlaps and gaps are evident in the actual provision of government's environmental protection programs.

Yukon industry is frustrated by the duplication of environmental regimes and invites government to provide a one window - one agency mechanism for dealing with environmental matters. In the face of what industry perceives to be poorly defined and executed governmental guidelines and expectations, and uneven enforcement of powerful regulations carrying potentially stiff fines, industry feels it must attempt to meet society's

expectations of good environmental stewardship with neither assistance nor consistency from government.

1.3 IMPORTANCE OF STUDY

Spills are emerging as a primary source of contaminants impacting aquatic environments (Mackay, 1989). The biological effects of contaminants on northern terrestrial and aquatic ecosystems, barring appropriate remediation, can persist for a long time (Schepart et al., 1992). Thus there is an immediate and important need to implement effective systems to protect the fragile northern environment from the accidental consequences of human activity.

This study will critically evaluate spill programming and the delivery of those spill prevention, response, and mitigation programs which are applicable to human activities on Crown lands. By improving delivery of these services, especially prevention programs, government will enhance protection of the Yukon public, and the Yukon's fragile environment.

1.4 OBJECTIVES

The overall purpose of this report was to present an overview of legislation concerning spills of hazardous and toxic substances in the Yukon, governmental capabilities in spill response and environmental protection, and Yukon industry's

viewpoint respecting environmental legislation and government's delivery of environmental protection services. The main objectives of this study were:

- To outline federal and territorial legislation which prescribes personal and corporate duties regarding spills on federal Crown land, and to illuminate the main obligations and deterrents provided by this legislation.
- To identify the government agencies responsible in a spill response capacity for enforcing legislation outlined above, and present their capabilities and weaknesses, often as expressed by agency members, in delivering spill programs.
- To voice some of industry's comments, both positive and negative, regarding current environmental legislation, and to outline some of their experiences in dealing with the agencies responsible for pollution prevention and response programs.
- To develop recommendations for the consideration of government, which they may build upon in order to improve governmental delivery of spill prevention, response, and remediation programming in the Yukon. As well, since industry is the primary potential generator of spills of hazardous and toxic substances, recommendations are made for the private sector.

1.5 EXCLUSIONS AND LIMITATIONS

This study focused on spills of toxic and hazardous substances which occur on Crown land, which comprises over 96 percent of the Yukon's area. The Yukon, being a federal territory, is essentially ruled by federal environmental law and administered by federal agencies. The Territorial government's present minor role, and its potential future role, as well as the limited regulations concerning spills on non-Crown lands, were also discussed where applicable. This study limited itself to the discussion of releases onto soil and into inland bodies of freshwater; it did not include toxic waste management in the Yukon since that subject area has been extensively explored by Siemieniuk (1980),

and is currently being reviewed for the Yukon government by Monenco Consultants Limited (Siemieniuk as project head).

1.6 METHODS

This study evolved via three major phases of information gathering and concept development.

1.6.1 - METHODS FOR CHAPTER 2

The first component of this study, a review and analysis of relevant federal and territorial legislation prescribing personal and corporate duties in case of spills, was researched through review of available literature and individual statutes. Where clarification was required or concept expansion necessary, chapter 2 was augmented by consulting with key government personnel presently administering the various statutes.

1.6.2 - METHODS FOR CHAPTERS 3 AND 4

Personal and telephone interviews provided the basis for obtaining much of the current information utilized to develop chapters 3 and 4 (Administrative Framework, and Legislative / Agency Linkages). The federal and territorial agencies responsible for spill prevention, spill response, and spill remediation were delineated, and key individuals within each agency contacted. A number of individuals within each agency were interviewed to provide a cross-reference of the information and thus a balanced assessment of spill program capabilities within each agency. Interviews conducted were

relatively informal. The following main themes were explored during the interview session:

- agency jurisdiction and authority to prevent, respond to, and remediate spills of hazardous and toxic substances occurring on federal Crown land;
- strengths and/or weaknesses in agency capabilities to provide spill prevention, spill response, and spill remediation services;
- strengths and/or weaknesses in legislation, administered by each agency, prescribing a duty for spill prevention, response, and remediation;
- preliminary assessments of desired changes to agency capabilities or legislation in order to improve spill programming; and
- a review of the agency's manner of approach to spill prevention, spill response, and spill remediation, as well as their approach to enforcement and prosecution.

Although the main thematic areas were structured, supplementary issues and questions evolved during the course of most interviews enabling exploration into a number of related concept areas. Supplementary information for these chapters was garnered through review of pertinent documents such as administrative memoranda and legislation.

1.6.3 - METHODS FOR CHAPTER 5

The final phase of information discernment, respecting Yukon industry's perspective (chapter 5), was accomplished through telephone interviews. As well, the chapter relied upon written information received from local and national industry organizations and upon information contained in symposia literature for subject development (this information is referenced).

Several companies in the major Yukon economic sectors were contacted; each was experienced with hazardous and toxic substances as a component of the company

operation. Person's responsible for or knowledgeable about corporate environmental affairs were interviewed. The following main issues provided the basis for questions posed during the interview:

- positive and/or negative attributes of environmental legislation which define corporate duties respecting prevention of spills, as well as reaction to spills and remediation of the environmental effects;
- positive and/or negative aspects of industry's interaction with those agencies responsible for environmental protection in the Yukon;
- an assessment of improvements in legislation or government's delivery of environmental protection programs the Yukon's private sector deems necessary to enable industry to better protect the environment from spills and enhance compliance; and
- strategies and initiatives taken by Yukon industry in order to keep abreast of, or ahead of, environmental protection (spills) legislation and thus ensure compliance.

Depending upon how individual interviews evolved (for example: upon the manner by which and detail of information which came forward), other thematic points of question were developed and issues explored.

Responses from each interview — experiences, comments, thoughts, and ideas — were compared against other interviews from the private sector (and against the author's own experiences and observations working as an environmental professional in Yukon industry) to provide insight into commonalities. This process, it is hoped, provides a balanced and accurate reflection of Yukon industry's perspective regarding spill prevention, response, and remediation programs; regarding environmental legislation; regarding the agencies administering spill programs; and regarding industry's internal response to spill prevention and preparedness in the Yukon.

CHAPTER 2 - LEGAL FOUNDATION

2.1 GENERAL CONSIDERATIONS

Societies create laws to organize and arrange the activities of individuals and groups of individuals: thus a sense of order is brought to daily conduct. The primary goals of this structuring of human endeavour have been for preservation of society itself and the protection of the individual (Sandborn, 1989). Recent industrial accidents such as the St. Basile le Grande fire and other national and international incidents have imposed their own form of disorder upon society and have served to focus attention upon the consequences of exposure to toxic substances to human and environmental health (Smith, 1989). As a result, contemporary legal effort is evolving from protection of the individual to preservation of the ecosystem (Sandborn, 1989) — the common thread which sustains human and social life.

The international community is well aware of the need for improved legal and administrative mechanisms to manage risks to the environment. Control and management of hazardous wastes and toxic chemicals was one of six priority areas of focus identified by the United Nations Environmental Program (Tingley, 1990). The World Commission on Environment and Development (1987) called upon industry to limit the use of and exposure to toxic chemicals, and called upon government to strengthen and enforce liability for damages resulting from the "unintentional consequences" of release. Indeed, the Commission highlighted an urgency amongst member nations for the development of strong national capabilities, and trans-national regional cooperation in the area of environmental protection. Furthermore, the Commission recommended, among other

things, that governments exercise leadership in the development and enforcement of guidelines or regulations dealing with safe industrial practices. In addition, governments must ensure that plant workers are adequately trained in all aspects of toxic chemicals handling, including a high level of preparedness in case of environmental emergencies.

The Canadian response to environmental protection legislation has been evolving parallel to a growing concern within society regarding the quality of the environment, and the ability of Canadian ecosystems to sustain present and future generations. Recent surveys suggest that Canadians view the release of toxic chemicals into the environment as a serious criminal offence, which should be treated with as much or more concern as other crimes against people and property (Neuman, 1990). Eighty-two percent of Canadians who responded to a national poll taken in July 1989 said that governments should do more to protect the environment (Smith, 1989). That Canadians of all regions and socio-demographic backgrounds share a common set of views about these environmental issues is significant: indeed, Neuman (1990) suggests that a metamorphosis is occurring within contemporary Canadian society which will lead to a gradual integration of environmental considerations into Canadian legislation and policy throughout the 1990's.

Society's current demand for stronger and more comprehensive environmental legislation has grown from an awareness of the inadequacy of regulatory agencies and their legislative tools to effectively manage present realities. Entire regions of Canada are inadequately protected from environmental degradation by present legislation: this

was clearly visible to Bankes (1990) who reviewed those legal instruments designed to protect fragile arctic ecosystems. Hazell (1990) recommended immediate amendments to existing legislation to require all users to submit mandatory oil spill contingency plans and other measures designed to protect arctic waters. He further called for federal law and policy to set a zero discharge objective for toxic chemicals into arctic ecosystems. This sense of legislative deficiency is not restricted to the Canadian arctic front: Rajakoski (1989) implored Arctic nations to adopt a multilateral management aspect to enhance measures for the protection of fragile arctic ecosystems from damage resulting from land-based activities.

Historically, federal initiatives have been largely reactionary: corrections were administered only after environmental damage had occurred. Today, there is a general call for a proactive approach to environmental policy: the design and administration of new environmental legislation must anticipate and prevent environmental problems (Muldoon, 1990; Slater, 1987; Webb, 1988).

Several critics of Canadian environmental legislation attest to a high incidence of covert cooperation between the political and the corporate sectors: this serves to detract from an effective application of present legal instruments. Thompson (1980), who reviewed the Canadian environmental context, described compliance as a process of "negotiation and bargaining." Enforcement of the various environmental regulations has thus been delegated to a secondary and non-effectual role. This view was supported by Nemetz (1986), who characterized Canadian environmental legislation as "a relatively

closed, consensual, and consultative approach with a small number of prosecutions." Rankin (1989) promoted a shift from the consultative approach and a "reduction of the enforcement deficit" by providing for administrative penalties within environmental legislation. This would create a more efficient enforcement mechanism than criminal prosecution, which is often viewed as a sanction of last resort.

Parliament has set a trend with recent legislative amendments to provide for significantly increased penalties for environmental non-compliance (Rovet, 1988). Duncan (1990) and Muldoon (1990) each advanced a counterbalance to this trend by suggesting that companies which maintain compliance be rewarded through tax incentives, negative surcharges, grants, subsidies, or waivers for undertakings to implement improved control measures. Such measures, it was argued, would provide added stimulus for corporations to adopt a pollution prevention approach, and encourage them to strive to meet the requirements imposed by environmental legislation. Where compliance conditions are not met, there is a further tendency to hold corporate officers accountable before the law. Duncan (1990) recommended equipping all federal environmental legislation with statutory provisions which would place liability upon corporate officers, directors, and agents.

The first environmental legislation enacted by Canadian Parliament was passed in 1875 to control the introduction of toxic substances into foodstuffs and medicines (Toft & Hickmann, 1990). Since then, Canadian toxic-substances management legislation has evolved from conservation of resources, to protection of workers' and consumers' health,

to preservation of the environment and the Canadian public. This evolutionary process, however, has resulted in our present piecemeal and fragmentary situation: a poorly integrated approach involving some 24 departments responsible for applying 30 federal statutes, each covering different aspects of toxic substances control (Muldoon, 1990).

Jurisdiction over the control and management of toxic substances does not fall clearly to either the federal or provincial governments under the Canadian Constitution (Duncan, 1985; Smith, 1989). The federal government assumes jurisdiction over toxic substances management under its general powers to make laws for the Peace, Order and Good Government of Canada (POGG); as well it has exclusive authority over inland and coastal fisheries, navigation and shipping, regulation of trade and commerce, and the criminal law (Duncan, 1985; Simon, 1987; Smith, 1989). The federal POGG powers have received wide acceptability within the court system: recent rulings support an even broader federal role in the management and control of toxic substances (Smith, 1989).

Provincial jurisdiction over toxic substance management is based upon a province's power to regulate local works and undertakings, property and civil rights in the province, matters of a local or private nature, and all private property within provincial boundaries and provincial lands (Smith, 1989). A province can develop legislation equivalent to federal statutes for broader application within its' boundaries. With federal agreement, the province can effectively assume management authority from the federal Crown under the equivalency legislation. The federal government, however, retains responsibility for setting national standards, and ensuring that equivalency is met

when administered by all provincial counterparts. Until formalized agreements are made and national standards set, however, federal agencies are mandated to monitor and enforce control of toxic substances utilizing those legislative instruments at their disposal (Duncan, 1990).

The federal government is empowered to act with supreme authority in the Yukon and Northwest Territories through its' ownership of federal Crown lands. Although Ottawa is committed to the principle of "political development" in the Yukon, devolution of powers from federal regulatory authorities to their territorial counterparts has been a slow process. Those areas where the territorial government has enacted parallel or replacement-oriented policies have been marked by uncertainty or duplication in the exercise of control over development activities which may impact the North (Hazell, 1990).

The following review of environmental legislation presents a decidedly federal concentration, since federal statutes and federal regulatory agencies command the key influence upon activities which occur in the Yukon. More than 96 per cent of Yukon territorial land is held by the Crown, and is subject to direct federal administration (Savoie, pers. comm. 1992). Applicable Territorial statutes are also discussed since the process of devolution — as well as constitutional evolution — may bring relevancy to this legislation across the Yukon at some later date. The reader is, however, cautioned that many Yukon statutes do not enjoy a broad application within the Territory at present: many are confined to activities which occur on that less than four per cent of the Yukon

land mass which has been transferred from the Crown to the Territorial government for the beneficial use of the government and people of the Yukon. Exceptions to federal supremacy do exist, for example, where formal agreements have been made for the transfer of responsibilities to the Territorial government.

Additionally, this discussion takes an environmental protection perspective, in keeping with the nature of this study. The main focus is thus upon those components of the relevant environmental statutes which impose individual and corporate responsibility for the prevention, mitigation, and reporting of spills of toxic or hazardous substances. This study concentrates upon mining activities which occur on Crown land, but has much application to other activities which take place on Crown land. However, Territorially-regulated activities, such as the Transportation of Dangerous Goods, fall largely outside the parameters of this study.

2.2 FEDERAL LEGISLATION

2.2.1 CANADIAN ENVIRONMENTAL PROTECTION ACT

The Canadian Environmental Protection Act (R.S.C. 1985, c. 16 (4th Supp.)) was created in 1988 out of a necessity to revise the outdated Environmental Contaminants Act, and to harmonize Canadian environmental legislation with that of other nations (Smith, 1989). This broad piece of legislation confers new powers upon the Minister of Environment and the Minister of National Health & Welfare to control toxic substances (Heskin, 1989). The Act also serves to consolidate much of the federal pollution control legislation including the Environmental Contaminants Act, the Ocean Dumping Control Act, the Clean Air Act, and parts of the Canada Water Act (Malvern et al, 1990; Morrison & Niemczak, 1989). Federal standing to draft and administer this legislation is based upon the POGG power, and Ottawa's authority over criminal law (Smith, 1989).

CEPA establishes a preventative approach to environmental protection (Environment Canada, 1988a), with a primary focus upon the appropriate management of toxic substances from "cradle to grave" (Heskin, 1989). This protective goal is met under CEPA through research programs, monitoring programs, the development and enforcement of operational standards, and (especially) through the regulation of toxic substances at each stage of their life-cycle — from manufacture or import to disposal.

Part I of CEPA provides for broad Ministerial authority to establish water quality research, monitoring, and control programs. Interestingly, under section 8 the Minister of Environment can establish control over corporate industrial activities which involve

toxic or other substances by developing industry-wide guidelines to manage specific substances or processes. This section authorizes the Minister to

formulate...

(d) environmental codes of practice specifying procedures, practices, or release limits...for environmental control relating to...undertakings and activities during any phase of their development and operation....

(s. 8(1)(d))

The government therefore has a great deal of latitude to influence business conduct in the interest of environmental control. Guidelines could potentially extend to specific operational procedures within an industrial setting, including specifying appropriate practices for spill prevention and spill response.

Part II of CEPA provides the legislative basis for the control of specified toxic substances. Section 11 of the Act provides a definition of a toxic substance:

a substance is toxic if it is entering or may enter the environment in a quantity or concentration or under conditions

(a) having or that may have an immediate or long-term harmful effect on the environment;

(b) constituting or that may constitute a danger to the environment on which human health depends; or

(c) constituting or that may constitute a danger in Canada to human life or health.

Two important concepts are addressed by this definition: the actual toxicity of the substance, and the potential for exposure to the environment or to humans (Heskin, 1989).

Consequentially, the effect of exposure is also significant.

Substances are regulated under Part II of the Act if they fit the criteria of section 11, and if the Minister of the Environment or the Minister of National Health & Welfare recommends adding that substance to the List of Toxic Substances found in Schedule I.

Prior to regulation, however, a substance may be placed on the Priority Substances List as defined in section 12. The latter list is reserved for those substances displaying toxic characteristics but for which scientific proof is not yet established.

The Priority Substances List is augmented through evaluation of environmental monitoring, research, accidents and spills, public complaints, and/or by Ministerial direction (Environment Canada, 1988b). Those criteria which guide selection for the Priority Substances List include:

- the potential to adversely affect human health or the environment;
- the potential to accumulate to significant concentrations in air, water, soil, sediment, or tissue; and
- the possibility of release into the environment in significant quantities or concentrations.

(Environment Canada, 1992)

Each substance elected to the Priority Substances List is thereafter subjected to a critical scientific evaluation to assess toxicity and the effects of exposure upon human health and the environment. This risk assessment process, therefore, forms the basis for the incremental expansion of the List of Toxic Substances, and for the development of accompanying regulations.

Section 34 gives the federal government broad authority to enact regulations with a wide range of control over listed toxic substances. Of particular interest are provisions found under subsection 34(1) which, pursuant to subsection 34(3), allow the federal authority to impose procedures for the storage, handling, and post-contingency phases

of life-cycle management; including

- (o) the manner in which and conditions under which the substance or material containing the substance may be stored, displayed, [and] handled...;
- (q) the manner, conditions, places and method of disposal of the substance or a product or material containing the substance...;
- (t) the conduct of...measurements or monitoring of the substance and the submission of the results to the Minister....

Subsection 34(2) allows for certain exemptions, while 34(3) provides a limitation: parallel regulations are not to be enacted if a substance is already regulated under another Act of Parliament.

Part II legislation appears to effectively limit federal management of toxic substances to those Listed. Section 35, however, provides the government with some latitude for control of other potentially (non-Listed) toxic substances in situations which pose a threat to the environment or to humans. Interim orders can be created where

- (a) a substance
 - (i) is not specified on the List of Toxic Substances...and the Ministers believe that it is toxic, or
 - (ii) is specified on that List and the Ministers believe that it is not adequately regulated, and

(b) the Ministers believe that immediate action is required to deal with a significant danger to the environment or to human life or health....

(s. 35(1))

Any provision for control contained under subsections 34(1) or 34(2) may be made with respect to an Interim Order. This section of the Act, therefore, entrenches wider controlling powers — which include imposition of corporate and individual responsibilities — in case of real or perceived emergencies involving toxic substances. The probability of the federal government utilizing this section of the Act for general control of non-Listed substances is remote, however (Allan, pers. comm. 1992a). Section

35 provisions are thus reserved for situations of dire emergency where other legislative controls fail.

Actual and potential releases (including spills) of toxic substances into the environment in contravention of Part II regulations are dealt with under section 36 of the Act. Under this section, a person is responsible to report actual or impending releases to regulatory authorities and to notify any member of the public who may be affected. Additional duties include the undertaking of remedial measures: a described person is immediately required

to take all reasonable measures...to prevent the release, or...to remedy any dangerous condition or reduce or mitigate any danger to the environment or to human life or to health that results from...or may be reasonably expected to result if the substance is released....

(s. 36(1)(b))

This responsibility extends to persons described under subsection 36(2) and includes owners or those in charge of a substance, or any person who causes or contributes to the release or likelihood of release. Property owners who are affected by a spill are likewise required to report a release as soon as practicable.

The lack of clearly enforceable standards of operation on federal lands is a material concern to critics of Canadian environmental law (Duncan 1990). Part IV of CEPA accommodates control of some activities occurring on federal Crown lands which may pose a threat to the environment or to humans. Section 54 provides the Minister of Environment with the right to make regulations for environmental protection which apply to undertakings on federal lands. Regulations are made under this section of CEPA *only*

if mechanisms do not exist to provide complementary regulations under another Act of Parliament *and* if the Minister responsible for the administration of a particular undertaking or of federal lands consents to what may be viewed as an intrusion.

Section 57 deals with spills or releases of substances, or the "reasonable likelihood" of a release in contravention of regulations made under the authority granted in section 54 (federal lands). Requirements for reporting and remediation, and the criterion for determining the responsible persons, are similar to those specified earlier under section 36.

The Canadian Environmental Protection Act provides for some of the strongest penalties for violations available in any Canadian environmental legislation (Heskin, 1989). Section 113 administers perhaps the broadest range of offences under CEPA, including: failure to report a release or impending release of toxic substances or to notify the public or take appropriate measures; failure to comply with an Interim Order made pursuant to section 35; and contravention of section 54 (regulations made where other Acts of Parliament do not apply to activities occurring upon federal lands). Commission of an offence under this section brings to force liability

- (o) on summary conviction, to a fine not exceeding three hundred thousand dollars or to imprisonment for a term not exceeding six months, or to both, or
- (p) on conviction on indictment, to a fine not exceeding one million dollars or to imprisonment for a term not exceeding three years, or to both.

If a person, in contravention of the Act, displays intent leading to environmental damage, or wanton or reckless behavior which endangers the life of another individual,

that person is liable to a fine or to imprisonment for up to five years, or to a combination of a fine and imprisonment (s. 115(1)). Where such behavior results in death or bodily harm to another person, section 220 or 221 of the Criminal Code (Criminal Negligence) can be invoked. Any person found guilty of section 220 of the Criminal Code (causing death by criminal negligence) is liable to imprisonment for life (Martin's Annual Criminal Code, 1992).

Contravention of any other provision of the Act not otherwise treated, or of any regulation made under the Act, is punishable on summary conviction with a fine not exceeding \$200,000 or to imprisonment for up to six months or to both (s. 116). Worth noting under section 118 is that offences which span several days or which occur on separate occasions are considered as separate convictable offences for each day the offence occurs.

Provisions which place liability upon Directors, Officers, or Agents of a corporation are becoming commonplace in Canadian environmental legislation, and serve to link the actions of a corporation to those individuals who influence corporate direction.

Corporate Directors are held liable for prosecution when it is ascertained that the officer allowed, authorized, or otherwise assisted in the commission of an offence (s. 122).

Additional offences and matching punishments are specified in the various sections under Part VII of the Act. In addition, CEPA explicitly states that civil action is not

excluded. Finally, specification in CEPA does not preclude the application of provisions included in other Acts of Parliament or under provincial legislation.

The defence of due diligence is entrenched in section 125 of CEPA, and is another legislative provision which is common to environmental law. Although some environmental critics anguish over this defence, Kier (1985) values the defence of due diligence for what he believes is a positive role this legal tool plays in the enforcement of pollution offences. The Crown need only prove the actus reus — the act itself — and the onus then shifts to the accused person to show that all reasonable care was taken to prevent commission of the crime. A person is exempted from liability under CEPA if he can demonstrate "he exercised all due diligence" to prevent commission of an offence under the Act (s. 125(1)). The personal due diligence defence does not apply for violations where fraud or criminal negligence are involved in the commission of a crime under the Act.

Justice Dickson provides perhaps the most comprehensive legal analysis of the due diligence defence in *R. v. Sault Ste. Marie*:

The due diligence which must be established is that of the accused alone. Where an employer is charged in respect of an act committed by an employee acting in the course of employment, the question will be whether the act took place without the accused's direction or approval, thus negating wilful involvement of the accused, and whether the accused exercised all reasonable care by establishing a proper system to prevent commission of the offence and by taking reasonable steps to ensure the effective operation of the system.

(*R. v. City of Sault Ste. Marie* (1978) 40 C.C.C. (2d) 353)

Thus, while section 124(1) of CEPA provides for prosecution of an offence resulting from the work activities of an employee or agent of the accused (employer), the Act also provides a counterbalance in the form of the due diligence defence — which is particularly oriented toward fraudulent and negligent acts leading to an offence (s. 125(2)). An employer is insulated from acts committed by an employee in the course of employment if he or she can establish that all reasonable care was taken to prevent commission of the crime and that the offence was committed by an employee or agent without his or her "consent, connivance or wilful default" (Rolls, 1985).

2.2.2 FISHERIES ACT

The Fisheries Act (R.S.C. 1985, c. F-14) was originally passed in 1857; it has evolved into an act which provides for the management of fish stocks, the protection of fish habitat, and the prevention of water pollution. This important statute applies to virtually all Canadian waters and remains the strongest and most utilized piece of legislation to protect water quality (Environmental Law Centre, 1984). The regulations promulgated under the Fisheries Act serve as the central instruments enforced by Environmental Protection Service for preventing water pollution.

Prevention of water quality degradation and preservation of fish habitat are two fundamental goals of the Fisheries Act. The Act prohibits any person from depositing or permitting the deposit of

deleterious substances of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious

substance that results from the deposit of the deleterious substance may enter any such water...

(s. 36(3))

except as authorized. Interestingly, this prohibition appears to apply not only to discharges directly to water frequented by fish but could apparently extend to lands which drain to such waters. As well, this section applies to non-fish-bearing tributary waters which provide food for downstream fish stocks.

Authorized discharges to receiving waters are regulated under the Act: accidental releases of deleterious substances are also covered under the Fisheries Act since

deposit means any discharging...spilling, leaking, [or] seeping....

(s. 2)

Furthermore, the Act defines a deleterious substance as

any substance that, if added to any water, would degrade or alter...the quality of that water so that it is rendered or is likely to be rendered deleterious to fish or fish habitat or the use by man of fish that frequent that water....

(s. 34(1))

The terms of this definition are consistent with that of a waste defined under other water legislation including the Canada Water Act, the Northern Inland Waters Act, and the Yukon Water Act. Court rulings have included ammonia, bunker oil, diesel fuel, sewage, sediments, water from logging operations, and wood preservatives among the list of substances found to be deleterious (Rovet, 1988). Given the court's interpretation of a deleterious substance, there is a high probability that releases of other toxic or hazardous substances would be similarly considered.

Spills and other mishaps which result in a real or perceived danger to fish or fish habitat are treated in subsection 38(4). This subsection imposes a personal duty (subject to regulation) to report actual or impending releases of deleterious substances into water frequented by fish, where a real or potential impact upon fish, fish habitat, or use of the resource may result. This duty is extended to owners or those in charge of a deleterious substance or to any person who causes or contributes to the release. These persons are charged with the additional responsibility to react to exigent situations and either prevent the imminent deposit of a deleterious substance, or "counteract, mitigate, or remedy" the adverse impact of such a release (s. 38(5)).

Penalties administered under recent amendments to the Fisheries Act appear to have evolved with society's demand for a strong federal response to environmental violations. Subsection 40(2) stipulates the degree of punishment for the deposit of deleterious substances in waters frequented by fish (re: s. 36(3)). Contravention of subsection 36(3) is

(a) an offence punishable on summary conviction...to a fine not exceeding three hundred thousand dollars and, for any subsequent offence, to a fine not exceeding three hundred thousand dollars or to imprisonment for a term not exceeding three years, or to both....

Indictable offences call into force liability to a maximum fine of \$1 million for a first offence. The penalty administered for subsequent indictable offences is liability to a maximum fine of \$1 million or to imprisonment for a maximum period of three years or to a combination of a fine and imprisonment. For the purpose of applying this section; a deposit is said to occur "whether or not any act or omission resulting in the deposit is intentional" (s. 41(5)).

The personal and corporate duty to report impending or actual spills of substances which pose a threat to aquatic ecosystems is seriously administered under the Fisheries Act. Contravention of "other offences" are treated under subsection 40(3), and include an offence for the failure to make a report pursuant to the requirements of subsection 38(4) — report of a deposit of deleterious substances. The sentence specified under subsection 40(3) for a first offence is a fine up to \$200,000. Subsequent violations of this subsection call forth a sentence to a maximum \$200,000 fine or imprisonment for a term not exceeding six months, or both.

The Fisheries Act provides a mechanism whereby the Crown can recover expenses incurred while responding to emergencies involving a real or impending unauthorized deposit of deleterious substances to fish-bearing waters (s. 42(1), s. 42(2)). The Crown can recover expenses for responding to such emergencies from the persons who own or have the "charge, management or control" of deleterious substances, or who cause or contribute to the deposit or a danger of deposit of these substances. A person's liability with respect to this section can be tempered, however, by the presence of certain contributing events which are beyond his or her influence or control (s. 42(4)).

Fisheries Act violations which occur on or span more than one day are treated under subsection 78(1). The intent of the so-called "continuing offences" clause is compatible with the convention of other Canadian environmental legislation: this clause asserts that the federal government considers a separate offence to be commissioned for each day on which an offence under the Fisheries Act is "committed or continued."

Officers of a corporation are not insulated from remedy under the Act. Subsection 78(2) maintains recent convention by stipulating liability provisions for corporate directors. When a Fisheries offence occurs as a consequence of business endeavours, liability is extended to corporate directors, officers, and agents who

directed, authorized, assented to, acquiesced in or participated in the commission of the offence....

The due diligence defence is endorsed in subsection 78(6) with attendant conditions necessary to validate this legal tool. A person (or corporation) is absolved from responsibility under the Fisheries Act when evidence is produced to sufficiently establish that the person

- (a) exercised all due diligence to prevent the commission of the offence, or
- (b) reasonably and honestly believed in the existence of facts that, if true, would render the person's conduct innocent.

The first condition for establishing this defence — that a suitable level of care must be maintained in order to demonstrate due diligence — was not fulfilled in *R. v. MacMillan Bloedel Industries, Ltd.* ((1974) 13 C.C.C. (2d) 459). In this case, the Crown laid a charge against MacMillan Bloedel for allowing sediment-laden water to escape from a gravel washing operation into water frequented by fish. Upon reviewing evidence pertinent to the charge, the Court ruled that the defendant did not adequately communicate instructions to employees to prevent commission of the offence. The corporation was thus held liable for the offence so committed.

2.2.3 YUKON WATERS ACT

The Yukon Waters Act, presently before the House of Commons, is intended to provide legislation for water resource management in the Yukon Territory. This Act will replace the outdated Northern Inland Waters Act (NIWA) which will be repealed under section 53. Northern inland waters will continue to be managed by the federal Crown via parallel legislation administered in each of the two northern territories. There is a provision within the Yukon Waters Act, however, to transfer certain responsibilities from the Crown to the Yukon Minister responsible for water resources.

There are several provisions within this Act which are significant from a hazardous-substance spills management perspective; it provides for the protection of northern inland waters as a component of water management.

The text of the Yukon Waters Act promptly establishes that a federal concern for water quality exists. This interest, however, appears to be compromised by statutory and administrative schizophrenia: this is a result of the tenuous duality evident in the Yukon Waters Act for protection of a water resource which is sometimes used for waste management, as well as the major roles played by the sponsoring agency, the Department of Indian Affairs and Northern Development (DIAND) — an administrative body which promotes both development and protection of the water resource.

The Crown promotes water quality protection via the obligations prescribed under subsection 9(1):

Except...as authorized...no person shall...deposit or permit the deposit of waste

- (a) in any waters in a water management area; or
- (b) in any other place under conditions in which the waste, or any other waste that results from the deposit of that waste, may enter any waters in a water management area.

Though allowing for the discharge of certain regulated substances (subject to a licence granted under provisions of the Act), the intent of the text is clear: the Yukon Waters Act does not permit the deposit of any unauthorized waste substances into any waters or any place physically connected to waters in a water management area.

The Yukon Waters Act has extended the meaning of "waters" beyond the definition earlier contained under NIWA. The definition of "waters" has been amended to include water on and below the land surface in either a *liquid* or *frozen* state. This expanded meaning is emplaced to support the management role of the administering body, within the objectives of the Act, for the various forms in which "water" is present in the Yukon. The explicit inclusion of water both above and below the surface of the land in this definition confirms legal and managerial jurisdiction, and recognizes the elemental link between surface and subsurface waters, while the second section — liquid or frozen — is expansionary in nature and was incorporated for "clarification and certainty" (DIAND, 1989a).

For the purposes of this Act, "waste" has been defined in terms which are consistent with the definition of a waste under the Canada Water Act, and of a deleterious substance in the Fisheries Act. Waste is defined under section 2 as

(a) any substance that, if added to water, would degrade or alter...the quality of the water to an extent that is detrimental to its use by people or by any animal, fish or plant....

This definition also serves to complement the meaning of a deleterious substance under the Fisheries Act since a broader consideration is given to the nature of detriment. The Act is not only concerned with damages to the aquatic ecosystem which impact humans, but also extends this interest to fish, animals, and plants — regardless of their human usefulness. This heightened consciousness for other organisms — regardless of their utility — also denotes an additional change (albeit subtle) in the Yukon Waters Act from its predecessor. As well, section 33(1)(b) authorizes the Minister to rule whether a substance or a particular concentration of a substance is or is not a waste.

The explicit duty to report any unlawful deposit of waste into Yukon waters is cited in subsection 9(3). Accountability to report the deposit to an official of the administering department (i.e. DIAND) is extended to every person who owns or had "charge or control" of the waste, or to every person who caused or contributed to the unlawful deposit. The obligations imposed under this section are thus central to any requirements specified for reporting spills which may enter Yukon waters.

The nature and objective of this Act, to provide for the development and utilization of Yukon Waters for the optimal benefit of Canadians and especially Yukon

Residents, is well evidenced by the preponderance of legislative text within the Yukon Waters Act which administers water use. The Act provides for water utilization and development by prescribing both licensed and non-licensed restrictions. After a licence is granted under the Act for the purpose of water use, however, the Water Board (the administering licensing body) has a right under paragraph 18(1)(c) to cancel any water licence where the Board feels such an action is in the public's best interest.

This clause should be viewed with keen interest by any industrial operation which relies upon a water licence granted under the Act for its supply of processing water. Any contravention of the Act, such as an unlawful release of waste to Yukon waters, could seriously jeopardize continued industrial activities, since the Board could choose to suspend that organization's water licence. The cost for non-compliance resulting from an uncontrolled or accidental discharge of hazardous substances could, therefore, be exceedingly high.

The Act bestows extensive powers upon designated inspectors. Under subsection 37(1), the Crown can react to existing or emerging environmental emergencies and direct the actions of other persons. The Crown assumes these broad powers when there is belief that a waste which poses a real or potential danger to humans, property, or to the environment has been or is likely to be deposited in contravention of the Act. Under these circumstances, the Crown may direct any person to take such remedial measures deemed necessary to prevent commission of an impending infraction or to "counteract, mitigate or remedy" impact to the environment or danger to human health. Section 37

powers, therefore, provide wide-ranging abilities for the Crown to respond and direct the activities of individuals and entities in cases of emergencies (such as spills) which may impact the environment, and even allows for direct action by the inspector.

Subsection 37(4) provides for recovery of any costs incurred by the Crown in the course of actions taken by an inspector in response to an emergency. This subsection could extend to recovery of clean-up costs, including materials and labour, in situations where the Crown assists with a hazardous spill at an industrial site. The Crown's willingness to undertake a direct response in case of a dire environmental emergency is exemplified by DIAND's reaction to an April 1992 diesel fuel spill. Inspectors from the Department participated in and initially advised employees of Canamax Gold Mines in an effort to contain and mitigate the effects of a substantial spill at the Ketz River Gold Mine (Pollyck, pers. comm. 1992). Since this case is still active at the time of this writing, the complete environmental effects of the spill, as well as any further remedy imposed by the Crown, are yet unknown.

The penalties imposed for contravention of a provision of the Act encompass only three pages in text. Penalties imposed are higher than those under NIWA, thus maintaining the trend set by other — more stringent — contemporary federal environmental statutes.

Principal offences, intended to support the main objectives of the Act, are prescribed under subsection 40(1). Contravention of section 9 (deposit of waste into

waters, and/or failure to report) is deemed to be an offence under the Act and the accused is liable

on summary conviction to a fine not exceeding one hundred thousand dollars or to imprisonment for a term not exceeding one year, or to both.

(s. 40(1))

The Crown considers any offence under section 40 which is committed on more than one day or continued for a period longer than one day (often called continuing offences) to be separate offences for the purposes of sentencing (s. 40(4)).

Prosecution under the relevant sections of the Yukon Waters Act does not suspend possible civil action for an act or omission so committed; indeed, the Act advances the right of persons to pursue civil remedies independent of any actions taken or not taken by those administering the Act (s. 43(2)). Section 43 maintains the status quo, bolstering the position taken under section 32 which provides that no defence to a civil claim for loss or damage shall be inferred simply because an activity is allowed by the Act.

Finally, worth noting under the Yukon Waters Act is the absence of provisions within the text which either endorse or attempt to suspend the defence of due diligence. This serves as a departure from NIWA and is divergent with other current federal environmental and resource statutes. Regardless of inclusion in the legal text of an Act, however, this defence can still be secured as an element of common law (Douma, 1990).

2.2.4 NORTHERN INLAND WATERS ACT

Parliamentary enactment of the Yukon Waters Act and its counterpart legislation, the Northwest Territories Waters Act is expected by the third quarter of 1992. At that time, the outgoing Northern Inland Waters Act will be repealed as provided by these revisory statutes. Until Ottawa consents to this replacement legislation, however, NIWA (R.S.C. 1985, c. N-25 (1st Supp.)) continues to be the principle administrative statute guiding water management in Canada's northern territories.

The central objective of the Northern Inland Waters Act is to provide for conservation, development and utilization of northern mainland water resources in a manner that provides for the optimal benefit to Canadians, and to Northerners in particular. The stated objective may promote conservation, however MacLeod (1980) is conscious of a pro-development orientation to NIWA; observing that it was not meant to counteract damage caused by northern development. Authorities within the administering body itself confirm MacLeod's view: the Act was never intended to serve as environmental protection legislation, but rather functions to support water development and thus help drive northern economic growth (Whitley, pers. comm. 1990).

To fulfill the objectives of the Act, the Minister of Indian Affairs and Northern Development must establish a Water Board in each Territory and must provide the board with technical support. Each board has a mandate to review applications for water use and to grant licenses for particular undertakings. Among other considerations, a licence may include an express authorization to deposit certain quantities and concentrations of

waste (as defined in the Act or Regulations) into waters. When the receiving water supports fish or fish habitat, however, licensed discharge provisions may not exceed any restriction stipulated under the Fisheries Act (NIWA, s. 12(3)).

Although NIWA appears to be development or resource-use oriented, the Act serves to provide a modicum of environmental conservation by prohibiting

the deposit of waste in any waters or in any place under any conditions where the waste or any other waste that results from the deposit of the waste may enter any waters

(s. 7)

except as authorized by regulations or according to a licence. This section serves, therefore, to promote an express and material prohibition against discharging any unauthorized or unregulated "waste" into receiving waters.

For the purpose of applying NIWA, and particularly for understanding section 7, waste is defined as

(a) any substance that if added to any water, would degrade or alter or form part of a process of degradation or alteration of the quality of that water to an extent that is detrimental to its use by man or by any animal, fish or plant that is useful to man....

(s. 2)

Arguably, this definition is anthropocentric in nature: impairment to animals, fish, or plants appears to be immaterial unless these organisms, in some explicit manner, benefit humanity. Water that contains a substance that is detrimental because of quantity or quality is also considered waste if discharged. Furthermore, NIWA applies to all

territorial mainland waters and includes

waters in any river, stream, lake or other body of inland water on the surface or underground....

(s. 2)

Any person found discharging waste into water, in contravention of section 7 of the Act, is guilty of an offence and "liable on summary conviction to a fine not exceeding five thousand dollars" (s. 35(1)). Continuing offences — defined as offences which occur on more than one day or which span two or more days — are considered as separate offences "for each day on which the offence is committed or continued" (s. 35(2)).

In addition to section 35 penalties, the court may order the guilty party to refrain from committing any additional related offences or to cease any activity which may lead to similar violations (s. 37). This prohibition may be imposed by the Crown independent of any prosecution or action taken in respect to a section 35 offence (s. 40(1)). These provisions, therefore, provide the federal government with considerable power to curtail or "shut-down" activities which may result in an unauthorized deposit of a waste substance into northern inland waters.

Shut-down powers are in the realm of ultimate sanctions, provided to contend with exigent circumstances when water quality is at risk of becoming contaminated (MacLeod, 1980). The Crown's willingness to exercise such powers during an environmental emergency is exemplified by the government's swift reaction to a substantial spill of tailings and cyanide from the Cyprus Anvil Mine in 1975 (DINA, 1975). It took only

three hours for the administrating agency to acquire the local and federal approvals necessary to effect suspension of Cyprus Anvil's water licence. Within five hours of learning about the accident, the Crown had shut-down mining activities at Faro, Yukon.

Aside from the powers granted to DIAND to manage water, respond to emergencies, and prosecute violators, the Act also supports the right of individuals or the Crown to seek civil redress to resolve water resource conflicts. Though not fully detailed under subsection 40(2), civil remedies are neither suspended nor otherwise affected simply because a particular act or omission is an offence under NIWA. This subsection serves to complement a section 28 provision which accommodates the right of individuals to sue for compensation for loss or damage resulting from a water user's activities.

Finally, the Act stipulates an explicit corporate responsibility for the actions of an employee. In any prosecution for a violation of the Act

it is sufficient proof of the offence to establish that it was committed by an employee or agent of the accused...unless the accused establishes that the offence was committed without his knowledge or consent and that he exercised all due diligence to prevent its commission.

(s. 38)

The employee or agent referred to need not be identified nor charged for the violation — the Act makes an unequivocal reference to an employer as the accused. Employers must demonstrate that instructions given to employees, and existing process controls were adequate to prevent an offence from occurring. The noted provision, essentially upholding the defence of due diligence, is consistent with other federal environmental statutes such as the Canadian Environmental Protection Act and the Fisheries Act.

2.2.5 TERRITORIAL LANDS ACT

The Territorial Lands Act (R.S.C. 1985, c. T-7), a piece of federal legislation, applies to those lands in the Yukon Territory and the Northwest Territories that are vested in the Crown and which are under the "control, management and administration" of the Minister of Indian Affairs and Northern Development. Lands within the Yukon which are not affected by this Act include lands transferred to the Commissioner of the Yukon as well as lands which are managed by other federal departments — by illustration; lands within federal park boundaries which are administered by the Department of Environment, and lands reserved for mining under the Quartz Mining Act.

The Territorial Lands Act does not apply to lands upon which mining activities are managed by way of mineral claims or mineral leases under the jurisdiction of the (federal) Quartz Mining Act. The provisions contained within the Act do apply, however, to mineral exploration programs located outside mineral claim boundaries, and to most other activities involving a use of Crown land. In these situations, therefore, the direction imparted within the text of the Act and its accompanying Regulations, and particularly within a land use permit, must be observed when storing and handling hazardous substances.

The Territorial Lands Act provides the Minister of Indian Affairs and Northern Development with both an administrative and a protective function over northern Crown

lands. The Act supports the federal government's authority to

"make regulations respecting the protection...of the surface of territorial lands....
(s. 23(j))

The federal government's role as a guardian of northern land is further defined by means of legislative instruments contained within the Territorial Land Use Regulations (SOR/77-210), passed pursuant to the Territorial Lands Act. Lands which are exempted from the Territorial Land Use Regulations include lands for which the surface rights have been "disposed of" by the Minister, by way of land grant or land leases (such lands are administered under the Territorial Lands Regulations (C.R.C., c. 1525), discussed at the end of this section).

The Territorial Land Use Regulations (which is different than the Territorial Lands Regulations) prescribe the rules necessary to govern land use in the Yukon; they also have a considerable effect in controlling damage to northern lands and waters (MacLeod, 1980). The Crown's commitment to conserve the "ecological balance" of the northern territories is entrenched in the first paragraph of the preamble to the Regulations. The Regulations also encourage private citizens to take initiative during emergencies and to engage in any mitigative measures considered necessary to cope with a threat to the "natural environment" (SOR/77-210, s. 20).

Land uses having a potential to cause environmental damage are controlled proactively via a system of permits, whereby the Crown authorizes a person (or corporation) to conduct specific activities related to a land-use undertaking, subject to conditions designed to protect the environment (DIAND, 1989b). The danger to the

environment which may result from improper storage of petroleum fuel products is one of several primary concerns addressed by the Territorial Land Use Regulations. Section 8 and 9 of the Regulations prohibit a number of unlicensed activities including any undertaking on territorial land that involves establishing a bulk petroleum storage facility without appropriate permit approval (SOR/77-210).

The Regulations place specific obligations on a permit holder to safely manage fuel supplies. Restrictions are applied under subsection 10(d) such that no permittee shall,

when placing a fuel supply cache within 100m of any stream, place the fuel or supply cache below the normal high water mark of that stream

unless otherwise authorized to do so. There is also a duty placed upon persons who own small fuel caches located on non-permitted lands to notify the Crown giving details of the cache size & fuel type, storage methods, and other information (s. 11).

Additional provisions intended to reduce the risk of environmental exposure to petroleum fuels and hazardous or toxic substances may be annexed to a permit as part of the operating conditions for a particular land use. In order to protect the natural environment, the Crown may attach to any permit such terms and conditions it deems necessary respecting

(g) the use, storage, handling and ultimate disposal of any chemical or toxic material to be used in the land use operation; [and]...

(k) the establishment of petroleum fuel storage facilities....

(s. 31(1))

Despite a strict adherence to the terms and conditions attached to a permit — those additional measures implemented for protection of the environment — systems sometimes fail and can result in damage to fragile ecosystems. The Regulations stipulate that where environmental damage occurs as a consequence of an undertaking, there exists a substantive obligation on the part of the land-user to repair the injury.

A permittee is required, subject to the terms and conditions of his or her permit, to restore the permit area to a condition similar to that in which it was originally found (s. 18). This may become significant for the remediation of accidental releases of hazardous substances which cause environmental damage. There is thus a duty, as prescribed in this section and subject to the terms of a permit, to rehabilitate the lands affected by the spill and to repair damage to the environment.

Penalties administered under the Act and its accompanying Regulations include temporary suspension of an operation or subsequent permit cancellation, forfeiture of security, or prosecution. Contravention of any regulation or failure to comply with the terms and conditions of a permit are offences, as specified under section 7 of the Act. Anyone found violating this section is liable upon summary conviction to a daily fine of up to \$5,000 for each continuing day of an offence. Panarctic Oils Limited was fined \$3,000 in 1973 for allowing drilling mud to escape from a drilling site into a nearby creek (*R. v. Panarctic Oils Ltd.*, 2 CELN 168 (N.W.T. Mag. Ct., 1973)).

Depending upon the intended land use, the government may require the operator to deposit up to \$100,000 security in trust with the Crown prior to start-up. The Crown may retain all or part of the security deposit if the terms of a permit are not met (SOR/77-210, s. 36(5)). Additionally, the federal government may use any amount of forfeited monies to rehabilitate land damaged as a consequence of a land use operation (ibid., s. 36(6)).

The Regulations also provide the federal government with a mechanism to suspend a land use operation if any condition of a permit or of the Regulations are not adhered to (s. 41). If a Permittee fails to correct the default which led to suspension, the Crown may invoke section 42 provisions and cancel the permit. The Permittee is thus prohibited from conducting any operation on the lands previously permitted: the obligation to meet the terms and conditions of his or her permit or of the Regulations is retained, however, under subsection 42(2). A land-user's duty to rehabilitate lands impacted by chemical spills would thus not be affected by any permit cancellation.

Several guidelines have been drafted which complement the Territorial Land Use Regulations. These guidelines are not legally binding, but serve to outline specific practices designed to "minimize environmental damage" from various land use activities; they also serve to provide standards of conduct which may be referred to in case of conflict. The manual entitled: "Land Use Guidelines, Mineral Exploration, Yukon and Northwest Territories" (DIAND, 1983) highlights practices suited for safe fuel storage on mineral properties during exploration and the early phases of development. Another

guideline has been developed to assist the land-user with physical and revegetative reclamation of disturbed northern sites (DIAND, 1987).

The other set of regulations promulgated under the Territorial Lands Act, the Territorial Lands Regulations (C.R.C., c. 1525), was developed to provide an administrative basis for land grants or purchases, and for the leasing of territorial lands. Leases are established when the land use operator intends to conduct activities upon a parcel of territorial land for a significant period of time and wishes to reserve tenure of the land surface during this period. The government can assign leases of territorial lands for any term up to 30 years, after which the lease may be renewed at the Crown's discretion (*ibid.*, s. 10).

Larger Yukon mine operators tend to place their mineral claim holdings under a territorial lands lease (MacAlpine, pers. comm. 1992). The advantage for the mining concern in taking such an initiative is one of security: lease holders essentially enjoy many of the rights of a land-holder with the attendant ability to control the surface of the land — i.e., deny other persons access (Whitley, pers. comm. 1992). Mining companies have generally committed a large capital investment to a mineral property in order to bring it to production; thus, there is substantial utility in obtaining a lease to set aside those lands for the purpose of mining.

The lease holder acquires rights to the land surface similar to those of a land-holder, however the lessee is subject to additional surface obligations. When mineral

lands are transferred to a leasing arrangement, provisions requiring rehabilitation of the lands are generally negotiated (Whitley, pers. comm. 1992). These provisions usually require the minimum to keep the land stable, however the Crown has the liberty to require any rehabilitative measures desirable to reclaim lands "disposed of" by a lease.

Thus the federal government can attach to a lease any terms and conditions deemed necessary; in addition the Regulations prescribe the Crown's right to enter upon the lands encompassed by a lease for specific purposes (s. 12). In contrast to the Land Use Regulations discussed above however, the Territorial Lands Regulations contain no specific duties on the part of a lessee to rehabilitate lands impacted as a result of the lessee's activities. Also, there are no inspection provisions specified within the Territorial Lands Regulations (nor the Territorial Lands Act) which relate to monitoring compliance with lease conditions. The specific lease document may however provide for a modicum of environmental provisions which may, among other things, provide for the rehabilitation of lands upon termination.

2.3 LEGISLATION OF THE YUKON TERRITORY

2.3.1 ENVIRONMENT ACT

Chapter 5, the Environment Act, was enacted by the Legislative Assembly of the Yukon Territory on May 29, 1991. This wide-ranging and comprehensive statute has the potential to become the single most influential piece of environmental legislation guiding individual and corporate conduct in the Yukon.

As prescribed under subsection 3(1): the Environment Act applies throughout the Yukon, subject to the provisions contained in the (federal) Yukon Act (R.S.C. 1985, c. Y-2). The Yukon Act grants to the territorial government the authority to draft legislation in relation to

(h) property and civil rights in the Territory;... [and]

(t) generally, all matters of a merely local or private nature in the Territory...

(R.S.C. 1985, c. Y-2, s. 17)

subject to any Act of Parliament. These two classes of subjects are essentially identical in wording to classes of subjects prescribed under section 92 of the Constitution Act, 1867 (with reference to the provinces), and are considered to authorize provincial governments to make laws respecting the "regulation of land use and most aspects of mining, manufacturing and other business activity, including the regulation of contaminants that could pollute the environment" (Hogg, 1985).

The relationship between the federal and provincial governments is substantially different than that between Ottawa and the Yukon, however. Constitutionally, the Yukon can at best be viewed as a quasi-province (Huestis, 1991a; Finkelstein, 1990), enjoying

many of the privileges similar to those of a province, yet unlike the provinces, having no constitutional right to govern its territorial affairs (Cameron & Gomme, 1991). Yukon laws are generally regarded as retaining a status similar to that of municipal by-laws, for which the rules of paramountcy are strictly applied: "where there are inconsistent (or conflicting) federal and provincial/territorial laws, it is the federal law which prevails" (Hogg, 1985).

The territorial government sought legal counsel in an effort to displace jurisdictional ambiguity with respect to the legislative validity of the Environment Act, and thus the Yukon government's right to exercise the Act's many provisions. One element of the opinion so rendered considers the jurisdiction of the Environment Act with respect to undertakings on federal lands:

(iii) Territorial legislation can be applied to federal lands where:

- (a) the territorial statute relates to a valid territorial purpose, generally the regulation of property and civil rights within the Territory;
- (b) the territorial statute does not sterilize the federally regulated undertaking or interfere unduly with any of its essential activities;
- (c) *the territorial statute is directed to the activities of the user of lands, as contrasted to being directed to the use of the land;* and

(d) *there is not direct conflict between the territorial statute and any competent federal legislation.* [see also Finkelstein, 1990]

(Huestis, 1991a: italics mine)

Huestis (1991b) further expands upon this position; she advances the legal view that although the Yukon is not enabled to regulate land-use on federal lands per se, the territorial government may exercise laws of general application relating to environmental protection where there is no "express contradiction" with any prevailing federal statute. Ballantyne (1992) has cast these decisions in lay terms and synthesized the Territory's

intent by suggesting: the Environment Act applies throughout the Yukon to regulate human activities in those situations where a federal act or regulation does not exist or where an equivalency agreement has been reached with Ottawa to allow for territorial jurisdiction.

Federal authorities have reached a somewhat different judgement with respect to the Yukon's ability to legislate new areas of responsibility (subject to an Act of Parliament) and maintain that the Environment Act enjoys only a limited reach, applying only to activities occurring upon the three to four percent of the Yukon landmass known as Commissioner's lands (Simpson, pers. comm. 1991). The government of the Yukon Territory has not been granted an express authority to enact laws concerning environmental affairs.

This federal position is based upon the Territory's unique relationship with the rest of Canada and within the framework of the Canadian Constitution. In contrast to the provinces, the legislation that enables the Yukon government to exercise executive power over the territory is an Act of Parliament (Cameron & Gomme, 1991). Ottawa is prepared to use its power to supersede territorial initiatives where the federal government deems necessary — as it has during the Yukon's varied attempts to grasp provincial status.

Thus, while it can be argued that the Yukon has attained a quasi-provincial status replete with most of the attendant privileges and responsibilities granted to a province,

circumstance dictates that the constitutional status of the Yukon is substantially different than that of the provinces. Indeed, the Yukon has no constitutional authority by which it may govern its territorial affairs. As a result, ventures by the Yukon government to acquire responsibilities not presently administered by the territory nor under federal jurisdiction are subject to negotiation between the two levels of government (Cameron & Gomme, 1991).

The matter of legal jurisdiction of the Environment Act over federal lands and over activities occurring upon those lands is not settled: this much is evident from a small sampling of current legal and constitutional discussion. Since legal thought appears to differ in this matter, it has been suggested that the Yukon government may test its claim to the wide-spread applicability of the Environment Act by bringing prosecutions before the judiciary, thus attempting to validate the Yukon position via supportive rulings at common law (Eamer, pers. comm. 1992). In this light, the cautious may wish to "give to Caesar what is due Caesar," however difficult it is to determine whose face embellishes the coin. Thus, where not expressly covered by federal legislation, a prudent approach would dictate an observance of those components of the territorial legislation which appear pertinent to a person's activities within the Yukon.

This extensive piece of legislation contains elements which are analogous to the Canadian Environmental Protection Act, the Environmental Act of Ontario, and other environmental and resource statutes. The very substance of the Environment Act indicates an intent on the part of the Yukon government to acquire wide-ranging

administration for the regulation of environmental affairs within the territory — the Territory appears to be seeking a transfer of power in this area of responsibility from the federal government. This desire has been confirmed by the territorial Environmental Protection Department; a prerequisite to an overture for program transfers, however, is the drafting and passage of accompanying regulations, approval of enforcement mechanisms, and development of territorial infrastructure and capabilities (Ballantyne, pers. comm. 1992).

The transfer from the federal to the territorial government of the authority to undertake environmental programs is accommodated in the Environment Act. Paragraph 54(e) provides a mechanism whereby the territorial government may make agreements with the Government of Canada

on the equivalency of any regulatory requirement under this Act within any requirement under an Act of the Parliament of Canada....

Similarly, subsection 62(1) of the Environment Act provides for devolution of power — the transfer of administration — for any environmentally related Act of Parliament or federal regulation to the Yukon Government.

Since regulations still to be drafted pursuant to the Environment Act will serve to define the scope and jurisdictional reach of each major component — such as personal and corporate obligations — a precursory discussion of the Act will suffice at present. It will be more productive, therefore, to concentrate upon those parts of the Environment Act which are ostensibly pertinent to the scope of this study and may eventually extend

to personal and corporate duties with respect to the handling of hazardous substances, and to spill contingency situations on federal lands.

Part 6 of the Environment Act serves to integrate environmental conservation with economic decision-making during the planning stage of a development or activity. This is accomplished via a "development assessment process," whereby a prescribed development is subjected to an environmental review prior to project commencement. Depending upon the evidence gathered, the Minister of Environment may either issue a permit subject to conditions, or alternately may deny the applicant permission to proceed. The territorial government's authority in the realm of issuing permits for land use activities on federal lands, however, may be limited to imposing duties in addition to the duties and obligations dictated by the federal Crown (Huestis, 1991a).

The importance of corporate planning for emergency situations which may involve toxic or other hazardous substances is reinforced through the development approval system. Amongst other relevant information required for the assessment process, a permit applicant is required to disclose

the contingency plans...for responding to spills of contaminants, wastes, special wastes, [and] hazardous substances....

(s. 84(i))

Special wastes, generated as a result of industrial process or by the clean-up of spilled hazardous substances, are dealt with under Part 7 of the Environment Act. This part prohibits any unauthorized disposal of a special waste. Specifically, section 98

prohibits any person from accepting, collecting, consigning, transporting, or disposing special wastes

in a manner contrary to a special waste management plan...a permit or the regulations.

Two initiatives currently being pursued by the Yukon government include developing a Territory-wide special waste management plan, and constructing a facility to accommodate these wastes.

Human interaction with hazardous substances is dealt with under Part 10 of the Act. This Part is further subject to two other Yukon Statutes: the Dangerous Goods Transportation Act and the Gasoline Handling Act. Section 120 provides a general prohibition against handling any hazardous substance contrary to the Act or to a permit acquired for that purpose.

The Act stresses planning and preparedness wherever hazardous substances are being generated, used, transferred, stored, or otherwise "handled." Section 121 permits a representative of the territorial government to order any person or corporation "handling" hazardous substances to identify any associated risks, and to implement measures designed to diminish a possible release of these substances. In order to lessen the risk of a release, an environmental protection officer (the territorial representative) may order any person who owns or controls a hazardous substance to undertake risk assessment studies, prepare spill contingency plans, and design and install protective systems or structures, or carry out any other reasonable measures (s. 121).

Personal responsibility to handle hazardous substances in a way which isolates human, plant, and animal life from the detrimental effects of exposure is contained in section 122 of the Act. This section prescribes an obligation on the part of anyone "handling" hazardous substances — or even the containers from which these substances originate — to do so in a manner that

- (a) prevents the substance or container from coming in contact with or contaminating animals, plants, or human food or drink; and
- (b) prevents the substance from coming into contact with human, animal or plant life in any manner that is harmful to that life.

In its first 10 parts, the Environment Act treats spills and spill contingency in a peripheral way, as an untoward consequence of another activity or undertaking. However, Part 11 of the Act deals with the specific administration of "spills," and serves as a guide to personal and corporate obligations to report and respond to accidents involving hazardous substances or other contaminants.

In order to apply the provisions contained in Part 11, a "spill" is defined as the release of a substance

- (a) into the natural environment;
- (b) from or out of a structure, vehicle or other container; and
- (c) that is abnormal in quantity or quality in light of all the circumstances of the release; or
- (d) in excess of an amount specified in the regulations.

(s. 132)

This definition closely parallels that of a spill detailed in Ontario's comprehensive "Spill Bill" and thus serves to be consistent with other legislation. The "substance" referred to

which is released to the natural environment can be a hazardous substance, a contaminant, or special waste.

Section 133 imposes an express duty upon a person who is responsible for the control of a substance during a spill, or upon one who causes a spill, to report the incident to an environmental protection officer. There is an additional requirement to notify the owner of the substance as well as any public member who may be impacted as a result of the spill. Section 134 itemizes some of the pertinent information for a spill report, including:

- location and time of the spill;
- circumstances leading up to the spill;
- type and quantity of the spilled substance;
- actions taken at the spill site to mitigate effects;
- location of the spill relative to the surrounding area; and
- any additional related information.

Section 135 of the Act promulgates a further responsibility to respond to such exigent situations. This duty is extended to any person who owns or has possession, charge, or control of a spilled substance to

- (a) take all reasonable measures
 - (i) to confine, repair, and remedy the effects of the spill; and
 - (ii) to remove the substance spilled in such a manner as to reduce or mitigate any danger to human life, health and the natural environment; and
- (b) restore or rehabilitate the natural environment....

In addition, the Minister of Environment or his or her representative may order persons responsible for any aspect of the spill response or site rehabilitation to undertake those supplementary measures considered necessary to protect, restore, or rehabilitate the natural environment (s. 136).

Part 11 bestows upon environmental protection officers substantial power to intervene during exigent circumstances. When any person fails to adequately respond to a spill, thereby placing human health or life or the environment at risk, an environmental protection officer may assume control and undertake any measures deemed necessary to safely mitigate further danger. The officer may direct other persons to carry out certain measures intended to safely contain the spill and reduce the danger to humans and the natural environment (s. 137).

In addition, an environmental protection officer has a right to access any public place or property in order to undertake emergency measures and thus "prevent serious imminent harm to a person or the natural environment" (s. 137). Section 152 confers upon the environmental protection officer a right to access private dwellings only if the occupant consents to the access or if the officer obtains a warrant issued for that purpose.

Regulations serve to connect human activities to the duties and obligations assigned by the founding statute. The teeth of an Act — its scope, its enforceability, its connection with human activities — can often be found in regulations developed to support that statute's prescriptive obligations. Part 12 of the Environment Act outlines

the territorial government's ability to make regulations for each major part of the Act. These regulations will help to define the territorial government's specific authority to guide many facets of human interaction with the Yukon's "natural environment."

Section 146 of the Environment Act empowers the Yukon Government with specific authority to make regulations relating to hazardous substances (Part 10). The territorial government may make regulations with respect to any aspect of the use or handling of hazardous substances; this may include regulations

- (f) respecting systems,...procedures,...monitoring,...and other requirements for safe handling, storage,...and transportation of hazardous substances...; [and]
- (g) prescribing the preparation and content of a contingency plan....

(s. 146)

The territorial government's authority to create regulations with respect to spills of hazardous substances is defined under section 147 of the Act. In order to effectively administer the provisions contained under Part 11, the government may make regulations

- (a) respecting the form and content of a [spill report];
- (b) classifying spills and exempting [certain spills] from the application of Part 11...;
- (c) respecting requirements for remedial action in response to a spill;
- (d) respecting compensation to persons who suffer a loss due to a spill; and
- (e) respecting any matter...necessary to carry the purposes and provisions of Part 11 into effect.

(s. 147)

The Environment Act appears to follow the trend of other current Canadian environmental statutes (such as CEPA) by providing for stiff penalties. Offences and

penalties are administered under Part 14 of the Act and are comprehensive inasmuch as additional penalties may be stipulated in the various evolving regulations.

Anyone who fails to report the spill of a substance contravenes section 133 of the Act. This is an offence specified under paragraph 171(1)(c) which carries a maximum penalty upon summary conviction of a \$200,000 fine or 6 months imprisonment or both.

Violations of a more serious nature are dealt with under section 172, including: contravention of the requirement to mitigate the effects of a spill (s. 135); contravention of an order or direction to mitigate the effects of a spill (s. 137); and contravention of an order or direction to undertake risk assessment and protective measures (s. 121). Failure to comply with any of these provisions can result with a maximum fine of \$300,000 or up to 6 months imprisonment or a combination of both. When "subsequent violations" are involved, the maximum penalty increases to a \$1,000,000 fine or 3 years imprisonment or both. A subsequent violation occurs where the guilty party has a prior conviction (under this Act or others which are listed) "within the five-year period immediately preceding the date of the [current] conviction" (s. 174).

Section 175 creates a special offence for any person who, in contravention of the Act, impairs the "natural environment" or endangers the life or safety of others in an intentional, reckless, or wanton manner. Under these conditions, the guilty party is liable to a maximum fine of \$3,000,000 or to imprisonment for a term not to exceed 5 years, or both.

Where not otherwise provided for, any contravention of the Act or regulations is an offence which carries a liability of a maximum \$200,000 fine or maximum 6 months imprisonment or both. Other penalties the court may impose, either in addition to or in lieu of penalties otherwise rendered, include a requirement that the convicted person: refrain from causing any further adverse effect; restore or rehabilitate the "natural environment"; or make restitution to another person (s. 183). Continuing offences — administered under the Act in a fashion similar to that of other environmental statutes — are considered as separate offences for each day a violation occurs (s. 178).

Corporate liability extending to the upper echelon of the corporate ladder is treated under sections 177 and 179 of the Environment Act. Section 177 delineates an employer's liability for offences committed by an employee acting in the course of employment. An employee, in this case, need not be identified nor prosecuted in relation to the offence. Upper level corporate management who knowingly direct, authorize, assent to, acquiesce, or participate in the commission of an offence are guilty of that offence and liable to the punishment provided (s. 179). The managers implicated retain their liability for the crime so committed independent of any potential proceedings taken against the corporation.

Noticeably absent from the Environment Act is any provision which advances a right to undertake a defence based upon the concept of due diligence. There appears to be a mixed acceptance of this defence in Canadian environmental legislation: although

present in CEPA and the Fisheries Act, text describing this defence is absent in NIWA's revisionary legislation — the Yukon Waters Act — as it is here.

The burden of proof required in environmental proceedings and stipulated in the majority of Canadian legislation has been historically biased against environmental protection in favour of resource consumption (Franson et. al., 1977). This is partly due to one of the central tenets of our legal system which requires plaintiffs — generally those whose duty it is to conserve the environment — to undertake the major burden of proving the principal issues in a lawsuit (Krier, 1970). In environmental prosecutions this burden of proof has traditionally rested with the prosecutor, and the standard of proof has been proof beyond reasonable doubt.

Based upon experience in many federal Fisheries Act prosecutions, this burden of proof and the standard of proof required to secure a conviction under the Act "may be impossibly high" (Franson et. al., 1977). The Environment Act, however, strives to create a different balance for the burden and standard of proof required during litigation. This is best exemplified by the burden of proof required when a private citizen commences a court action against a polluter — the right to take action is endorsed by the Act under subsection 8(1). Where it is proven that environmental damage has occurred due to release of a contaminant such as that released by the defendant, the onus then shifts to the defendant to prove that the contaminant he or she released is not that which caused the damage in question (s. 11). Similarly, the standard of proof required to secure the prosecution's case is simplified under the Environment Act: the prosecutor need only

establish that an adverse effect has or can happen as a result of a contaminant release (Ballantyne, pers. comm. 1992).

2.3.2 GASOLINE HANDLING ACT

The Gasoline Handling Act (R.S.Y. 1986, c. 79) applies to all sites within the territory — Commissioner's lands as well as Crown lands — and is one of two territorial statutes referred to within the introductory text for Part 10 of the Environment Act (the other statute is the Transportation of Dangerous Goods Act). Part 10 of the Environment Act, which pertains to the use and control of hazardous substances, applies subject to those provisions specified under the Gasoline Handling Act — Part 10 applies where the Gasoline Handling Act does not.

Both the Gasoline Handling Act and the Gasoline Handling Regulations (C.O. 1972/137) apply to the transfer, storage, and transportation of gasoline and associated products, including gasoline, fuel oil, kerosene, and diesel fuel. The Act requires that equipment be approved (s. 2) and persons who handle gasoline during the course of employment be certified for that activity (s. 6). It is also the duty of every employer to take reasonable precautions to ensure that the Act and Regulations are complied with at the workplace (s. 7).

The Regulations serve to guide individuals who handle gasoline and associated products, while the Act provides an enforcement capability. Where there is any doubt concerning safety conditions relevant to the Act or Regulations, an inspector is

empowered to enter any premises to make observations and undertake any test required to verify compliance (s. 8(1)). The inspector may demand that certain improvements be undertaken in order to bring about compliance, and thus reduce or remove any hazardous condition related to handling gasoline and associated products (s. 8(2)).

It is an offence for any person (or employer) to contravene a provision of the Act or Regulations, to knowingly make a false statement relative to an application of the Regulations, or to fail to comply with a direction given by an inspector (s. 10). Any person found guilty of such an offence is liable to a maximum fine of \$500 or to imprisonment for a maximum term of six months or both.

The Gasoline Handling Regulations impose an obligation upon employers and other persons to comply with standards for each physical system or procedure utilized during the various stages of "handling." Although the Regulations are relatively comprehensive, they are also substantially dated, having been passed by an order in council nineteen years ago. Other jurisdictions (e.g. Manitoba) have enacted gasoline handling statutes which are more rigorous and more technically advanced than the Yukon regulations. The Yukon government is aware of the need to update the Regulations and is currently revising this statute to make it comparable to gasoline handling regulations presently applied in other Canadian (provincial) jurisdictions. During the interim, the Yukon Fire Marshal is allowing the regulations contained in the National Fire Code of Canada to supersede the outdated Yukon Regulations; thus the national code is forming the basis for decisions relevant to gasoline handling (Holesworth, pers. comm. 1992).

2.4 OTHER FEDERAL AND TERRITORIAL LEGISLATION

There are other federal and territorial statutes which are pertinent to the scope of this study, which is the personal and corporate responsibility to prevent, and to respond to spills of hazardous substances on federal Crown lands for the protection of the environment. These include the Migratory Birds Regulations, the National Fire Code of Canada, and to a lesser extent, the Transportation of Dangerous Goods Act (TDGA) and Regulations.

2.4.1 MIGRATORY BIRDS REGULATIONS

The Migratory Birds Regulations (C.R.C. 1978, c. 1035, as am. by SOR/90-425) were created pursuant to the Migratory Birds Convention Act (R.S.C. 1985, c. M-7). These regulations are administered in the Yukon by the Canadian Wildlife Service, a branch of the federal Department of Environment. The Canadian Wildlife Service has continuing jurisdiction under subsection 35(1) of the Regulations to prevent the deposit of oil, oil wastes, or other harmful substances in waters or any area frequented by migratory birds (*ibid.*). Exemptions are available where authorized by the Minister of the Environment for scientific purposes or where otherwise provided for by regulation (s. 35(2)).

2.4.2 NATIONAL FIRE CODE OF CANADA

Many of the flammable and combustible liquids utilized by contemporary society exhibit a significant potential to harm ecosystems if released into the environment.

Ecosystems which are protected from exposure are thus materially benefitted by legislation which prohibits and therefore prevents spills of these hazardous substances. Although the main focus of the National Fire Code of Canada is upon fire prevention for human safety, there exists a link between the intent of the Fire Code and the objective of environmental protection which is both causative and substantive; a result of the codification of rules which serve to safely control the use (and accidental release) of flammable and combustible liquids.

The environmental basis for this link is clearly specified in a document excerpted from the Fire Code entitled: "Sections Applicable to 'Environmental Code of Practice'" (NRC, 1985). Subsection 4.1.6 of the Environmental Code requires individuals who handle or store flammable and combustible liquids to provide

appropriate measures to prevent spills from entering...natural waterways so that the spillage will not contaminate groundwater or surface water sources. A further obligation is prescribed for exigent conditions where flammable and combustible liquids have escaped due to a spill or leak:

all reasonable steps shall be taken to recover escaped liquid and to remove or treat ... contaminated soils.

(s. 4.1.9)

The danger inherent to the environment by the accidental release of flammable and combustible liquids is well known. The Canadian Council of Resource and Environmental Ministers (1987) considers concentrations of benzene and toluene (two components of gasoline) in excess of 0.3 parts per million of water to be harmful to

aquatic life. Prevention is a key to environmental security: by providing operational and systems conventions intended to reduce the incidence of accidental releases, the Code functions to diminish the risk of environmental exposure to these hazardous substances.

The National Fire Code of Canada provides persons using, handling, and storing flammable and combustible liquids with suitable operating procedures and sound mechanical standards designed to prevent or detect leaks and spills. Preventative and detection tools detailed under the Code include leak testing methods, monitoring procedures, and engineering standards, to counteract the effect of mechanical failure or human error.

Spill containment and environmental remediation measures are also covered within the text of the Code. Specific measures devised to accommodate contingency situations include:

- training employees to correctly respond to emergencies;
- containment of spills or leaks by constructing physical barriers or drainage and collection structures;
- provision of fire protection equipment and liquid adsorbent materials in order to contain impacts and prevent further damage;
- recovery of escaped substances and removal or treatment of contaminated soils;
and
- a prescribed obligation for individuals who use, handle, or store flammable and combustible liquids to protect underground and surface waters.

2.4.3 TRANSPORTATION OF DANGEROUS GOODS ACT

The Transportation of Dangerous Goods Act (R.S.C. 1985, c. T-19) was passed by the Parliament of Canada in 1980, yet remained pragmatically impotent until the Transportation of Dangerous Goods Regulations (SOR/85-77) came into effect in July 1985 (Estrin, 1986). Although the federal Act and accompanying Regulations have not been vigorously applied to consignees of dangerous goods, they potentially apply to all stages of handling and transportation: from the point of manufacture or packaging for shipment, to the terminus where dangerous goods are unloaded for use. By contrast, the Yukon Dangerous Goods Transportation Act and Regulations are applied only while dangerous goods are under transport on a Yukon highway (Thompson, pers. comm. 1991).

Narrowly interpreted, the federal Act prescribes personal and corporate obligations which are inherently pertinent to the handling or off-loading stage at a consignee's place of business. Empirically, however, the consignee's obligations have seldom been enforced or, alternately, are rarely violated. A review of prosecutions served across Canada under federal and provincial dangerous goods legislation indicates a propensity on the part of enforcement agencies to concentrate their regulatory efforts upon consignors and carriers (Thompson, pers. comm. 1991). This finding appears to be corroborated by a low incidence of "consignee investigations" conducted by Transport Canada officials (Transport Canada, 1988).

According to Thompson (pers. comm. 1992); there are relatively few opportunities for consignees to violate the duties circumscribed by the Act — offences occurring at the

delivery point are largely due to a carrier's transgressions. Therefore, this apparent bias in enforcement merely reflects the expenditure of energy to optimally manage perceptible risks. Regardless of the Crown's enforcement intentions, the legislation remains enforceable to the fullest extent available to the Crown.

Penalties which may be imposed for any contravention of the federal Act or Regulations include fines (a maximum \$50,000 fine for a first offence, \$100,000 for subsequent offences), possible imprisonment for up to two years, or a combination of a fine and imprisonment (s. 6(1)). Additionally, the federal Act provides for new forms of civil liability which extend to certain individuals and occur under specific circumstances (Estrin, 1986): section 18 empowers the federal government to recover any expenses incurred to remedy an accident or other emergency situation; the Crown may also seize property used in the commission of an offence (*ibid.*, s. 15).

The major objective of the Act is to promote public safety in the movement of dangerous goods (Transport Canada, 1990). To the extent by which this objective is attained, the Act serves to protect people, property, and the environment by outlining measures designed to prevent the escape or spill of dangerous goods during transport. In order to achieve its primary goal, the Act prescribes comprehensive duties on a broad range of the working populace to properly classify, label, package, and register and document dangerous goods, as well as to train workers, report unusual events, and take emergency and remedial measures (Estrin, 1986; Thompson, pers. comm. 1991).

Businesses which receive dangerous goods at their work-site assume a lesser role under the prescriptive guidance of the Act. A consignee's obligations under the Act and accompanying Regulations are non-intrusive and not complex: several of these duties are shared with the carrier during transfer of the dangerous goods at the consignee's facilities. Specific duties pertinent to the consignee include:

- training and certification requirements for all employees who handle dangerous goods;
- reporting dangerous occurrences and notifying authorities if consignments of certain classified goods (e.g. infectious substances) are missing; and
- a possible requirement (if importing dangerous goods) to register with the TDG Directorate, to file agent details with the Minister of Transport, and to develop an emergency response assistance plan for some shipments originating outside Canada (Transport Canada, 1990).

This study, with its concentration on activities and incidents on Crown land, assumes that dangerous goods arrive "safe at gate." Because the transport phase is clearly under territorial jurisdiction — highways are under the direct control and administration of the Commissioner of the Yukon — transportation concerns fall outside the scope of this study. Consignee responsibilities, although limited, do fall within the boundaries of this study and thus have been presented above. Due to the federal government's apparent lack of concern for consignee situations, and based upon the perceived low risk involved, further discussion will be peripheral at best.

2.5 YUKON FIRST NATION LAND CLAIMS

Territorial, provincial, and federal governments are presently negotiating with Canadian Indigenous groups to settle claims defining aboriginal lands and to establish systems by which aboriginal people can attain a comfortable level of independence through self-government. It may be argued that the current settlement process, aimed at achieving a comprehensive land-claim agreement, is a continuation of a process which has been evolving for over two centuries (Task Force, 1985). In the Yukon, the most recent negotiated tripartite agreement concerns a Draft Model for Self-Government (Federal Land Claims Dir., 1991). An earlier settlement entitled: Comprehensive Land Claim Umbrella Final Agreement (UFA) between the Government of Canada, The Council for Yukon Indians and the Government of the Yukon was co-signed by representatives of each party on March 31, 1990 (Federal Land Claims Dir., 1990).

Self-government agreements serve to recognize the unique relationship aboriginal people have with the land and their need for jurisdiction over land and resources. This tie to the land and need to manage land and resources are recognized as two central elements required to sustain "aboriginal societies as distinct, self-sufficient, social orders within Canada" (Task Force, 1985). By allowing for increased local control over resources, however, Native self-government brings about added challenges to resource management and environmental protection as each agreement results in separate "constitutionally entrenched environmental protection and resource management regimes" (Hazell, 1990).

Responsibilities being negotiated under self-government agreements in the Yukon are similar to those presently being enjoyed by municipal and provincial levels of government in Canada (Yukon Land Claims Sec., 1991). The Yukon First Nation is granted municipal- or provincial-type law making powers under subsection 14.3 of the Model Self-Government Agreement; these powers extend to the jurisdictional authority to create laws in relation to the First Nation's desire to manage resources and protect the environment. In detail, First Nations are granted the authority to enact laws of a local or private nature on Settlement Lands with respect to

- (a) use, management, administration, control and protection of Settlement Land;...
 - (c) the use, management, administration and protection of natural resources under the ownership, control or jurisdiction of the First Nation;...[and]
 - (t) control or prevention of pollution and protection of the environment....
- (MSGGA, s. 14.3)

Thus a First Nation may enact laws applying to Settlement Lands which relate to various aspects of resource management and environmental protection. Industries (such as mines) which may wish to establish an operation on Settlement Lands would, by necessity, have to observe those duties specified under First Nation Law respecting the protection of the environment from industrial mishaps.

Chapter 14 of the Umbrella Final Agreement deals extensively with the management of water resources situated in and around Settlement Lands. In general, a First Nation has a right to have water in and around Settlement Land remain substantially unchanged in quality. In spite of a Yukon First Nation's ownership of the various waterbodies, government retains a right to manage and protect water and beds of

waterbodies throughout the Yukon for

14.6.1.1 management, protection and research in respect of Fish and Wildlife and their habitats;... [and]

14.6.1.3 protection of water supplies from contamination and degradation....

(UFA, s. 14.6.1)

Thus, the federal and territorial governments are destined to play a central role in the protection of water resources on Settlement Lands. This role will include various aspects of environmental protection and may extend to those necessary initiatives with respect to spill prevention and response, in order to diminish the risk of damage to aquatic communities.

Federal statutes such as the Northern Inland Waters Act (or its replacement legislation, the Yukon Waters Act), the Fisheries Act, and the Canadian Environmental Protection Act will continue to apply to Settlement Lands (MSGAs, s. 8.12). Any provision contained in federal legislation regarding hazardous substances — handling, use, unlawful releases, spills — will apply to Settlement Lands, subject to an agreement with the federal government to transfer responsibilities to the First Nation.

The net effect of the Umbrella Final Agreement and the Model Self-government Agreement is to transfer control to local indigenous councils or governments, thus allowing Aboriginal Canadians the opportunity to effectively manage resources on Settlement Lands. While allowing for First Nation governments to enact laws of a local nature to protect the environment and control local resources, a strong federal presence is certified in the area of environmental protection. First Nation Self-government thus serves to balance a recognition of Yukon aboriginal peoples' special relationship with the

land, with the infrastructure and capabilities possessed by the federal government to manage resources and protect the environment.

CHAPTER 3 - ADMINISTRATIVE FRAMEWORK

3.1 - CHAPTER 3 INTRODUCTION

In this chapter we will examine the Yukon's administrative structures as they pertain to spill prevention, and the response, remediation, and prosecution structures which come into play after an actual spill. The information which follows comes primarily from interviews with key administrative individuals, including lead government responders, within the federal and territorial governments. Administrators from the following agencies and departments were contacted and interviewed to determine the scope of each agency's responsibilities as well as their capability to perform mandated duties:

- Water Resources; Department of Indian and Northern Affairs
- Land Use; Department of Indian and Northern Affairs
- Environmental Protection Services; Environment Canada
- Department of Fisheries and Oceans
- Justice Canada
- Environmental Protection; Yukon Territorial Government
- Fire Marshal's Office; YTG Public Safety Branch
- Emergency Measures Organization; YTG Public Safety Branch
- Transportation of Dangerous Goods Directorship; YTG Community & Transportation Services.

(See end note listing for persons interviewed)

It appears that the federal response to spills which occur or which are likely to occur on federal Crown Lands in the Yukon is reactive in nature rather than proactive or preventative. Federal agencies and departments in the Yukon appear to await an actual or imminent spill of a hazardous substance before responding with the requirement that the "polluter" correct his or her actions and mitigate damage to the environment. Initially, federal agencies take a relatively passive role during exigent situations, generally soliciting a plan of action from the responsible party outlining how that party will deal with the spill. Only upon determination that mitigation is being inadequately addressed will the federal government assemble spill control and remediation expertise, with the intent of recovering expenses from those responsible at a later date.

The other governmental authority, the Yukon Territorial Government presently plays a relatively minor role with respect to spills occurring on federal Crown land. The Yukon government does have a statutory right under the (Yukon) Gasoline Handling Act to undertake a proactive role through the enforcement of measures and codes designed to prevent or control spills of gasoline and associated petroleum products.

As discussed in Chapter 2, the newly passed (Yukon) Environment Act may result in greater influence by the territorial government in the areas of spill prevention, response, and mitigation. This influence could possibly be applied to those activities occurring on (federal) Crown Lands which are not otherwise regulated by federal statute.

3.2 - THE GENERAL MECHANICS OF RESPONSE

The Environmental Protection Service, a department of Environment Canada, has taken a leadership role in the Yukon by developing an administrative and co-ordinative mechanism which facilitates governmental responses to hazardous or toxic substance spills. This role includes the operation of the Yukon 24 Hour Spill Line. Lead federal and territorial agencies have agreed upon an organizational structure for response, as detailed in a "Letter of Understanding for Government Response to Spills in the Yukon Territory" (EPS, rev. 1988-05-20). This "Letter of Understanding" provides for the delegation of administrative authority for spill response to those lead agencies responsible through legislative jurisdiction. Table 1 summarizes the jurisdiction of each agency, and indicates which would respond as lead government agency to different types of spills occurring on Crown Land.

TABLE 1

LEAD AGENCY DESIGNATION FOR SPILL RESPONSE

<u>TYPE OF SPILL</u>	<u>LEAD AGENCY</u>
1. Spills from an operation licenced to use water under the Northern Inland Waters Act.	Water Resources - DIAND
2. All spills in areas operating under Land Use Permits as per Territorial Lands Act.	Land Use - DIAND
3. Spills from bulk fuel storage facilities and service stations.	YTG Protective Services
4. Spills involving road shipments of hazardous wastes.	Environmental Protection
5. Spills from federal facilities.	Environmental Protection
6. Spills on unregulated federal lands.	Environmental Protection
7. Spills into water from operations not subject to a licence or permit.	
- Oil and chemicals as per (s. 33.(2))* Fisheries Act.	Environmental Protection
- Habitat destruction including suspended solids as per (s. 31.(1))* Fisheries Act.	Fisheries and Oceans

(after EPS, 1988)

* - The Fisheries Act has been amended since this reference and Environmental Protection now has responsibility for section 36 pollution provisions. Habitat destruction now falls under section 35. The original reference is retained as listed in EPS, 1988.

The purpose of the "Letter of Understanding" is twofold: the adopted mechanism for responding to spills ensures that the government agency with the appropriate legal jurisdiction responds to a spill. Secondly, the signatory agencies have agreed to a common pattern of governmental response. Provided the delegated lead agency performs those duties required of it by legislation and in accordance with the "Letter of Understanding," Environmental Protection will not interfere with its response. Environmental Protection reserves a right, however, to assume the lead role and respond to spills where the appropriate agency fails in its mandate.

One initial advantage of the multi-agency agreement for spill response is that a single point contact is provided on a 24 hour basis to notify all levels of government of a spill. Environmental Protection, through the Yukon spill reporting line, requests initial information specific to the nature and cause of the spill. It then notifies the government agency which has the jurisdictional responsibility for taking the lead role. This "lead agency" then must contact the persons responsible for the spill, and conduct further investigations. Other agencies with a need to know about the spill and its subsequent developments are also informed by this lead agency as events unfold. In keeping with this "one window" approach, all media or public enquiries are similarly funnelled through the lead agency.

The lead agency is responsible (as mandated by legislation and by the "Letter of Understanding") to conduct initial investigations and to manage events related to the reported spill. If necessary, evidence is collected to support possible legal action. The

lead agency is also required to ensure that the containment and rehabilitative measures taken by those responsible are adequate.

There are several provisions contained within the "Letter of Understanding" which are general in scope and which were designed to effectively manage government's response to exigent situations. Signatory agencies are bound by the agreement to share resources and personnel as required by the lead agency. When expertise, personnel, or other support is required to adequately manage a spill situation, the lead agency has a duty (and indeed a right) to request necessary assistance from other government agencies or departments. As well, inspections involving more than one agency may proceed, provided the lead agency undertakes a co-ordinative role and remains as the prime contact between government and those responsible for the spill. And finally, regular updates to the 24 Hour Spill Line, as well as the issuance of a final report for circulation among all signatory departments are two additional responsibilities the lead agency must assume.

In no way does the "Letter of Understanding" prejudice the legal mandate of the co-signatory agencies. If prosecution is contemplated and there exists a choice of legislation by which government may proceed, the agencies with legislative mandates may, by consultation, decide upon a preferred legislative action. This ensures government co-ordination for litigation (EPS, 1988).

3.3 THE AGENCIES

3.3.1 ENVIRONMENTAL PROTECTION SERVICE, ENVIRONMENT CANADA

In November 1973, the federal cabinet issued a directive to Environment Canada to assume a leadership role for environmental emergencies in Canada. In order to enhance the government's response to environmental hazards and emergencies, Parliament entrusted Environment Canada with many responsibilities. They have been directed to:

- act as an interagency facilitator in developing government-wide programming to deal with environmental emergencies;
- provide leadership and guidance in the development and integration of contingency planning, reporting, and response systems;
- provide technical advice for contingency planning and for on-scene operations to other governmental and non-governmental agencies;
- assume operational leadership for emergencies which are not otherwise assigned, or in specific situations where mitigation of environmental damage appears inadequate;
- implement a national emergency reporting and response coordination system;
- evaluate preventative techniques and improve the preventative capability of field operators; and
- develop mechanisms for recovering expenses incurred in the course of responding to environmental emergencies (after Parliament of Canada, 1973).

In addition to prescribing a leadership role for Environment Canada in the management of environmental emergencies, Parliament also specified that the agency

undertake a consultative approach with other government agencies and departments, with provinces and territories, and with industry in order to implement a strengthened national capability to prevent and respond to emergency situations which may impact the environment.

Nationally, the November 1973 Cabinet Directive served as a stimulus for Environment Canada to move proactively to prevent and control emergencies which pose a risk to the environment. The national agency's analysis of spill occurrences culminated in the realization that both the greatest risk, and the highest number of spills in Canada are due to transportation. This finding served as the impetus by which legislation covering the Transportation of Dangerous Goods (TDGA) was passed. This legislation may be responsible for the single greatest decrease in spill occurrences in Canada (Allan, pers. comm. 1992b).

At a local level, Environmental Protection Service (EPS, a department within Environment Canada) assumes a role which is solely reactive. Due to weaknesses in present legislative tools and inadequate staffing resources, the department is unable to operate on a proactive level in the Yukon.

Environmental Protection Service's response to spills is organized according to several pieces of legislation. This include the Canadian Environmental Protection Act, the Fisheries Act, and the Department of the Environment Act. EPS assumes a lead agency role for spills involving road transport of hazardous wastes (CEPA), spills from

federal facilities (CEPA), spills occurring on unregulated federal lands (CEPA, DEA), and oil and chemical spills into waters not otherwise subject to a licence or permit (Fisheries Act, s. 36). Additionally, EPS takes a leadership position in the Yukon by maintaining the 24 Hour Spill Report Line (as mentioned), co-ordinating lead agency response amongst government agencies, monitoring government response effectiveness, and keeping a spill record database.

Legislation available to guide Environmental Protection Service during exigent environmental situations is primarily reactive. Thus the Yukon agency primarily assumes an administrative function which involves monitoring the adequacy of spill cleanup efforts, but does not extend to prevention. Spill prevention is perceived as a complex field, beyond the skill and competence levels of local officials. As well, there is a local perception that government should not burden industry with technical codes and requirements but should rather "focus on broader environmental issues" — the mechanics of prevention are less important than the results.

CEPA does mandate Environment Canada to assume a preventative role by allowing the agency to develop environmental codes of practice for safe life-cycle management of hazardous and toxic substances. This is one strength of CEPA legislation which EPS should be able to use advantageously for spill prevention. Unfortunately, the time frame for developing environmental codes of practice is significant. And in reality, Environment Canada is concentrating its energies and resources upon developing

regulations for the few toxic chemicals listed in Schedule I of CEPA, and upon assessing chemicals listed in the Priority Substances List.

A similar weakness exists with CEPA's spill reporting and response requirements: they presently extend only to regulated toxic substances. The existence of non-regulated but potentially harmful substances leaves a gap in spill reporting obligations which some feel compromises the public good.

Due to the present structural regulatory weakness in CEPA, Environmental Protection Services relies to a significant extent upon those duties and obligations contained within the Fisheries Act for guiding the agency's response to spills of "deleterious substances." The Fisheries Act is the more flexible and more frequently used piece of environmental legislation: there is a duty for persons to prevent or report spills where there is an impact or possible impact to fish, fish habitat, or "man's use" of fish. This statute grants the agency greater latitude to respond to spills into fish-bearing waters.

From the agency's perspective, there remain significant gaps in spill reporting requirements for the various statutes EPS is mandated to enforce. Most problematic is the lack of a clear understanding of the minimum amounts of different substances which must be spilled before a report must be made to the spill line. Spill reporting requirements are well defined for the transport of hazardous materials under TDGA legislation (ie. Table I, pursuant to s. 9.13 of the federal TDG Regulations, prescribes a minimum reporting standard). However, similar provisions are poorly defined for

hazardous or toxic substances released during storage or manufacture: this can serve as a source of confusion for industry attempting to follow relevant spill legislation. Environment Canada may need to exercise its leadership role by clearly defining what constitutes a spill. Presently, however, proposed spill reporting regulations drafted pursuant to CEPA are on hold.

Another shortcoming in local spill management capabilities, as delineated by Environment Canada, is linked intrinsically to northern infrastructure. The North's access to technology and equipment is poor. Spills occurring in the Yukon are still mitigated with pick and shovel and adsorbents — even access to basic incineration for contaminated fuels is lacking.

The members of the agency do receive spill response training. As well, EPS has both the training programs and the policies to effectively guide the department's enforcement efforts.

During exigent situations where EPS is designated as the lead government agency for spill response, the agency's first priority is to ensure that public health and the environment are protected by an appropriate reaction from persons responsible for the spill. If mitigative measures do not provide for environmental security, the agency may employ contracting specialists to perform spill cleanup duties, later they will seek redress to cover expenses from the responsible party. EPS is further obliged to investigate the

cause of the spill and to monitor environmental impacts. Should a violation be involved, the agency may pursue prosecution of the responsible party.

A decision to proceed with prosecution of a violation related to a spill event depends upon a balance of factors. A court brief may take up to four months to prepare and requires some legal expertise; therefore the agency applies a number of "filters" prior to deciding whether a case merits referral to the Crown Attorney for prosecution. Factors which the agency evaluates to aid with this determination include

- . Charter of Rights guidance;
- . research into relevant case law;
- . recent history of similar spills;
- . evidence of due diligence;
- . a person's or a company's compliance record; and
- . departmental personnel availability and time restrictions.

If the agency ascertains that a strong case can be developed and conviction is probable, a court brief is prepared and the case is referred to the Crown Prosecutor. If the possibility of securing a conviction is low, EPS may choose to pursue other instruments at the agency's avail to enhance future compliance. These may take the form of warning letters, directions, or recommendations (for example: recommending a company perform an environmental audit).

Court proceedings brought before the judiciary in the Yukon under the Fisheries Act should follow a simple progression with a single requirement: proof that a deleterious substance was deposited into waters frequented by fish. EPS appears frustrated, however, by a particular bias within the Yukon judiciary. In order to secure a sentence in local courts, the agency is being asked to prove that public harm was done because of the accused's actions. In the agency's experience, Yukon judges generally do not fine the accused for violations which are not accompanied by evidence of dead fish. The deterrence effect is substantially reduced in an environment where there is a relative absence of punishment for unlawful deposits of deleterious substances; consequently, there is less desire by the administering agency to even attempt to enforce "the letter of the law."

A system is being contemplated which would allow EPS to deal with minor offences in a manner similar to that presently used by Worker's Compensation Boards. Environmental Protection Services would like to have statutory provisions in place which would allow for certain minor offences to be handled as administrative or "ticketable" offences, so called because they would be handled administratively, in the office or the field, rather than in the courts. This would streamline the agency's ability to deal with minor violations. Environment Canada's ability to develop an administrative system for treating such offences is presently under review by the federal government. Provisions of this nature under CEPA are currently in legislative suspension while Ottawa decides whether the statute can accommodate ticketable offences (Allan, pers. comm. 1992b).

3.3.2 WATER RESOURCES DIVISION, DIAND

Hazardous and toxic substances released from an operation licenced for water use under the Northern Inland Waters Act (NIWA) fall within the response jurisdiction of the Water Resources Division, a group working under the Northern Affairs Program of DIAND. Water licenses generally contain a condition requiring operators to report spills to the Yukon spill line. The Yukon Waters Act — soon to replace NIWA — prescribes an express duty to report any unlawful or non-regulated deposit of waste into Yukon waters.

The Water Resources Division reacts to spill situations in a manner which is similar to other federal agencies; consistency is maintained through adherence to the interagency spill response agreement ("Letter of Understanding"). The agency relies upon the operator to respond with appropriate measures designed to mitigate environmental damage. Water Resources may call upon other local agencies or may employ southern expertise if the spill cannot be controlled and remediated at a local level.

A major component of the agency's spill management responsibility consists of monitoring events related to the emergency to assure adequate environmental protection. Although DIAND maintains a modest spill cleanup kit, employees have been directed not to make the kit available to those outside government, thus reinforcing the federal position that spill contingency and preparedness is the responsibility of those who occupy and use Crown land.

The specific circumstances leading up to the spill, the nature and toxicity of the spilled material, and the potential impact upon the environment are all factors which are considered before the Water Resources Division decides to take legal water samples as evidence for possible prosecution. When a charge is being contemplated, the agency conducts a full investigation prior to consulting the Crown Attorney. The Crown Attorney may then take the case which has been presented directly to the court system, or may request additional evidence before prosecution is contemplated. Alternately, the case may be rejected in its entirety.

On average, the Water Resources Division responds to fourteen or fifteen spills in a given year. Of the seven or eight prosecutions served under NIWA in the Yukon, there has been little if any action taken against water licensees for violations involving spilled substances since 1980. This may be contrasted with DIAND's record in the Northwest Territories; there they appear to consistently and aggressively undertake prosecutions of operators who spill toxic substances into northern waters (see Lajoie, 1992).

There are two weaknesses in program delivery which are readily identified by field inspectors within the Water Resources Division. Firstly, there is a lack of direction from key senior managers regarding the role and importance of enforcement of NIWA. Essentially, there is no specific written policy to effect enforcement by Northern Affairs in the Yukon — some managers working under NIWA's mandate believe the Act is unenforceable as presently administered. Secondly, although the impending Yukon

Waters Act provides for "stop work orders," thus strengthening the agency's position to react to environmental emergencies, some individuals within the Division suggest that the Act requires a high standard of "proof" that a danger exists before an inspector can intervene in a licenced operation (see also Can. Bar Assoc., 1992). As well, inspectors had hoped that the Act would provide environmental code-making abilities similar to those in CEPA.

3.3.3 LAND USE BRANCH, LAND RESOURCES DIVISION, DIAND

The Land Use Branch, an agency under the Land Resources Division of the Department of Indian Affairs and Northern Development is responsible to act as the lead agency for all spills occurring on operational areas regulated under a land use permit. Despite being a co-signator of the "Letter of Understanding," the agency maintains a low response profile, preferring that other agencies with a stronger spill mandate take a lead role.

A general view held by the Land Use Branch is that the risk of spills causing environmental damage to northern permit and lease lands is relatively low. As a result, the agency places a greater emphasis upon administering preventative measures and conducting routine inspections to ensure compliance with the terms and conditions of a permit or lease. Directives given by inspectors would reinforce permit or lease conditions; these generally include requirements that operators implement spill control measures, and remediate the environmental effect of substances which spill upon the ground.

The Land Use Branch's proactive role is evident during the development of those attendant terms or conditions which are attached to a land use permit or a lease. The agency may demand that lease or permit holders develop spill contingency plans, and assess their own capacity to respond as planned. Additionally, the site-specific nature of the permitting process allows the Land Use Engineer to design those mitigative measures considered necessary to prevent or suitably control environmental damage which would result from spill events. For example, as a general practice for designing fuel storage facilities, current leases and permits may carry a condition that tank farms be bermed and lined with an impermeable barrier.

Inspections may also serve to reduce the risk of spills, thus enhancing the proactive or preventative function of the agency. The Land Use Branch is the only agency operating under the Northern Affairs Program in the Yukon which maintains staffed regional offices. Resource Management Officers are in the field performing their duties under the guidance of the Territorial Lands Act and Land Use Regulations (and to a much lesser extent the Territorial Lands Regulations). An inspection regime is theoretically established for each permit or lease — the frequency of inspections depends upon the type of land use activity, the speed by which events unfold, and an informal assessment of associated risks. New operators generally require a "higher level of education" and consequently more inspections.

Inspections serve to highlight deficiencies in the operator's use of land which must then be corrected. Any contamination of soils by spilled substances would also be

addressed during the inspection — this removes some of the "surprise" which occurs at project abandonment or permit cancellation when lands are discovered to be contaminated with hazardous or toxic substances.

The Land Use Branch appears as reluctant to aggressively pursue prosecution for violations involving spilled substances as it is to initially respond to exigent spill situations. Land Use has no enforcement policy to guide Resource Management Officers in the performance of their mandated duties, and officers receive no formal enforcement training. Since the Territorial Lands Regulations do not provide for officers or inspectors, or offer enforcement provisions, the regional RMO's are disinclined to perform inspections of lands held in lease or to offer any direction to a lessee.

The Land Use Branch operates with the attitude that violations involving hazardous and toxic substances should be assigned to another federal department (such as EPS) which is legislatively "better equipped" to enforce cleanup measures. Where violations have occurred which may also be indictable under the Fisheries Act or NIWA, the agency will refer the offence and lead investigative role to EPS or Water Resources, since case law available under their respective legislation is well established.

3.3.4 DEPARTMENT OF FISHERIES AND OCEANS

Because in the past these two agencies both operated under the same minister, the Department of Fisheries and Oceans (DFO) has made a regional working arrangement with Environment Canada that Environmental Protection Services accept the lead agency

role in responding to oil and chemical spills into Yukon fish-bearing waters. DFO retains the option, however, to respond to oil and chemical spills in order to investigate reported fish kills, or if requested to assist the lead agency. If EPS is the only responder, they are bound by agreement to brief DFO on the environmental aspects of a spill.

As agreed upon through the interagency agreement on spill response, the Department of Fisheries and Oceans continues to be the lead agency responding to spills which result in habitat destruction and, more commonly, spills of suspended solids which prove deleterious to fish and fish habitat. Some within the department have also embraced a controversial and unofficial role as interdepartmental watchdog. If a spill is reported on the Yukon Spill Line which may impact fish, the Department of Fisheries and Oceans monitors the responding agency's activities to ensure that downstream fishery resources are not disregarded during investigations. If, for example, DIAND or EPS does not consider potential fishery impacts during a spill investigation, then DFO can initiate court proceedings against investigating officials.

The Fisheries Act is a strong piece of legislation; the national case history of its application has shown it to be valuable in equipping the DFO to actively respond to releases of hazardous and toxic substances into fish-bearing waters. Locally, however, the Department of Fisheries and Oceans takes a position that, despite access to good enforcement training programs, and the guidance of a well documented regional enforcement policy, the department perceives that it is not adequately equipped to fulfill the mandate of the Fisheries Act. Specifically, the department is short staffed, and

operates without sufficient technical expertise in the area of chemical impacts upon aquatic communities — a weakness DFO considers serious despite technical support by EPS.

These deficiencies in technical skill, and especially in staffing availability result in response and enforcement limitations within the department. Consequently, less serious matters are not generally treated or investigated. Thus, in responding to spills and similar environmental emergencies the department places a higher priority upon events with larger potential impacts, in those areas of the Yukon where streams and rivers are easily accessible, and consequently highly visible to the territory's citizens.

3.3.5 FIRE MARSHAL'S OFFICE, YTG PUBLIC SAFETY BRANCH

The Fire Marshal's Office operates under the Public Safety Branch of the Yukon Territorial Government. The Fire Marshal is empowered under the (Yukon) Gasoline Handling Act and the (Yukon) Fire Prevention Act to inspect any facility in the Territory where fuel is stored in bulk quantities. One notable exception exists — federal properties are exempted from these statutes. This legislation and these inspection powers do, however, apply to all minesites and other operations on (federal) Crown land. Public Safety Branch is the designated lead agency for responding to spills from fuel storage facilities (as well as service stations) within the Yukon.

Prevention of spills and other environmental emergencies is central to the role assumed by the Fire Marshal's Office. Key pieces of legislation such as the Gasoline

Handling Act, and the Environmental Code of Practice (which consists of excerpts from the National Fire Code pertaining to environmental security) outline systems and procedures developed to prevent the accidental release of flammable and combustible liquids. By enforcing these statutes, and by requiring strict adherence to the relevant codes, the Fire Marshal's Office acts in a proactive fashion to enhance spill prevention capabilities within the Yukon.

Public Safety has adopted the environmental provisions of the National Fire Code because the Yukon Gasoline Handling Regulations are significantly outdated. Working within the Yukon regulations had become quite complex: applying and adjusting the regulations to changing national standards and practices had resulted in the agency adopting a "policy to not follow policies" where Yukon standards were obviously antiquated.

A new set of regulations are scheduled for development to accompany the Gasoline Handling Act. The proposed regulations are expected to take a form very similar to the Environmental Code of Practice derived from the National Fire Code of Canada. Public Safety anticipates the newly codified regulations will receive legislative consent by late 1993, after which operators will be given a short period of time to implement new measures, and to upgrade fuel storage and transfer facilities to the new standards. The improved regulations are expected to be very stringent in regard to the prevention of spills and the control of flammable and combustible liquids. Thus the Fire Marshal's Office may undertake an enhanced proactive role through its enforcement.

The agency's capacity to effectively prevent, and respond to spills of flammable and combustible liquids is hindered by what is described as a strain: too few people and resources to adequately cover a large geographic area. In an all-too-familiar pattern, there are apparently too few inspectors to systematically cover the Territory. (Actually, there is only one employee who performs regular inspections; he divides his time between inspecting gasoline storage installations, and inspecting buildings for fire code violations).

Because of its personnel shortage, the agency concentrates its resources upon monitoring higher risk installations, such as bulk fuel dealers and suppliers, to ensure that minimum yearly inspections occur at these sites. Consequently, other bulk fuel storage sites considered as a lower risk by the agency may be overlooked. The agency may be considered remiss in not providing a regular proactive inspection regime: the last time an inspector reviewed fuel storage facilities at one major Yukon minesite was over three years ago. Some of the fuel storage installations completed at this site in the past three years have never had an "as built" inspection.

The Fire Marshal's Office has also had to make arrangements with other territorial (and sometimes federal) departments for assuming the agency's lead response role during spills. This is because the Office is often capable of responding only within the Whitehorse area as the lead agency for spills at fuel storage sites. Through an informal arrangement, the Department of Highways may take the lead role in investigating spills from storage facilities in hinterlands and outlying communities.

3.3.6 JUSTICE CANADA

After a formal review of the causes of a spill, and an investigation into its possible impact to the environment, prosecution may be considered. The federal department conducting the investigation is responsible for providing case particulars and details of collected evidence to the Crown Attorney for review. The Crown Attorney will consult with the investigating department, and alternate departments if a choice of legislation is available, to determine whether a case has sufficient strength to support litigation.

The decision to progress with court proceedings is thus based upon a balance of factors which include

- a determination of the strength of available evidence;
- a review of any previous warnings or convictions for similar offences;
- the effect of the discharge, and more importantly the amount, type, and severity of harm; and
- an assessment of possible defenses which may be raised during a trial.

Yukon courts appear more sensitive to the type and extent of actual harm resulting from a violation, rather than the fact of the violation itself. This factor, therefore, creates additional work for the investigating department, as it must collect a great deal of pertinent evidence to fully develop a case. Consequently, as federal departments are presently working with limited staff and resources, a requirement to expend considerable energy to secure a violation may significantly influence the decision whether to proceed

with prosecution, or pursue alternative actions. The investigating department may instead prefer to issue a warning for (usually minor) violations.

There is relatively little recent case law available with regard to court actions in the Yukon involving spills of hazardous and toxic substances occurring on Crown land. The strongest (and most often used) pieces of legislation are the Fisheries Act and the Northern Inland Waters Act. Generally, one of these two statutes (usually the Fisheries Act) is chosen when court proceedings are being considered.

A growing trend within the local judicial system is to treat the Northern Inland Waters Act less as a piece of environmental legislation and more as a form of protection for downstream users of water. (This is especially the case with infractions which occur in the placer mining industry). The Fisheries Act has retained an environmental status; however there is an increasing tendency in the Yukon judiciary to consider harm done to *humankind* from impacted fisheries as the primary factor to consider during sentencing.

Federal courts presiding over the MacMillan Bloedel case in British Columbia ruled that the most important aspect of the trial to be considered was the offence itself (i.e., deposit of a deleterious substance to water frequented by fish) irrespective of real harm to the local fishery. Courts in the Yukon, however, are applying the provisions contained within the Fisheries Act in a manner similar to that applied during criminal matters: Yukon courts appear to convict and sentence primarily on the evidence of real harm.

The Yukon judicial system places a greater emphasis upon harm which may occur to fish resources which sustain white and native communities. As well, there is an additional prejudice by the local judiciary to treat damage to the salmon fishery as a serious matter, while damage to fisheries of a non-commercial value is not considered important.

The Crown is well aware that there are enforcement deficits regarding environmental infractions, and is thus reviewing ticketing regimes (or administrative means of punishment) under several pieces of legislation. The advantage of having administrative ticketing regimes is that they allow the investigating department to deal with minor offences without committing the time and resources required to gather evidence and develop a court case. The disadvantage of such a system is that discretionary control shifts from the judiciary to the department and especially to its investigating officers in the field. This will require more intensive training of field personnel, and may result in a reactive enforcement regime. Additionally, the investigating department would still be required to gather evidence and prepare a case if the ticketed party chose to defend his or her actions in court. Under these circumstances, the investigating department would be no further ahead.

3.3.7 OTHER AGENCIES

There are several other agencies which potentially play a role in preventing or responding to spills on Crown lands in the Yukon. These agencies work within the

Yukon Territorial Government and are generally not mandated with the power to interfere in federal jurisdictions.

The federal government's initial funding to the Yukon enabled the Territory to establish the Transportation of Dangerous Goods program; through this program, the federal government came to more fully understand the scope of potential risk involved in the transportation, the handling, and the possible accidents involving dangerous goods in the Territory. However, subsidies to the Yukon for TDG enforcement have declined since program introduction, and program withdrawals have resulted.

Alberta presently regulates each stage of the handling and transport of dangerous goods within the province: from consignor through transport to consignee. In the Yukon, however, monetary restrictions, combined with an opinion among some senior bureaucrats that TDG enforcement is not sufficiently important, have blocked a fully funded program. Therefore, the Yukon only enforces those regulations developed under the TDGA for highway transport of dangerous goods.

A Transport Canada inspector from Vancouver is scheduled to visit every two months to enforce consignor and consignee obligations in the Yukon. This arrangement is not sufficient, however, to effectively monitor local transactions where dangerous goods are offered and received. Thus, both consignor and consignee obligations under TDG legislation are weakly (if at all) enforced in the Yukon.

The (Yukon) Environment Act is a recent piece of comprehensive legislation which prescribes that spills be reported, and that the impact spills of hazardous or toxic substances have upon the natural environment be mitigated. This statute, although positioned to fill a gap which now exists in federal legislation for responding to spills on private land, has an uncertain capacity for jurisdiction over spills which occur on federal Crown lands.

What influence the Environment Act, and officials from YTG Environmental Protection will have upon environmental emergencies occurring on Crown land will depend upon how events unfold during the next few years. Personal and corporate duties prescribed for spill reporting, spill containment, and rehabilitation of natural environments may apply to discharges of toxic substances where not otherwise addressed by the federal government or federal legislation. The degree to which this statute will be able to regulate the life-cycle of toxic substances will depend greatly upon several factors: the scope and power of regulations not yet created; devolution of responsibilities, program transfers, or other special arrangements with the federal government; and possibly a test of jurisdictional will in the court system.

A common desire expressed by agencies currently responding to spills of hazardous and toxic substances is for an enhanced capability to control spill situations and mitigate the effects of spilled substances upon the environment. To this end, the YTG Emergency Measures Organization is attempting to develop an advanced emergency spill response team.

EMO is trying to solicit funds and members from both the federal and territorial governments in order to establish a spill response team and purchase the necessary equipment. The spill response team would not act in a lead agency capacity as first responders but would instead react if others could not manage to control a hazardous situation. The team is not intended to replace industry association spill teams, however it would respond to uncontrolled emergencies if cost recovery mechanisms were in place.

CHAPTER 4 - LEGISLATIVE / AGENCY LINKAGES

4.1 - CHAPTER 4 INTRODUCTION

This chapter serves to link the legislation discussed in Chapter 2 with the governmental agencies and departments responsible for administering the particular statutes (as discussed in Chapter 3). A further purpose of this chapter is to indicate the legislative basis by which the various federal and territorial departments and agencies were created — specifically those governmental bodies which are mandated to respond to, prevent, and/or investigate spills which occur upon (federal) Crown lands. And finally, this chapter will direct the readers attention to some of the strengths, and especially some of the weaknesses, in the present system.

4.2 - FEDERAL AGENCIES AND LEGISLATION

4.2.1 - EPS, ENVIRONMENT CANADA: DEA - CEPA - FISHERIES ACT

The Canadian Environmental Protection Act is administered in the Yukon by the Department of the Environment (Environment Canada). The Act authorizes the Minister of the Environment to designate qualified persons as inspectors for the purposes of promoting and ensuring compliance with CEPA and any regulations promulgated under CEPA (CEPA, s. 99(1)).

Environment Canada was established under Parliamentary writ by the Department of the Environment Act (R.S.C. 1985, c. E-10, s. 2); the Minister of the Environment is appointed to preside over the department (*ibid.*, s. 2(1)). The Minister's authority

includes all matters relating to the environment within Parliament's jurisdiction, where not otherwise assigned.

One of CEPA's primary strengths concerns the life-cycle control of toxic substances. The Minister of the Environment's authority to make regulations to control a toxic substance extends to all phases of that substance's life-cycle, from production to disposal, and more importantly its storage, handling, and release. For those substances which are regulated under Part II, the Act specifies strict requirements to report real or imminent spills to the government, to remedy the situation, and to notify other affected persons. Where there is a reasonable likelihood of a release, inspectors can direct persons in the undertaking of preventative measures.

Another advantage of CEPA is the Minister's ability to develop environmental codes of practice. These may serve a proactive role by specifying safe storage and handling procedures, as well as other measures to reduce the risk of release of any substance. Alternately, a code can be developed outlining spill reporting and response procedures. These codes can be created to apply to any business activity or undertaking where substances are found. This gives the federal government considerable flexibility to influence the control of any substance which it considers a danger to human or environmental health.

Part IV of CEPA deals with federal Crown lands. Section 54 empowers the Minister of the Environment to make regulations applicable to federal lands for the

protection of the environment. Furthermore, where there exists a reasonable potential of a release of a substance in contravention of a section 54 regulation, section 57 prescribes an express duty for persons to report spills or impending spills (subject to reporting regulations), to take remedial action, and to notify public members who may be affected. This is a strong point of the CEPA legislation where it may be applied to federal lands.

Under Part IV, section 54 and 57 provisions give the federal government a wider latitude than similar provisions contained in either the Fisheries Act or NIWA. The relevant provisions of CEPA are not limited to waste or a deleterious substance, nor are these sections restricted to water or being detrimental to fish.

Offence and punishment provisions contained in CEPA are considerably more rigorous than provisions found in other Canadian environmental statutes such as NIWA or the Fisheries Act. Maximum fines up to \$1 million dollars and jail terms up to five years in duration, as well as criminal code provisions and liability for corporate officers should provide a strong deterrence effect if properly administered.

However, CEPA has a number of shortcomings. There are an estimated 32,000 chemical substances in use in Canadian industry (Environment Canada, 1985). Of these chemical substances, less than 100 are presently highlighted on the combined lists: the List of Toxic Substances and the Priority Substances List. Some critics would contend that this gap in numbers between Listed substances intended for priority regulation, and

chemicals currently in commercial use indicates a weak federal approach to the regulation of existing toxic substances. As a result of this small, exclusive list of toxic substances, Environment Canada's power to respond to spills (under CEPA legislation) is limited to a few regulated substances.

As well, CEPA's requirement that spillers mitigate the environmental effects of a spill implies that the response required of those responsible stops at mitigation (lessening the effects) and may not extend to the repair of environmental damage. No clear standard for environmental remediation or rehabilitation is yet advanced.

Although providing the Minister with a means to address a weakness which presently exists respecting a lack of enforceable standards for Crown lands, CEPA also allows for the incursion of other federal Ministers into what is intended to be a national environmental program. Regulations are permitted under section 54 only if similar regulations are absent in other legislation, and only with the *concurrence* of the Minister of the federal Crown department responsible for administering particular federal lands. Thus, the Minister of the Environment's power to develop preventative and spill response regulations under Part IV is fettered by potential intervention by other federal Ministries.

This legislation needs to clarify a spill reporting standard in order to be complete. Although section 36 specifies a duty to report and respond to spills of toxic substances, this section is subject to regulations not yet promulgated (see Duncan, 1990). Some critics suggest that the absence of the regulation creates a confusion about the true nature

of the duty: others would argue a defence may be established. Thus an argument can be made that the duty to report would be taken by a "reasonable man," however a defence is also possible in the absence of reporting regulations.

There are also difficulties found in the implementation of CEPA. The CEPA Enforcement and Compliance Policy promotes an enhanced compliance plateau whereby Environment Canada takes on a proactive role and provides technical information and assistance to the private sector for the prevention of releases of substances into the environment (Environment Canada, 1988c). However, unless this specialized information is transferred to the local agency, and unless the local agency is technically equipped to undertake an effective preventative role, this strength of CEPA legislation and Environment Canada programming will be hampered.

This deficiency of technical capability restricts the Environmental Protection Service's proactive spill prevention role among the Yukon's private sector. Additionally, poor access to technology restricts the agency's capability to control actual spills — the North's access on demand to specialized technology is restricted by distance, the cost and time involved to employ southern specialist contractors, and by a lack of formalized agreements with outside industry teams.

As well, the agency cannot attempt to take on a highly proactive role for spill prevention when staffing levels are fully utilized for present duties. Thus, although CEPA allows for the creation of environmental codes of practice, there is some doubt expressed

locally as to whether EPS can accommodate further duties to ensure that codes are applied in industry.

By swearing an oath to uphold section 36 of the Fisheries Act, EPS Inspectors are designated as inspectors (pursuant to the powers designated under section 38 of the Fisheries Act) and provided with an inspection card by the Minister of Fisheries and Oceans. The Minister of Fisheries and Oceans does not assign EPS inspectors carte blanche powers as a Fisheries Officer, but rather limited powers to enforce only the pollution provisions of section 36. Thus findings which exist outside Environment Canada's inspection and enforcement mandate under sections 36 and 38 of the Fisheries Act must be referred to DFO for confirmation.

EPS enjoys this special arrangement since the Fisheries Act is strong legislation and very flexible regarding the agency's ability to respond to discharges of "deleterious substances." The Yukon's judiciary, however, is diminishing the agency's desire to expend time and energy pursuing prosecutions under the Fisheries Act because deterrence through example is being eroded by what are being perceived as "soft" judicial decisions.

4.2.2 - DEPT. OF FISHERIES AND OCEANS: DFO ACT - FISHERIES ACT

The Department of Fisheries and Oceans (as presently organized) was created on March 15, 1979 by passage of the Government Organization Act, 1979. The department was established under section 3(1) of the Act, and provisions were made to appoint a Minister of Fisheries and Oceans to preside over DFO. The powers, duties, and functions

of the Minister are described under section 5 and include all matters within Parliament's jurisdiction relating to sea coast and inland fisheries, as well as related other matters. Section 33(1) provides for the transfer of relevant Acts and Regulations from the Minister of the Environment to administration by the Minister of Fisheries and Oceans. Provisions specific to the formation of DFO, and powers, duties, and functions of the Minister were consolidated under the Department of Fisheries and Oceans Act (R.S.C. 1985, c. F-15, s. 3).

The Department of Fisheries and Oceans is responsible for administering the Fisheries Act (R.S.C. 1985, c. F-14). Subsection 5 of the Act authorizes the Minister to designate any persons as fishery officers, and defines the role and powers fisheries officers may exercise under the Fisheries Act or "any other Act of Parliament." The Minister of Fisheries and Oceans also designates qualified persons as inspectors under subsection 38(1) and empowers these persons with specific enforcement and inspection functions. The Department of the Environment is authorized by Prime Ministerial Instruction issued in 1978 and 1979, and by a 1985 Memorandum of Understanding, to enforce pollution control provisions (s. 36) of the Fisheries Act. For that purpose, the Minister of Fisheries and Oceans names inspectors from Environment Canada as inspectors (but not as Fisheries Officers) under the Fisheries Act.

The Fisheries Act is the principal federal water pollution control statute utilized in Canada. This strong and flexible piece of legislation has a good national history of enforcement. One of the strengths of the Act is that the definition "deleterious substance"

has a broader application than that of "toxic substance" under Part II of CEPA (although not as broad as a "substance" under Part IV). The court system has ruled as "deleterious" a wide range of substances.

An ability to take action during emergency situations which may impact fish is one strength of the Fisheries Act. Fisheries Officers and Inspectors are empowered to intervene during exigent situations and may direct spill control and remediation efforts, or direct the implementation of measures intended to prevent an imminent spill or deposit. Also, any breach of the Fisheries Act may culminate in an order for the guilty party to improve systems, thereby reducing the potential incidence of a future spills.

Although the Fisheries Act prescribes a duty to report a deposit or imminent deposit of a deleterious substance into fish-bearing waters, regulations have yet to be promulgated defining the reporting mechanism, thus weakening this prescription (see Duncan, 1990). While it is still reasonable to anticipate that the duty to report exists, the wording of section 37(4), specifying a duty to report "in accordance with" any regulations, does provide a defence where applicable regulations are absent.

A further weakness exists with inspection powers granted to inspectors at Environment Canada under the transfer arrangement. While the responsibility for enforcing section 36 of the Fisheries Act is transferred to Environment Canada, many of the powers to investigate and enforce the Act remain vested in DFO; this limits the active role inspectors from Environment Canada can assume under section 36.

Judicial decisions and interpretations of the various sections of the Fisheries Act within the Yukon have also led to a decline in the effectiveness of this statute. The Yukon judiciary has been described as taking a "liberal interpretation" of various provisions; this has led to a reduction in fines during sentencing, and has thus diminished the aspect of deterrence via prosecution. Fines, when meted out, have been minimal in nature and may conceivably be viewed as a "cost of doing business" (Zealand, pers. comm. 1992).

The Department of Fisheries and Oceans provides departmental staff members with excellent training in enforcement methodology, and backs this training with an enforcement policy for the Pacific Region. Despite a good access to training, however, the department considers itself critically short-staffed and thus unable to effectively enforce the Fisheries Act.

This staffing shortfall especially affects the agency's ability to respond to spills; thus the agency is often unable to be active in many spill response situations. Relinquishing investigations to other agencies is tempered with a certain mistrust, however, as the department appears unsure that environmental effects upon aquatic communities will be adequately addressed by those other agencies. The Department of Fisheries and Oceans also evidences a weakness in their internal capability to comprehend the impact of certain chemicals upon aquatic communities, despite technical support in this area by Environment Canada under the Memorandum of Understanding for EPS coverage of section 36.

4.2.3 - WATER RESOURCES DIVISION, DIAND: NIWA & YWA

The Minister of Indian Affairs and Northern Development presides over DIAND, which was established in October 1966 and re-affirmed under section 2(1) of the Department of Indian Affairs and Northern Development Act (R.S.C 1985, c. I-7). The management of the affairs and resources of the Northwest Territories and the Yukon Territory fall within the duties, powers, and functions of the Minister, as do other matters. The Minister of Indian Affairs and Northern Development is empowered to administer all Acts, orders, and regulations, not otherwise assigned, relating to any matters mentioned within the "DIAND Act."

The Northern Inland Waters Act, administered by the Water Resources Division of DIAND, was never intended to be a strong piece of environmental legislation, although the Act provides for the protection of northern waters by prohibiting the deposit of wastes to northern waters unless otherwise authorized. Thus NIWA has been utilized during the past in an environmental capacity, and persons who have spilled waste substances (or deposited waste without authorization) have been prosecuted for their actions. However, NIWA was not applied very often because the Fisheries Act has been well tested in the courts. The Act has its serious limitations, especially with regard to a person's duties regarding spilled substances, and thus is being replaced in the very near future by the Yukon Waters Act.

The definition of "waste" under NIWA is considered by many critics to be less limiting and less confining than that of a "deleterious substance" under the Fisheries Act.

"Waste," as defined under NIWA, may be any substance added to water which would result in a detrimental impact to "man or by any animal, fish or plant that is useful to man."

The Yukon Waters Act brings even greater flexibility to the definition of a "waste" substance and is thus an improvement over NIWA. The definition is less anthropocentric in nature; it focuses not upon use of water by an organism which is in turn useful to "man," but rather upon the use of water "by people or by any animal, fish, or plant." An additional strength relates to the Minister's authority to create regulations specifying substances and quantities or concentrations of substances in water as "waste." The Yukon Waters Act also serves to clarify the department's jurisdiction for the forms and locations in which water is regulated under the new Act.

Section 7 of NIWA prohibits the deposit of waste into any waters, or in any place where the waste could enter any waters except as authorized. This section has generally been applied to spill situations. A severe weakness of NIWA, however, is that it does not impose a duty for persons responsible for a deposit to report the deposit, nor does the Act specify a requirement for those responsible to control the spill or to remediate environmental effects. This is especially true for substances which are not otherwise regulated by licence provisions. Individual water use licences may contain reporting duties; licences may also require the operator to conduct risk assessments and develop spill contingency plans. A review of just two operating licences, however, failed to establish consistency respecting government's request for such protective measures.

Section 9 of the Yukon Waters Act reads similar to NIWA's section 7 regarding a prohibition against deposit, with one notable exception. Section 9(3) of the Yukon Waters Act prescribes an express duty to report unlawful deposits (read: including spills) of waste in accordance with regulations, if any, created under s. 33(1) to a designated inspector. Although significantly improved over NIWA, this section is inherently weak because it does not specify a duty to report impending spills, thus reducing the chances of prevention. Additionally, there is no prescribed duty for responsible persons to undertake immediate action to prevent impending spills, or apply any other mitigation efforts without first consulting a Water Resources inspector. Making the duties of spill response contingent upon the direction of an inspector may result in delays which could further exacerbate a spill situation and lead to greater environmental damage. This aspect of the response mechanism thus weakens the administration of response.

Regulation-making powers are strengthened and expanded under the new Act; the Minister is authorized to create regulations regarding the mechanisms of spill reporting, the definition of waste substances, minimum mandatory reporting levels, as well as other matters. Thus, regulations may be promulgated which will strengthen spill capabilities in the Yukon Waters Act.

Both acts authorize the Minister of Indian Affairs and Northern Development to designate any qualified person as an inspector for the purposes of enforcing the respective Act. The Yukon Waters Act, however, allows for a proactive role to be undertaken by an inspector of the department. Under the new Act, where an inspector believes on

reasonable grounds that waste has been or may be deposited in contravention of the Act or regulations, which may adversely affect persons, property, or the environment, the inspector may direct any persons with measures intended to prevent a deposit or remedy adverse effects. Thus an inspector may issue a direction to improve storage facilities which the inspector considers inadequate and at risk of permitting a spill. A further improvement over NIWA is that inspectors under the Yukon Waters Act may undertake measures to prevent an unlawful release or to remediate any effects of a release. The Crown may then recover costs for the inspector's "services" from the responsible party.

Neither NIWA nor the Yukon Waters Act make any provision for developing an enforcement policy. This is a weakness of the legislation, and of the Department of Indian and Northern Affairs, that has apparently been highlighted by the Auditor General of Canada. Without an enforcement policy and clear-cut intent from administrative superiors, the deterrence effect of attempting to enforce water legislation is negligible. Additionally, inspectors within the department have not received any department-sponsored training in enforcement.

NIWA does not take any proactive stance; the legislation is strictly reactionary — responding to an emergency when a waste substance is deposited in northern waters. The Yukon Waters Act does allow inspectors to take a limited preventative approach to their inspections. This approach, however, requires that the inspector believe on reasonable grounds that a high probability for release of a waste substance exists before the inspector can investigate and issue a direction outlining preventative measures. Also, given the

highly technical and sometimes specialized requirements of spill prevention, there is some question whether the Division can fulfill this capability without further training or support.

4.2.4 - LAND RESOURCES DIVISION, DIAND: TERRITORIAL LANDS ACT

The Land Resources Division was created shortly after the Department of Indian Affairs and Northern Development was established by Parliament under the DIAND Act. This division is responsible, under the Minister of Indian Affairs and Northern Development, for administering the Territorial Lands Act, the Territorial Land Use Regulations, and the Territorial Lands Regulations.

Territorial Lands Act

The Territorial Lands Act is the central piece of legislation guiding the Land Resources Division. The Act provides the legislative means by which regulations can be developed to administratively manage use and "disposal" of territorial lands. This management function is accomplished via various mechanisms such as permits, and disposal through grants, leases, or other means. The Act prescribes the federal government's authority to make regulations respecting the protection, control, and use of the surface of territorial lands. No provision is made for the appointment of inspectors under the Act except by regulation, and there is no prescribed authority stated by the Crown to undertake such inspections. This arrangement diverges significantly from other federal environmental acts which often designate a Minister's authority to appoint qualified persons as inspectors and provide for powers, or for 'power making regulations.'

Two main bodies of legislation flow out of the Territorial Lands Act: the Territorial Land Use Regulations, and the Territorial Lands Regulations.

Territorial Land Use Regulations

The Territorial Land Use Regulations apply to the protection of permit and non-permit territorial lands; they do not cover lands wherein the Minister has "disposed of" the surface rights, such as lands held under a lease, or lands administered under the Quartz Mining Act or the Placer Mining Act. Section 5 authorizes the Minister to designate persons as inspectors for the purposes of *these* regulations. Inspectors are empowered under section 38 to enter any permit lands to conduct an inspection and thus determine whether the provisions of the Regulations are being complied with.

The main control of toxic and hazardous substances occurs through the permitting process. The government's Land Use Engineer has the ability to include within a permit any terms and conditions respecting the use, storage, and handling of any chemical or toxic material to be used in the land use operation, as well as terms and conditions respecting petroleum storage facilities. These provisions can result in powerful safeguards, depending upon details employed, and can allow for the design of site-specific requirements for the control of these substances.

Non-permitted activities on Crown lands, such as some exploration activities, are not subject to blanket provisions regarding the use, handling, and storage of toxic chemicals. There are blanket provisions, however, for fuel storage activities on such

lands. A weakness is evident therefore in the area of toxics for activities occurring on non-permit lands.

There are no requirements under the Act or the Regulations for the land use operator to report spills to an authority of the federal government, thus providing a weakness in the government's response capability. After completion of the Permittee's activities, rehabilitation of a permittee's site is prescribed under section 18, and subject to the terms and conditions of the permit. No such rehabilitation measures are prescribed for users of non-permit lands, another weakness evident in the legislation. Guidelines have been produced to lessen the environmental impact of such activities, however these are not enforceable.

Territorial Lands Regulations

The Territorial Lands Regulations (C.R.C., 1525) provide the Minister of DIAND with a mechanism by which the Minister can provide land grants, or lease or otherwise "dispose" of territorial lands. Leases for land are long term arrangements which are made between the lessee and the Minister. A lease may be provided for a 30 year term after which the Minister may renew the lease.

This piece of legislation allows no efficient means by which the government, as issuer of a lease, is able to ensure that the public good is being maintained by the lessee during the term of a land lease. There is no prescription within the text appointing

inspectors, nor any enforcement provisions stipulated. Environmental provisions, if prescribed, may be specified within particular lease agreements.

There are no duties specified in the Regulations to report spills of hazardous or toxic substances nor to respond to such events and mitigate the environmental effects. This shortcoming of the legislation concerning spills occurring upon leased Crown lands — soils — is a weakness which has been highlighted by several federal agencies. Depending upon the duties and conditions the Land Use Engineer specifies in a lease document, this aspect may or may not be adequately covered. Certainly, major leases currently being negotiated should have such provisions built in, either in the lease or through other legal mechanisms, in order to meet the requirements of DIAND's Environmental Assessment Review Process (EARP), which screens each major project to ensure that all environmental concerns are covered.

In many cases a regionally posted Resource Management Officer may not know the details of a particular lease and thus is ill prepared to react to emergencies. Additionally, there is debate whether an RMO is indeed authorized to intervene since there is no specific mechanism in place within the Act or the Territorial Lands Regulations to appoint inspectors or to authorize them in any monitoring or enforcement capacity. Some individuals, however, maintain that as "agents of the Crown," government inspectors may monitor all activity on Crown land (Guscot, pers. comm., 1992).

The only explicit authorization contained within the Regulations for inspections of the land surface is to allow a land agent to gain an appreciation for the lay of the land, when the land under application has not been surveyed. The Regulations neither provide for the Minister to designate inspectors nor does the Regulations provide for rights and duties of inspection. Although section 12 reserves certain rights of access to the lease lands, none of the purposes for entering the lands specify the Crown's intention to ensure compliance with the terms of a lease agreement. Thus the entire enforcement regime for administering compliance with a lease agreement is weak.

The Land Resources Division maintains field operations with offices in most communities in the Yukon. The ability to continually cover the various regions of the territory is thus a strength which the agency possesses. But by not providing regional Resource Management Officers with the proper enforcement training or with an enforcement policy, and in the absence of the political will to provide and monitor regulation, this regional capability is significantly weakened. Also, although such inspections sometimes may occur, the capacity of the department to inspect lands held in mining claims is compromised by a break in legislated authorization. Finally, spill clean-up supplies are generally not maintained at the regional offices, thus the remediation capability for these potential first-responders is reduced.

4.3 - TERRITORIAL AGENCIES AND LEGISLATION

The Yukon government has attained jurisdiction over many provincial-type responsibilities, however the Yukon's constitutional status is considerably different from that of a province. The Yukon derives its authority to exercise executive power from an Act of Parliament, the Yukon Act, and from letters of instruction from the federal Minister of Indian Affairs and Northern Development.

The Commissioner of the Yukon is appointed by Parliament (the Governor in Council) to preside over and administrate the government of the Yukon. The Yukon Act grants the territorial government the authority to draft legislation (with Ottawa's consent) in areas essentially identical to that of provincial governments, including the regulation of environmental pollutants.

Thus the Yukon government — the Crown's representative, the Commissioner, plus the elected Executive Council — derives its executive authority and attendant law-making authority from the federal Crown, as prescribed in the Yukon Act. Because of this unique relationship within the Canadian Constitution, the Yukon government has at times been perceived by some key federal departments simply as a subservient agency of the federal government (Cameron & Gomme, 1991).

The Yukon government's (the Commissioner in Council's) authority to appoint "territorial officers" in order to effect the machinery of territorial government is prescribed

in section 17(b) of the Yukon Act, whereby the Commissioner in Council may enact legislation in relation to

(b) the establishment and tenure of territorial offices and the appointment and payment of territorial officers...

(R.S.C. 1985, c. Y-2)

4.3.1 - YTG PROTECTIVE SERVICES BRANCH: GASOLINE HANDLING ACT

The Gasoline Handling Act reinforces the Commissioner in Council's authorization to appoint persons necessary to assist in the enforcement of the Act and Regulations (s. 9(a)). Thus, the Fire Marshal and any assistants or inspectors are appointed by the Commissioner in Executive Council; the appointments are recorded in the Yukon Gazette. Additionally, section 8 defines the powers an inspector may assume during the course of his or her duties.

The Fire Marshal's Office, part of the YTG Protective Services Branch, also administers the Fire Prevention Act (R.S.Y. 1986, c. 67). The Yukon government appoints a Fire Marshal and other inspectors for the purposes of the Fire Prevention Act (s. 2). Section 13 of the Act empowers the Fire Marshal or assistants to inspect wherever an inflammable or potentially explosive substance, or a hazardous condition is present. The same section authorizes the Fire Marshal or assistants to order those responsible to remedy a hazardous situation.

The Fire Prevention Act also provides a link with the Gasoline Handling Regulations (or other legislation dealing with inflammables) by authorizing the Yukon

government to create regulations respecting the storage, sale, and use of inflammable liquids (s. 23(d)), and to make regulations of a general nature to effect the purpose of the Act (s. 23(i)). The National Fire Code was adopted by an Order in Executive Council. Thus, YTG Protective Services reserves an option to draw upon the Gasoline Handling Regulations, or alternately apply the environmental code provisions of the National Fire Code. This enables the agency with considerable flexibility.

Because Protective Services is currently reviewing and renewing applicable regulations for controlling flammable and combustible substances, a full discussion of the relevant strengths and weaknesses of the legislation applied by the agency may not be warranted. A few observations, however, follow.

Although comprehensive in nature, the Gasoline Handling Regulations are technically dated. The main spill provisions contained within the Regulations pertain to the operator's duty to prevent spills or leaks (s. 11(7)). The Regulations specify a duty to report leaks to the Fire Marshal within 12 hours or 48 hours of this knowledge, depending upon whether the leak results from an underground storage tank or an above ground tank. If an explosion occurs which results in personal injury or death, a 24 hour reporting grace is specified. The different reporting periods serve as a source of confusion; it may be preferable to state: "immediately upon learning, or as soon as practicable in the circumstances."

Environmental provisions are also weak, requiring the operator to remove and dispose of spilled product but not specifying any duty to repair damage to the environment. The National Fire Code (environmental code sections) is marginally better, requiring the recovery of escaped liquid and removal or treatment of contaminated soil. Because the National Fire Code applies more to safety in mechanical design and operational procedure, there are no reporting mechanisms stipulated. Neither of these two documents present strong obligations for environmental remediation.

The deterrence effect for non-compliance is minimal under this legislation. The Gasoline Handling Act provides for a maximum fine of \$500. A possible six month prison term provides a higher level of deterrence, however. The Fire Code provides for a \$200 fine.

One of the strengths evident with YTG Protective Services Branch is that the agency can take a proactive role in preventing spills from occurring. This function occurs as a result of storage facility inspections and by applying and enforcing the codes and regulations at the agency's disposal, documents which are designed to prevent escape of flammable and combustible substances.

This apparent strength is compromised, however, by an agency which is required to cover too much of the Yukon's geography with inadequate staffing resources. The one employee in the agency with a primary duty to conduct inspections must divide his time

between inspecting gasoline installations, and buildings for fire code violations. As a result, some areas of the Yukon are not inspected with any regularity.

The effect resulting from the shortage of available staff is also evident during environmental emergencies. Gasoline spills which occur in areas which are easily accessed from Whitehorse receive a good emergency response by Protective Services, while those occurring in the hinterlands may be sub-delegated to another territorial agency such as Highways Branch (thus further reducing the "one window" approach). Alternately, the Fire Marshal may request that Environment Canada take over the lead role for responding to and investigating gasoline spills which happen in less immediately accessible areas of the Yukon. Thus, Protective Services has a low internal ability to meet the agency's commitment under the "Letter of Understanding for Government Response to Spills in the Yukon."

4.3.2 - YTG ENVIRONMENTAL PROTECTION BRANCH: ENVIRONMENT ACT

The potential ability of the Yukon Environment Act to influence the control of toxic and hazardous substances on Crown lands has been discussed in Chapter 2. There is considerable debate about the jurisdictional authority this statute may have respecting activities which occur on federal lands. One of the more probable positions is that the Environment Act may apply to those activities which are not otherwise regulated — the view popularly held is that the regulations promulgated under the Act will serve to fill gaps presently not occupied by federal regulation. Constitutional authority and

jurisdiction may well play a central part in the relevance of the Environment Act to spill activities on federal Crown lands.

Environmental Protection Officers are appointed under section 63(1) of the Act. Appointments are made by the "Minister" of the Executive Council who is responsible for administration of the Act. This serves as a departure in wording from other Yukon legislation, whereby appointments are generally made by the "Commissioner" in Executive Council — the Yukon government with the grace of the Commissioner of the Yukon. The "Minister" is similarly provided with responsibilities, and with powers and duties, under section 58 and section 59, respectively.

Part 13 of the Act deals exclusively with enforcement issues. The Minister is required to establish an enforcement policy governing the exercise of discretionary powers under the Act (s. 150). Environmental Protection Officers are empowered to conduct thorough investigations, to search for and seize evidence, and to issue environmental protection orders, plus other powers. The Minister and the courts may apply more stringent measures, including closure of facilities regulated by permit under the Act. Certainly, the Environment Act is well appointed with provisions for enforcement.

Spill provisions are contained in Part 11 of the Environment Act. Here again, the Act exhibits strength and flexibility for the government to react. The definition of a spill is comprehensive in nature, however it may also prove to be ambiguous, requiring the report of a release "abnormal in quantity or quality in light of all the circumstances."

Fortunately, there is also a provision for the territorial government to enact regulations which may specify a *de minimus* standard. "Substances" which are spilled include among other things hazardous substances and contaminants; the definition of contaminants is broadly based and extends to a wide variety of 'things' which may cause an adverse effect. Thus spill reporting and response requirements may become widely encompassing through such a broad definition.

The personal duty to report spills (s. 133) and to mitigate and repair any environmental effects (s. 135) are both comprehensive in mechanics and concise in wording (without any "subject to's" hanging on to cast doubt about a person's legal obligation). The Minister or an Environmental Protection Officer is granted considerable power to direct activities or take any measures necessary to remediate a spill (s. 136). As well, a right to access is granted to an Environmental Protection Officer under exigent circumstances (s. 139).

Another strength of the Environment Act is the proactive measures prescribed under Part 10 which the territorial government may require of those who store or otherwise handle hazardous substances. The government may request risk assessments, spill contingency plans, and other preventative tasks be undertaken in order to reduce the risk of a release of a hazardous substance.

Very strong penalties are provided for under the Act. A typical first offence may net a \$300,000 fine or up to six months imprisonment, or both. Where criminal

negligence is involved, however, the penalties increase to a \$3 million maximum fine or up to five years imprisonment, or to a combination of both. Such harsh penalties may enhance deterrence.

As previously discussed, there are a number of factors which must unfold before it can be determined what impact (if any) this legislation will have upon activities which occur upon Crown lands. At present, there are no Environmental Protection Officers appointed nor any infrastructure in place to allow for enforcement of the Act. Regulations have yet to be drafted to define the true nature and scope of this legislation: the government expects to complete this process by late 1996. Thus the reach of this Act will depend upon regulations, and upon any special working arrangements made with Ottawa which may include devolution of power from the senior government.

CHAPTER 5 - INDUSTRY'S PERSPECTIVE

5.1 - CHAPTER 5 INTRODUCTION

With the surging growth and popularity in contemporary Canadian society of the concept of sustainable development, industry has become more aware of their social and moral obligations to safely manage risks associated with the use of hazardous and toxic substances. Sustainable development, as a concept, is helping to shape industrial thought in Canada, and has been a driving force for new policy initiatives from a number of national industry associations.

Environmental legislation has been evolving at a rapid pace, paralleling this evolution of current thought in sustainable development. The World Commission on Environment and Development (1987) recommended "giving environmental agencies increased power to cope with unsustainable development." Newer environmental statutes in Canada have become increasingly structured, and provide for harsher penalties, including prescribed liability for the upper corporate echelon.

More enlightened corporate boards are well aware of current environmental liabilities and consequently the need to integrate the due diligence criterion into daily and long-term corporate planning (Bisson, 1990). Due diligence requires that industry review their operations and ensure that the corporation is providing training, and applying technologies and procedures which adequately protect humans and the environment. Thus, risk assessments, spill contingency planning, and emergency preparedness are tasks which are becoming more commonplace at industrial complexes in Canada.

Canadian industry, realizing a need to change with a societal call for sustainability, and faced with new and tougher legislation, is beginning to react to evolving events in a progressive manner. In the wake of the Bhopal disaster, the Canadian Chemical Producers' Association commissioned a process by which members could thoroughly examine plant operations to ensure the industry was managing products and processes responsibly. Elements of the investigative process included risk assessments and contingency planning (Belanger, 1989).

The Mining Association of Canada, well aware of the negative image many Canadians have about the impact mining has upon the Canadian environment, has been participating in discussion and policy formulation for sustainable development, especially where there is a relation to mitigating environmental impacts. The MAC (1989) approved an environmental policy in 1989 which is binding upon all Association members. The Association, like other industry groups, also developed a "Guide for Environmental Practice" and is developing codes of practice for each phase of the industry's operations (MAC, 1990a).

By adopting the 1989 Environmental Policy, the Canadian mining industry committed itself to maintaining a "high standard of environmental protection" (MAC, 1990b). The guide reinforces adherence to all applicable legislation providing for protection of the environment and of humans, and the application of cost-effective best management practices to minimize environmental impact where legislation is absent. The MAC policy advances self-regulation by member companies to prevent spills and

emergency releases through undertaking risk assessments, developing spill contingency plans, and implementing preventative systems.

Other large organizations such as the Canadian Petroleum Association have developed similar environmental codes of practice (Smyth, 1987). Smaller organizations and corporations have also responded to the challenge of sustainable development and have issued environmental policies and codes of practice of their own (for example: The Prospectors and Developers Association of Canada, 1991; Placer Dome Inc., n.d.). A feature common to each of these environmental codes of practice, where hazardous and toxic substances may be utilized during the course of that organization's activities, is a requirement for spill contingency planning as an integral component of operation.

Thus Canadian industry has expressed its intention to answer the call for practices which promote compliance with environmental legislation and serve to promote protection of the natural environment through good management and self-regulation. In exchange, the private sector is requesting that Regulators also become more sensitive to the needs of industry.

Nationally, industry organizations are calling for regulatory systems that accommodate flexibility in achieving a noble, common goal, systems that allow for innovation in the design and implementation of measures to protect the environment (Smyth, 1987). Corporations are frustrated by regulatory duplication, which appears to be inherently common to the Canadian constitutional system with its complex division of

power (MAC, 1990a; Bruchet, 1987). As well, the private sector is admonishing government to provide fair, effective, and consistent regulations (MAC, 1990a), and to punish those corporations which don't meet compliance with environmental laws, and to find ways to reward those which do (Smyth, 1987).

5.2 - YUKON FRAMEWORK

Locally, industry appears variously satisfied and frustrated, both by the application of environmental legislation in the Yukon, and by the manner in which various industries and the various agencies interact. A number of companies in the major Yukon economic sectors were contacted in order to gain an appreciation for Yukon industry's perspective on the legislation which demands a duty to prevent and mitigate spills of hazardous and toxic substances, and on the federal and territorial agencies which administer these laws. As can be expected from such a survey, the frustrations outnumbered the accolades. This should not be considered a balanced view or a report card on the nature of the legislation and the agency personnel applying the laws: rather it is indicative of a quirk in human nature that we tend to remember the evils visited upon us more clearly than the niceties. Nonetheless, the points expressed indicate weaknesses (and perhaps strengths as well) in legislation and regulatory delivery. Although many of the points expressed were general in nature, for the main part they relate as well to individual and corporate duties regarding spill prevention and spill response for substances which may pose a danger to humans or to the environment.

A range of feedback was received; the most vociferous came from representatives within the mining industry. This industry, despite ranking second only to the combined governments for primary expenditures in the Yukon (Fry, 1992), feels threatened by new environmental legislation and highly competitive world markets. The outspoken nature of the mining representatives is not surprising, however, since the mining sector is the most highly regulated industry in the Territory. In order to conduct business in the Yukon, mining companies must file for various leases, licenses, and permits from various agencies, and must prepare project documents for environmental assessments and reviews by several different environmental review boards. It is not surprising, therefore, that the industry would value an administrative regime which employs less regulation overall, but regulation which is more effective and responsible.

Impeding progress regarding environmental protection is a lack of communication between Yukon industry and government. The private sector does not fully understand the demands required of it by government; government does not appear "sensitive" to industry's needs in a highly competitive world. Industry - government associations may be required in order to bridge this communication gap. Such an association would serve a useful purpose to educate industry and government about the other sector's intentions and requirements.

Industry doesn't always have the technical capability to delineate emerging problems and to fully comprehend complex environmental impacts. Therefore, industry must improve technical skills in environmental protection and governments would provide

a valuable service by implementing an inspection regime which helps to identify potential causes so a problem can be solved in a manner which appears logical to both parties. A cooperative relationship with government, and an inspection/enforcement regime oriented toward identifying potential problems and consulting with industry to create solutions would, therefore, benefit both industry and government.

Cooperation between industry and government during emergency spill situations is especially critical. Inspection regimes which are purely reactionary are also counter-productive. In one company's experience, an overly reactive inspector who threatened prosecution in the face of adversity rather than cooperating with those responsible for a spill by offering advice or assistance created response delays which resulted in a more intense spill, and consequently increased clean-up requirements (Knutsen, pers. comm. 1992). This type of a reaction is not the norm, however, and may have resulted from the interaction of personalities in a non-professional manner.

A major point of frustration for industry is the unsatisfactory implementation of the one window approach, whereby environmental matters are handled by a single agency in one level of government. The "Letter of Understanding" appears to provide for such an approach during spills. As I have discussed, however, jurisdictional quarrels can sometimes lead to a delay in governmental response during a critical time when government and industry need to consult. The requirement for industry to deal with several different agencies for different substances and different aspects of environmental control is consumptive of both government's and industry's time and thus an in-efficient

use of resources. When the two levels of government interact, there may be political posturing while the federal or territorial governments decide which body has jurisdiction. And sometimes, neither level of government may appear interested in accepting clear responsibility for the matter at hand.

Licensed water users operating minesites in the Yukon may have to deal with two levels of government and up to four (or more) agencies, depending upon the particular mandates of the different agencies. The various agencies may perform independent compliance inspections within days of each other; it is not uncommon for one agency to investigate the same concern of an operation as a previous agency — sometimes in order to monitor the other agency's intentions and performance. Inspections cost industry time and money since an employee generally accompanies agency personnel on a work site; as well, governmental inefficiencies are evidenced when human effort, salaries, travel, and support costs are expended for what can be a duplication of effort on the part of government. This duplication may also lead to conflicting advice or directions given by different inspectors, applying different legislation and approaching problems in a different manner. Conflicting directions, which may require the operator to make improvements designed to prevent spills or similar discharges can be problematic.

The lack of a true one window approach can also be frustrating to individual inspectors. Where jurisdictions overlap — such as may exist with EPS, DIAND, and DFO for water matters — directions given by one inspector may be overridden by those made by another agency with stronger legislation. This may result in weaker agencies

not giving advice or direction to an operator, expecting that the stronger agency will provide the required direction.

The competitive nature of business requires that decisions be made based upon the best available information and without undue delay. Federal agencies appear to take a considerable amount of time responding to industry's request for guidance respecting particular obligations and solutions which may be acceptable to government. Where a decision must be made to prevent a release, industry must rely upon their own solutions and hope that Regulators are satisfied with the approach taken.

Government's willingness to accept creativity and innovation, where logical, may be required in order to best effect protection of the environment from spills of hazardous and toxic substances. Flexibility in applying good environmental practices to suit the uniqueness of a particular operation may be required if the end result — improved environmental protection — is to be realized.

The regulation of industry must occur in a manner which is fair and equitable; each regulatory situation must be treated in a common manner with observance to relevant legislation. Effort is misplaced by government when large-scale polluters, such as the City of Whitehorse (which is generally acknowledged to discharge waste in concentrations above licenced limits), appear to be politically insulated from prosecution for pollution infractions while smaller operators are prosecuted for violations involving

short term discharges and spills. Fairness would dictate that both types of operators — big and small — be required to improve their operations to protect the environment.

Additionally, governments need to enforce the rules so that industry has a clear understanding of the rule of law as applied in the field. Law as written and law as applied may vary considerably between situations, thus making it difficult for industry to know the true nature of their obligations respecting applicable legislation. Industry is well aware that government's intent when writing legislation may be misplaced during application.

Environmental problems tend to be complex because ecological systems are in themselves complex and sometimes poorly understood. In striving for solutions to prevent damage to the environment, and in repairing such damage if it occurs, governments and corporations need to be supported by a good scientific database which describes the dispersal of substances into the environment and defines what impacts may be expected through inadvertent release. The urgent call to fully understand the environmental impacts due to releases of various chemicals, is not unlike similar recommendations made by the Science Council of Canada (1988) for concerted research into this area. It is not only necessary to better understand such impacts, but government must more effectively communicate this information and be willing to apply knowledge gained from scientific inquiry to enhance environmental protection.

A corporate strategy which is utilized by progressive Yukon corporations involves launching initiatives for environmental protection which precede legislated requirements. This may mean following codes or guidelines which are not enforced by government, expecting, however, that such documents will become law in the near future. In this manner, progressive operators undertake proactive environmental programs to assess their present operations, prepare spill contingency plans, and generally be prepared with the proper equipment and training to accommodate potential spill emergencies (for instance, White Pass Petroleum maintains an OSCAR van complete with petroleum adsorbent booms and other necessary spill supplies).

Legislation is evolving quickly in the Yukon. Recent new and revised legislation includes the (Yukon) Environment Act, the (imminent) Yukon Waters Act and Regulations, the Quartz Act, and other legislation. Additionally, the composition of resource allocation boards such as the Yukon Water Board and the Surface Rights Board, and new jurisdictional relationships expected with the settlement of Yukon First Nations Land Claims, create a sense of anxiety within the Yukon resource sector concerning what impact these legislative and political changes will have upon future activities. Smaller operators cannot keep abreast with the new regulatory and political regimes since they cannot dedicate individuals to track the evolving regulatory and political systems. New legislation tends to be more complex, intrusive, and difficult to both understand and use. What industry requires, therefore, is a streamlining of legislation, especially regulations, to make laws more understandable by those they are supposed to regulate. This

streamlining process may best be achieved through the government - agency association (with other interested groups represented).

Yukon industry as a whole is unsettled about the impact that the (Yukon) Environment Act will have upon their operations. With so much regulatory power potentially available to the Yukon government, and with the true scope of that power yet to be defined by regulations, industry must contend at present with a great deal of uncertainty about what the regulatory future will hold in store for them.

Gazing into a crystal ball may well be a futile exercise. Whatever the impact the Environment Act will have upon local industry, any regulatory duplication on the part of the territorial government to enforce within the federal sphere of influence is sure to outrage the Yukon's private sector. Local industry will find it difficult to resolve support for another level of bureaucracy to regulate an area which some consider already over-regulated by Ottawa.

CHAPTER 6 - DISCUSSION

Spills of hazardous and toxic substances tend to be isolated events and are not always newsworthy. As a result, the threat to the environment from such emergencies is not perceived to be serious enough for those controlling the limited public purse to support a high level preventative capacity or emergency preparedness. However, public response to events such as Ste. Basile le Grande and Bhopal has evoked a response from politicians to tighten the control of toxic substances.

A common frustration of all departments within the Yukon is their inability to prevent spills from occurring. Some agencies cannot adequately respond to exigent situations when a spill occurs or seems imminent, and all agencies appear frustrated by an inability to deter similar events by providing examples through trial sentencing. Resource limitations which tend to restrict the different agencies' effective capabilities include staffing, equipment, authorization from superiors, and weaknesses in legislation.

Nearly every federal and territorial agency with a mandate to prevent storage losses or to respond to spills, identified a shortage of well trained staff; this detracts from the agency's ability to fulfill mandated responsibilities. Although the Yukon's population base is small, suggesting a need for a smaller bureaucracy, the land mass which must be covered is large.

The larger agencies (Water Resources, EPS) reserve a niche for an employee who has a primary duty for spill programming. This employee may be involved with spill

response, a reporting or co-ordinative function, and some aspect of prevention. Smaller departments or agencies may regard spill response duties as a part of a key employee's other duties. In almost all agencies, one person is delegated as the main contact responsible for proactive roles (if specified) as well as spill response to fulfill particular legislative mandates for a large geographic area.

The YTG Protective Services Branch has been able to accommodate weaknesses in staffing by developing a special arrangement with the Highways Branch to conduct spill investigations in outlying regions. Although this arrangement alleviates pressure on the Fire Marshal to respond to spills, Highways employees are not necessarily well trained in gasoline handling and storage techniques and lack the background to conduct good investigations.

The Yukon has a small population base but a large transient population which grows significantly with heightened activity during the summer, especially in the major mining exploration regions. Elevated summer activities tax the inspection system, requiring increased investigative effort to monitor temporary activities carried out at geological and other camps. As a result, inspections of "stable" long-term operations may be delegated for a much later date, or for the next years inspection activities. The land surface is covered with snow during the winter, and off-season inspections upon Crown lands may not serve to discover land surfaces damaged by spilled substances, and may not identify other shortcomings of an operator's use of land.

Inspector training, especially training in enforcement, varies considerably amongst the federal agencies. The Environmental Protection Service and the Department of Fisheries and Oceans provide training programs for their inspectors in both spill response management and enforcement practices. Both EPS and DFO back their enforcement regime with policy manuals. DIAND offers opportunities for inspectors in the Land Use Branch and Water Resources Division to gain knowledge in the area of spill response and remediation, however there is little direction given by senior bureaucrats, and no training or policy is presently available to guide those empowered to enforce mandated legislation. DIAND's Resource Management Officers, who cover a large territory, are not supported by training, policy, legislation, or apparently by supervisors with a political desire to enforce compliance.

The Territorial government plays a very minor role respecting regulation of activities occurring on (federal) Crown land. This may change in the future, however, depending upon developments as the (Yukon) Environment Act is implemented.

Different departments either maintain a relatively minor inventory of equipment and materials — generally limited to liquid adsorbing materials — for containing or cleaning up spills, or are not equipped at all for any active response capability. The Water Resources Branch of DIAND maintains a modest spill response kit as does EPS, however there is an unwritten rule not to loan adsorbent or other materials outside government — even under emergency situations.

Unlike southern jurisdictions, there are no local industrial spill response teams or similar services to respond to spills which occur at industrial sites located on Crown land. The onus is thus placed upon operators who handle, store (and spill) hazardous and toxic substances to be well prepared in case of a spill. The importance of proactiveness in terms of contingency planning, spill prevention, and developing and maintaining internal response capabilities is thus highlighted by the northern fact that access to southern services may be limited or unavailable, and at best, extremely costly to employ.

A desire among lead agency responders for a well equipped and well trained Yukon spill response team may be met if funding can be secured for such a program. In order to get monetary commitments from the two levels of government, senior management must be made aware of a need to apportion funds; both the initial capital investment to purchase equipment and train personnel, and ongoing operational funding will be required.

Resource limitations — whether they be in people, equipment and supplies, technical capability, or other resources — are seemingly common to all organizations. Thus organizations employ limited resources where they are expected to make the greatest impact or benefit; governments have an awkward tendency to employ resources where they are most visible to the electorate. The risk of environmental damage from spills may not be well understood; thus governments do not always place a high priority on prevention and response programs.

Politicians and senior bureaucrats like to see concrete results in order to commit funding for a program. Thus contingency programs or emergency response programs, where there isn't necessarily a daily demonstrable return, are difficult programs for politicians to justify.

The perception of an absence of danger to the environment is paralleled by an absence of desire by senior management in some departments to pursue prevention and prosecution regimes. When enforcement and compliance policies are not available to inspectors, such as is the case at DIAND, a link is broken. As a result, inspectors may approach their duties with the attitude that the legislation they are empowered to enforce is indeed non-enforceable.

Legislative weaknesses can also serve to reduce government's capability to effectively implement life-cycle management of hazardous and toxic substances. The strongest legislation available for protecting the environment from spills and discharges, however, is relatively impotent if not complemented by a parallel commitment and capability to enforce the legislation.

Each of the various pieces of legislation has strengths and weaknesses inherent to its design. CEPA legislation is broad and powerful; with the promulgation of key regulations, the statute will provide a broad mandate to government to control substances which may be harmful to human and environmental health.

Territorial Land Use Regulations appear adequate for the purposes of prevention and response to spills which happen on Crown permit lands, but contain no reporting mechanism. The Territorial Lands Regulations also lack a reporting requirement, and accommodate little if any clear form of redress for spills occurring on lands held under lease. Activities occurring upon lands administered under mining legislation are exempt from any land-based requirements contained in the Territorial Lands Act or Regulations. This presents a problem for government to address spills onto mining land, in the present system of administration, unless the spilled substance is controlled under alternate law.

The (Yukon) Gasoline Handling Act and Regulations, both of which are intended to serve a highly proactive role, are technically outdated and are presently under review for redrafting. The YTG Public Safety Branch is applying what may be described as a patchwork of codes and statute arrangements during the interim.

The (Yukon) Environment Act is a wide-ranging and comprehensive statute which appears poised to considerably influence personal and corporate conduct as it relates to the natural environment of the Yukon. Yukon industry representatives, however, suggest that their impact upon the Yukon's environment is minimal, and their activities not deserving of the potential reactivity of the Environment Act. Regardless, the Act prescribes a wide range of personal and corporate duties regarding the life-cycle control of substances which may endanger humans and the natural environment. Included is Part 11, a section of the Act which deals exclusively with spill reporting and remediation obligations.

The question of jurisdictional authority of the Environment Act (and of officers appointed thereunder) to control activities upon federal Crown lands has yet to be settled. As well, regulations need to be developed in order to define the true role this statute may undertake in the Territory.

And finally, there is no present federal or territorial jurisdiction in regard to reporting spills or responding to spills on private lands and municipal lands (with the exception of gasoline spills), therefore this is one area in which the Environment Act may find an immediate working niche.

Interagency linkages are not always clearly defined nor well co-ordinated. The "Letter of Understanding for Government Response to Spills in the Yukon Territory" provides for an administrative foundation for a common, "one window" governmental response to spills in the Territory. However, what is theoretically possible does not always translate into practice. A common governmental response will not occur so long as the different agencies have considerably different capabilities to respond to and investigate the causes of spills. While one agency is limited by staff and geography, another may be hampered by weak legislation which reduces an investigative or directive role.

Nor is a common "one window" approach attainable when the mandates of various agencies investigating spills vary considerably — it is not unfathomable to imagine that a Fisheries Officer will investigate gasoline seeping into a ditch (which may in turn flow

to a fish-bearing creek 2 km downstream), in a different manner than will an inspector from YTG Fire Marshal's Office. The two inspectors have received substantially different training and respond to spills differently because they concentrate upon different matters in their normal working duties.

Although the "Letter of Understanding" matches agencies to particular spill situations, there remains a considerable amount of discord amongst the agencies when a spill is reported and a lead agency must be assigned (Gibson, pers. comm. 1992). Where spills cross jurisdictional boundaries and thus agency responsibilities, it may take time to sort out which agency is duty bound to act in a lead capacity: time which may be critical for ensuring an adequate response for spill mitigation and environmental remediation.

As society becomes more knowledgeable about how hazardous and toxic substances adversely impact the environment, government's ability to take a proactive role respecting spill prevention is gaining importance (as is industry's). Both industry and government have critical roles to play for the prevention of spills and other releases of these substances, and thus for the protection of the natural environment. Cooperative ventures in training and research, where the main focus is upon spill prevention and safe life-cycle management of hazardous and toxic substances, would be mutually beneficial to industry and government, and thus would serve society's need for enhanced environmental security.

CHAPTER 7 - SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

7.1 SUMMARY

Having taken a leadership role in spill programming under a 1973 Cabinet Directive, Environment Canada is best prepared among the agencies to deal with environmental emergencies and to play a major role in all aspects of spill control. As the inter-agency spill line coordinator, EPS has developed the internal mechanics for gathering information, delegating investigative responsibility, maintaining control over the situation, and developing a spill information data base.

It is no longer acceptable to simply respond to environmental emergencies: there must be legislative mechanisms available to governments to prevent releases of environmental contaminants before they occur. Hence the creation of a statute such as CEPA which approaches life-cycle regulation of toxic and other substances. For highly toxic substances, the preventative approach may be the only acceptable method of controlling spills and similar discharges (Webb, 1988). Here again, Environment Canada is well poised to take a lead role. Both the Fisheries Act and CEPA provide a proactive capability for EPS inspectors by allowing for investigation and intervention in high risk situations. CEPA's preventative role will become more apparent as regulations and environmental codes of practice are developed.

The Fisheries Act and CEPA also specify duties to report spills and mitigate the environmental effects; however both statutes need regulatory fine-tuning to clarify this reporting requirement. Part IV CEPA provisions focus specifically upon regulating

activities involving toxic and other substances on federal lands; thus regulations developed under this section have the potential to be fully comprehensive and all encompassing with relation to a wide range of duties for a vast array of substances. Again, regulations yet to be developed will determine the impact of CEPA Part IV on the Yukon.

The effect of deterrence must be supported by effective compliance enforcement in order to make effective the rule of law. Environment Canada may not be fully capable of fulfilling its enforcement mandate as long as a lack of political will and staffing shortfalls impede a fully effective program. The agency has a good compliance enforcement foundation however: inspectors receive formalized training in investigative technique and are supported by an enforcement and compliance policy. The Fisheries Act provides for some very stiff penalties, and CEPA penalties and liabilities are the harshest yet of operating Canadian environmental legislation. This combination of enforcement policy and high penalties for violations of CEPA should provide a deterrence effect for persons who may otherwise consider approaching hazardous and toxic substance control with a relaxed attitude.

The CEPA Enforcement and Compliance Policy also promotes private sector compliance through information transfers, education of industry, technical assistance including technical assistance on research projects, and other measures to prevent releases of substances into the environment. The importance of education to enhance industry's awareness of government regulations and requirements may also be achieved through Environment Canada's outreach programs as a leader in spill programming in the Yukon.

And finally, EPS is not subject to the duality evident within the other major federal agency in the Yukon, DIAND, where environmental protection is weighed against northern economic development.

To improve the delivery of spill prevention, spill response, and environmental remediation programs by government, for federal Crown lands, the following recommendations are made. In recognition of the complex legislative and administrative changes that may be required, there follows in sections 7.2, 7.3, and 7.4 three separate scenarios, with 7.2 being the most comprehensive, and in my opinion, the preferred option.

Section 7.5 deals with other measures which need government consideration. Because Yukon industry has an important role in prevention, reporting, response, and remediation of hazardous and toxic substance spills, a number of recommendations (7.6) follow for industry. Finally, section 7.7 includes recommendations of a general nature. Each of the recommendations share a common priority for immediate implementation, in order to enhance protection of the Yukon's natural environment from spills of hazardous and toxic substances.

7.2 FEDERAL GOVERNMENT - EPS LIFE-CYCLE MANAGEMENT & SPILLS

7.2.1. - Conclusion. The current administrative structure for responding to spills in the Yukon does not provide for a true one window approach. The system employed is subject to interagency conflicts when jurisdictions cross. Some of the participating agencies are not prepared or are not always able to undertake a lead agency role, and thus must refuse or delegate that responsibility elsewhere. As well, there is no clear responsibility for reacting to spills which occur on lease lands (EPS, 1988). Inefficiencies in the response path lead to the loss of time which may become valuable during some spill emergencies. Industry in the Yukon calls for a true one window / one agency approach so that government may respond consistently to environmental matters. Environment Canada (EPS) is best equipped of the agencies to undertake a full response role through its flexible legislation (CEPA), its enforcement and compliance policy, its spill coordination infrastructure, and its excellent training.

7.2.1. - Recommendation. The Environmental Protection Service of Environment Canada assume a primary responsibility for responding to all spills which occur on all federal Crown lands. This includes responsibility to act as lead agency for spills which are presently considered as falling within another agency's jurisdiction. This may require making arrangements with other federal and territorial agencies to enable EPS to call upon them for technical assistance, if required.

7.2.2. - *Conclusion.* In order to effect this transfer and enable EPS to adequately respond to this increase in responsibility, a number of statute changes and administrative arrangements must be made.

7.2.2. - *Recommendation.* That the federal government pass legislation under Part IV of CEPA, and amend other federal statutes, to accommodate Environment Canada's role respecting spill response. This requires a number of initiatives:

- the promulgation of spill reporting regulations as required for applying section 57 of CEPA;
- a review of the government's ability to create regulations under section 54, and if required, the amendment of the Yukon Waters Act / NIWA to transfer the authority for responding to spills of waste (excluding normally regulated wastes in licenced waste discharge streams), from the Minister of Indian and Northern Affairs to the Minister of the Environment;
- a review of the government's ability to create regulations under section 54, and if required, the amendment of the Territorial Lands Act and regulations to transfer the authority for responding to spills, from the Minister of Indian and Northern Affairs to the Minister of the Environment;
- a review of the government's ability to create regulations under section 54, and if required, the amendment of the Fisheries Act to transfer the authority for responding to spills of a deleterious substance (s. 36: oils and chemicals) from the Minister of Fisheries and Oceans to the Minister of the Environment; and
- that Environment Canada define the level of environmental remediation expected during mitigation of a spill. This may include adopting a minimum standard for clean-up, or a maximum limit for resident contaminants in soil and water similar in fashion to that proposed by CCME (1991) for "Interim Environmental Quality Criteria for Contaminated Sites." That Environment Canada develop such remediation criteria into an environmental code of practice or guideline.

7.2.3. - *Conclusion.* It is no longer acceptable for governments to simply react to spills of substances which may endanger humans and the environment. Society demands that mechanisms must be in place to prevent these substances from spilling and that governments play a role in the prevention process, thus to protect public and environment. The different federal agencies have varying abilities to undertake a proactive role as mandated by legislation and supported by resources. Environment Canada has the strongest mandate in this regard, backed by the flexibility inherent in CEPA, its experience with respect to the Fisheries Act, and its enforcement and compliance policy.

7.2.3. - *Recommendation.* The Environmental Protection Service, having been assigned responsibility for spill response, assume a parallel responsibility and capability for spill prevention programming in the Yukon.

7.2.4. - *Conclusion.* In order that Environment Canada undertake a full preventative role, the federal government must change certain federal statutes and administrative jurisdictions.

7.2.4. - *Recommendation.* The federal government pass legislation pursuant to CEPA, and amend other federal statutes, as required, to allow for Environmental Protection Service's expanded role. This will require the following initiatives:

- the development of environmental codes of practice, as prescribed under section 8 of CEPA, for proper storage, transfer, or other means of handling of substances which may endanger humans or the environment if spilled;

- the development of environmental codes of practice for conducting risk assessments and creating spill contingency plans, including conditions under which contingency plans should be revised;
- the promulgation of regulations, as provided for in section 54(1), requiring that any work, undertaking, or business located on federal lands provide the Minister of the Environment with a spill contingency plan suitable to the Minister's requirements for such plans;
- that Environment Canada assess the adequacy of each plan received in respect to the above and either approve or return it for modifications; and
- a review of the government's ability to create regulations under section 54, and if required, the amendment of the Yukon Waters Act / NIWA, of the Territorial Lands Act and regulations, and of the Fisheries Act, to accommodate EPS's expanded role in spill prevention programs.

7.2.5. - *Conclusion.* YTG Protective Services Branch is unable to consistently perform mandated duties with respect to proactive inspections and spill response for operations on Crown lands. For spills occurring in the more remote areas of the Yukon, lead agency duties are often delegated back to EPS, or to another Territorial agency.

7.2.5. - *Recommendation.* Environment Canada (EPS) take over the responsibility for responding to spills of gasoline and associated products on federal Crown lands. This will require that:

- the government of Canada enter into an administrative agreement with the Territorial government for the transfer of such responsibilities;
- EPS adopt suitable codes or regulations for this role (preferably under CEPA);
- the federal government provide a means for EPS to enforce the codes and/or the regulations adopted either under CEPA, or by the Territorial government, or by other legislative or administrative means; and
- appropriate staff training be provided.

7.2.6. - *Conclusion.* This expanded role for Environmental Protection Services will place a strain on the agency's present staffing and technical capabilities. Other resources may become lacking due to the additional jurisdictional role EPS would have to take on.

7.2.6. - *Recommendation.* Environment Canada review the resources required to deliver a full spill prevention and response program under CEPA, in the context of delivery to the Yukon, and make improvements where necessary. Some of the main features of this review should include:

- a review of staffing requirements, and, if necessary the hiring of more staff;
- a review of the administrative ability to empower Resource Management Officers currently in DIAND's regional offices as first line field responders, for responding in the field as a representative of the Crown until EPS personnel arrive on the site of a spill situation, and implementing such a program. This arrangement would require providing RMO's with the same training EPS inspectors receive;
- a review of the CEPA Enforcement and Compliance Policy to ensure it covers the agency's larger role, and changes to the policy if necessary;
- a review of spill equipment and supply needs, including the location of equipment and supplies in strategic government offices around the Territory, and purchases of the same as required;
- a review of technical requirements for undertaking a preventative role and of the technical competence of present staff to undertake this role, and upgrading as necessary.

7.3. FEDERAL GOVERNMENT - EPS LEAD AGENCY UNDER MEMORANDUM

Other federal Ministries may not wish to relinquish power to the Department of the Environment under any permanent agreement. Thus, failing steps for the Parliamentary transfer of jurisdiction for spill programming from the different federal agencies to Environment Canada, other mechanisms may have to be employed.

7.3.1. - Conclusion. The present system of governmental response is inherently inefficient and is subject to inter-agency friction. Therefore there should be one agency which assumes prime responsibility, supported by others if necessary. Environment Canada remains as the ideal candidate to undertake the sole spill prevention, response, and remediation role for government in the Yukon Territory.

7.3.1. - Recommendation. The federal government transfer provisions for spill prevention, response, and remediation from other departments to Environment Canada, replete with full inspection and enforcement powers. Thus Environmental Protection Services of Environment Canada undertake the primary role for spill programs which are otherwise mandated to another federal agency. This may be accomplished by means of a Memorandum of Understanding with each of the other federal departments to transfer spill provisions to the Department of the Environment.

7.3.2. - Conclusion. Each of the pieces of federal legislation contain their own strengths and weaknesses respecting spills, discharges, or deposits of substances or waste. In order to bring about a common approach to spill prevention, response, and remediation,

changes will have to be made to those sections of the federal legislation transferred to the authority of the Department of the Environment.

7.3.3. - *Recommendation.* That the federal government amend the following pieces of legislation to enable a common response respecting spill prevention, response, and remediation:

- the Yukon Waters Act:
 - to require licensees to report imminent deposits;
 - to require immediate action by those responsible for a deposit to mitigate the environmental effects;
 - to designate minimum acceptable standards for spill clean-ups; and
 - to require the submission of spill contingency plans;
- the Territorial Lands Act and associated regulations:
 - to appoint and empower inspectors under the Act for the purposes of the Act and both (any) regulations;
 - to define inspector's powers respecting inspection of lands under lease, and to extend inspection, response, and direction-making privileges for mining lands (also requires revision of applicable mining statutes);
 - to provide environmental provisions under the Territorial Lands Regulations for spill prevention, spill reporting, and spill remediation (including minimum standards) on lease lands;
 - to strengthen similar provisions under the Territorial Land Use Regulations; and
 - to require a spill contingency plan (as applicable) under both sets of regulations; and
- that the federal government pass any other departmental statutes required for the transfer of such responsibilities to the Department of the Environment.

7.3.4. - *Conclusion.* The different pieces of legislation contain varying provisions for reporting, responding to, and investigating spills. Without developing common duties within the legislation, EPS will find it confusing to apply the various legislated duties in a coordinated fashion.

7.3.4. - *Recommendation.* The government of Canada, in consultation with the respective ministries should review the legislation relevant to this section with the intent of making legislative amendments which would accommodate a common approach to spill prevention, reporting, response, and investigation. This process should address:

- a requirement that unauthorized deposits of any amount of waste be reported as per section 9(3) of the Yukon Waters Act, or that a prescribed de minimus reporting standard be created as authorized under regulation (s. 33(1)(n));
- the promulgation of spill reporting requirements under section 33(1)(o) of the Yukon Waters Act (ie. format for reports);
- the promulgation of regulations for reporting spills and upsets under the Fisheries Act, and a requirement under the Act to report any deposit of a deleterious substance (s. 38(4));
- that Department of the Environment inspectors be given full investigative powers as provided to Fisheries Officers for the purposes of enforcing the Fisheries Act under the present Memorandum of Understanding.

7.3.5. - *Conclusion.* A commonality to this series of recommendations is that Environment Canada should take the lead role for prevention, response, and remediation of all spills which occur on federal lands. This will require administrative arrangements with the Yukon government which is presently responsible for gasoline handling within the Territory.

7.3.5. - *Recommendation.* Environmental Protection Services assume the role for prevention, response, and remediation of spills of gasoline and associated products on federal lands. That EPS adopt suitable codes or regulations for this role (i.e. refer to 7.2.5).

7.3.6. - *Conclusion.* EPS is presently tightly staffed and thus will require more staff and other resources in order to undertake a full program as indicated.

7.3.6. - *Recommendation.* Environment Canada review the resources required to meet an expanded mandate and make adjustments as required. Some considerations are:

- staffing levels;
- training in order to apply the various acts and regulations;
- the ability to empower Resource Management Officers (DIAND) as first responders, train these individuals similar to EPS inspectors, and provide them with spill clean-up supplies;
- development of an enforcement and compliance policy to cover this expanded role;
- a review of spill equipment and supply needs, and purchases as necessary.

7.4. FEDERAL GOVERNMENT - SAME FEDERAL ARRANGEMENT AS PRESENT

In the absence of cooperation among the federal Ministers to transfer any pollution provisions to the Minister of the Environment, the following recommendations are made under this section.

7.4.1. - Conclusion. Weaknesses in federal legislation regarding spills has been discussed. A common approach among the agencies is more likely reached if legislation is amended or created to provide for similar duties respecting spill prevention, reporting, and response.

7.4.1. - Recommendation. That the federal government amend the Yukon Waters Act, the Territorial Lands Act and regulations, and the Fisheries Act, and that the government promulgate appropriate regulations or otherwise make changes as recommended under section 7.3.3 and 7.3.4 of this chapter.

7.4.2. - Conclusion. The Protective Services Branch of the Yukon government cannot consistently perform its mandated duties respecting gasoline and associated products outside the Whitehorse district. EPS presently covers for YTG Protective Services (when requested) for spills which would normally fall under the jurisdiction of Protective Services. Environmental Protection Services, being a federal agency, regularly performs compliance monitoring for other substances (and sometimes informally for gasoline storage) on federal lands, and thus would appear to be the ideal candidate to assume this role on a permanent basis.

7.4.2. - *Recommendation.* Environmental Protection Services assume the role for prevention, response, and remediation of spills of gasoline and associated products on federal lands. That EPS adopt suitable codes or regulations for this role (i.e. refer to 7.2.5).

7.4.3. - *Conclusion.* The federal departments often mention a difficulty in meeting mandated duties due to shortages in staffing, equipment, or other resources. A number of improvements will have to be made and capabilities reviewed in order to deliver consistent spill programming in the Yukon.

7.4.3. - *Recommendation.* The federal government review each agency's capability to perform mandated duties for spill prevention, spill response, and spill remediation, and make adjustments as necessary. The following items provide a starting point for such a review:

- each agency should review staffing levels to ensure they are adequate for their spill mandate;
- each agency should review training, and upgrade staff qualifications as required (notably: enforcement training for DIAND);
- each agency should review their requirement for spill equipment and supplies, and purchase needed items;
- DIAND should develop enforcement and compliance policies for the Water Resources Division and the Lands Division;
- EPS should ensure their enforcement and compliance documentation is adequate for their new duties, and redraft their policy documentation as required.

7.5. OTHER MEASURES

There are a number of other measures which the federal (and territorial) governments should consider in order to improve spill prevention, response, and remediation systems in the Yukon.

7.5.1. - Conclusion. Environment Canada is mandated to provide technical assistance to industry that they may implement measures to protect the environment. The CEPA Enforcement and Compliance Policy promotes the transfer of information and technical assistance to private industry as an integral component of securing compliance under the law. Environment Canada, in the Yukon, is not ready for this role.

7.5.1. - Recommendation. Environment Canada (EPS) improve the technical skill of inspectors in the area of spill prevention and other areas related to safe life-cycle management of substances. That the agency provide guidance, leadership, and training to industry with respect to spill prevention, spill control, and contingency planning. That Environment Canada explore ways to work cooperatively, and to gain a working trust with Yukon industry in order to implement prevention programs.

7.5.2. - Conclusion. Unlike many southern jurisdictions, government in the Yukon does not have a formalized, fully equipped hazardous spills response team. Some responses may require equipment that neither the operator nor government has immediately available. Thus a delay may result before the spill can be adequately mitigated.

7.5.2. - *Recommendation.* Environment Canada review the need for a fully equipped hazardous spill response unit, and if required, assess the best means by which a spill response team may be created, either utilizing personnel internal to the agency or undertaking an inter-agency approach. The agency should additionally review means by which costs may be recovered for spill assistance from industry located on Crown lands.

7.5.3. - *Conclusion.* The deterrence value of any sanction is based upon the probability of detection and the likeliness of enforcement action and prosecution. Neither the federal agencies, nor the Yukon judiciary, appear to be sending a signal that the federal government is serious about enforcement of environmental legislation.

7.5.3. - *Recommendation.* The Canadian government should clarify its positions on enforcement, prosecution, and sentencing for environmental offences. The government should communicate its position publicly and through the various ministries. The federal government must provide fair, equitable enforcement of environmental laws.

7.5.4. - *Conclusion.* Section 36 of CEPA prescribes a duty to report a release of a toxic substance, subject to regulations not yet created for this purpose. Environment Canada in the Yukon believes it is critical to have these regulations in place in order to complete the agency's authority with respect to enforcing this section of the Act.

7.5.4. - *Recommendation.* The federal government promulgate spill reporting regulations for section 36 of CEPA.

7.6. INDUSTRY

Yukon industry also has a major responsibility for protecting the environment from accidents involving hazardous or toxic substances.

7.6.1. - Conclusion. Progressive corporations which undertake the initiative to review their operations and implement programs to prevent releases of substances, serve not only themselves and the security of the corporation by reducing a risk of accidental releases and thus a risk of a violation and ensuing prosecution, but also serve society, as these actions result in a decreased incidence of releases and thus contribute to public safety and environmental protection.

7.6.1. - Recommendation. Yukon industry adopt a progressive, preventative approach to business undertakings on Crown land (and elsewhere). That industry take an initiative and perform voluntary environmental audits to verify compliance with legislation and safe practices, undertake risk assessments, create spill contingency plans, and ensure a continuously high level of preparedness in case of spills of hazardous and toxic substances. That Yukon industry file spill contingency plans with the Department of the Environment / EPS and demand feedback from the department regarding such plans.

7.6.2. - Conclusion. Industry associations in southern Canada, especially in the petroleum sector, have access to industry spill response teams. No such formal arrangement is available in the Yukon for response on Crown lands.

7.6.2. - *Recommendation.* Although it may be difficult to share people and develop a team, industry should review the possibility of sharing resources for some specialized response or clean-up equipment and develop a means, within a working agreement, by which cost recovery may be implemented for damaged equipment or replacement of supplies.

7.7. OTHER RECOMMENDATIONS

7.7.1. - Conclusion. Yukon industry is frustrated by the multiplicity of agencies that industry must deal with on environmental matters. Industry calls for a true one window approach for regulation of environment pollutants, reducing the number of agencies involved, and thus streamlining industry - government interaction. A number of federal agencies presently undertake the same compliance monitoring of Yukon operations. This results in duplication of effort, government inefficiency, and higher monitoring costs. As well, there is a duality evident within DIAND, where a trade off may occur between environmental protection, and economic and northern development.

7.7.1. - Recommendation. The federal government should separate the powers to protect the environment from powers for resource allocation and development. Thus the environmental protection powers under the Yukon Waters Act and the Territorial Lands Act should be transferred by an act of Parliament to the Department of the Environment. The government of Canada should review other such streamlining of environmental and resource laws.

7.7.2. - Conclusion. Although the scope of this study was limited to Crown land situations, it may prove worthwhile to provide some recommendations for improving spill programming on Commissioner's lands. There is presently a gap in spill response coverage in the Yukon respecting Commissioner's lands: lands owned privately, by municipalities, or by the Territorial government. This gap in jurisdiction could result in potentially serious spills not being reported or adequately mitigated. The Yukon

government, although positioned via the process of devolution and through the Environment Act to play a role with respect to spill prevention, response, and remediation, does not have the infrastructure to support a full program. The government is, however, planning to expand capabilities in the environmental protection area. By undertaking a lead agency responsibility for spills on Commissioner's lands, a gap will be closed in spill programming, and the Yukon government will be able to assess the logic of pursuing future ambitions regarding devolution of power from the federal government.

7.7.2. - Recommendation. The Yukon government develop spill regulations under the Environment Act for jurisdiction on Commissioner's lands, and place sufficient trained staff in the field to perform required duties. That the (Yukon) Environmental Protection Branch interface with EPS to ensure that continuity is not broken with the federal program. That the Yukon Territorial Government monitor the Environmental Protection Branch's spill response capabilities as a component of the government's decision-making process for either taking on a larger responsibility through devolution, or alternately relinquishing responsibilities to the federal government.

7.7.3. - Conclusion. YTG Protective Services is unable to perform their mandate in the Territory. The Environmental Protection Branch is planning to hire Environmental Protection Officers, and to empower regional YTG Conservation Officers for environmental protection duties. This would enable the agency to monitor and inspect a large area of the Yukon.

7.7.3. - *Recommendation.* Because gasoline and allied products may cause considerable environmental damage if spilled, the Yukon government should consider transferring its responsibilities under the Gasoline Handling Act as well as any associated regulations, to Environmental Protection.

7.7.4. - *Conclusion.* Transportation of Dangerous Goods legislation is not being adequately enforced at the consignee/consignor level in the Yukon.

7.7.4. - *Recommendation.* That the federal government determine the importance of performing TDG inspections at the consignee/consignor level in the Yukon. If considered important, the federal government should provide funding to the Yukon government for inspections of this nature, or should transfer inspection powers and funding to the Department of the Environment.

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