

**STUDY TO DETERMINE HOW FEDERAL ESTABLISHMENTS IN ONTARIO
SHOULD CONTRACT THE REMOVAL/DISPOSAL
OF
HAZARDOUS WASTES**

**A REPORT FOR
ENVIRONMENT CANADA**

MACLAREN PLANSEARCH

APRIL 1987

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REMOVAL AND DISPOSAL OF HAZARDOUS WASTES
FROM FEDERAL ESTABLISHMENTS IN ONTARIO

1.0 Introduction

Recently, the Ontario Ministry of the Environment (MOE) amended the **General Regulation - Waste Management**, to enable the province to monitor liquid and industrial hazardous wastes from their point of generation, through to their ultimate disposal. The directive, commonly referred to as Regulation 309, placed responsibility for proper hazardous waste management with the generators, carriers, and receivers of such substances. The administration of the provincial waste management program was designed to be compatible with the federal Transportation of Dangerous Goods (TDG) Regulations. Therefore many of the documents required by the provincial regulation are also consistent with those of the federal TDG regulation (eg. Appendix B - Form 1 Manifest). In this report the responsibilities on handlers of waste, by these and other pieces of legislation are described (See Table 1.1).

The report covers the responsibilities of generators, carriers, and receivers under the different forms of legislation and outlines the penalties and liabilities when the regulations are not obeyed. The application of these responsibilities to the federal waste generating facilities within Ontario is outlined in the context of federal contracting options and feasibility scenarios. Finally, recommendations on the federal contracting procedure are made.

Legislation	Subject	Generator	Carrier	Receiver
Regulation 309	Waste Management	Yes	Yes	Yes
T.D.G. Regulations	Waste Transport	Yes	Yes	
E.P.A. – Part IX	Spills	Yes	Yes	Yes
PCB's Regulations	PCB Storage			Yes
ECA Regulations	Toxin Production	Yes		
Shipping Act	Transport Method		Yes	
Pesticides Act	Pesticides		Yes	Yes

Table 1.1

Federal and Provincial Legislation Regulating Generators, Receivers and Carriers of Hazardous Waste

2.0 Generator, Carrier, and Receiver Responsibilities

2.1 Generators

2.1.1 Generator Responsibilities Under Regulation 309

2.1.1.1 Registration As A Waste Generator Under Regulation 309

Since September 17, 1986, all generators of liquid industrial and hazardous waste must register with the Ontario Ministry of the Environment. The generator must evaluate the waste under the MOE guidelines and is responsible for the proper storage, processing, disposal, and transport of the hazardous waste originating from the generating facility. To determine if generator registration is required, the reader is referred to the Ministry of the Environment booklet entitled "Registration Guidance Manual for Generators of Liquid Industrial and Hazardous Wastes" dated July, 1985. This booklet also outlines a procedure to classify wastes according to its chemical or physical characteristics (eg. acid, non-halogenated organic solvent, its performance in the "slump" test, etc.) or by the primary process governing its use (eg. residues from steel processes, landfill leachate, etc.).

Responsibilities of the waste generator under Ontario Regulation 309 include:

- 1) All generators of hazardous waste in Ontario must register with the Director of the Waste Management Branch of the Ontario Ministry of the Environment (See Appendix B-Form 2 Generator Registration).

- 2) The information supplied in the waste generator form must be sufficiently detailed so as to satisfy the Director as to the nature of the waste. (eg. if benzene solvent is being described, specify benzene solvent instead of organic

solvent).

3) If there is any change in any of the information supplied in the form, then a supplementary Generator Registration Report must be sent to the Director within 15 days of the change occurring. This applies to changes of location, names of personnel, and types of wastes specified on the form.

4) Generators cannot transfer waste to a transportation system unless the generator possesses a generator registration document and waste number, both of which are cited on the manifest form.

5) Generator registration numbers and waste identification numbers must be used in all waste transactions.

6) Generators of waste must keep records (eg. manifest copies) of all waste transactions (eg. shipments, disposal, etc.) for two years after the transaction.

7) If waste is stored at the generating facility for longer than 3 months, then the details of the storage must be reported to the Director. The report must detail;

- a) name and waste number,
- b) quantity of waste involved,
- c) manner of storage,
- d) reasons for the retention of the waste, and
- e) time and manner of anticipated disposal.

8) Under the manifest system, a copy (#6 - brown copy) of the manifest form is returned to the generator once the carrier has transported the waste from the generator facility to the receiver (eg. disposal site). The copy is sent to the generator by the receiver once the transaction

is completed.

If the generator has not received copy #6 (brown copy) of the Manifest form within four weeks of the initiation of the transaction, then it is the responsibility of the generator to report to the Director. This procedure is designed to prevent improper hauling and disposal practices.

Out of province waste generators who transport or dispose of wastes within Ontario's borders must also register with the Ministry of the Environment. Under the regulation, carriers and receivers can only accept wastes from a generator who has obtained a MOE waste registration number.

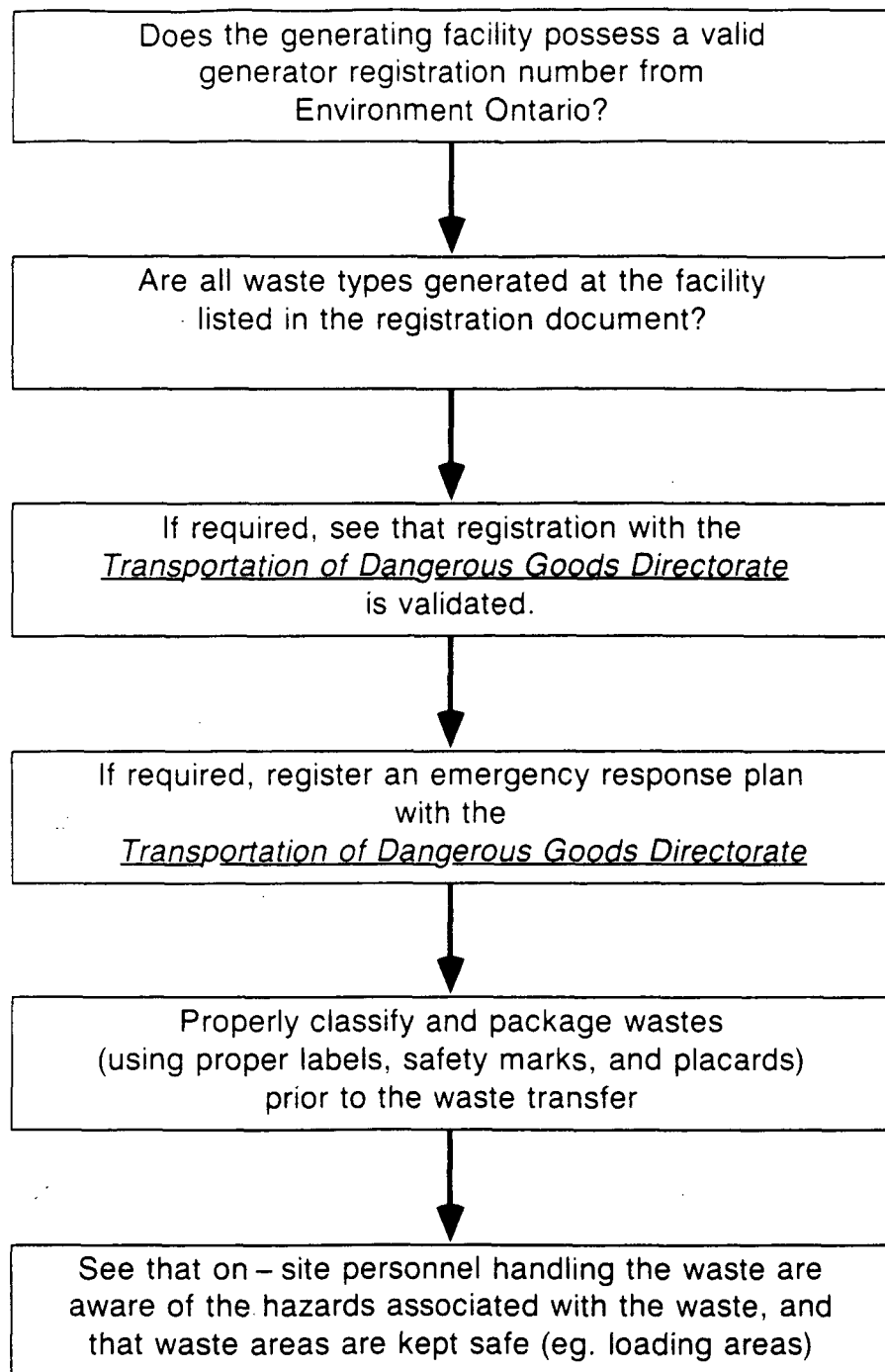


Figure 2.1
**Generator's Responsibilities to be Addressed
Prior to a Waste Transfer
Request**

2.1.1.2 Manifesting - Generator Requirements Under Regulation 309

The manifest form (Appendix B - Form 1) is the primary article of documentation used to maintain records of waste from the point of generation through to the ultimate disposal. In Ontario it is made up of 3 sections (the generator, carrier, and the receiver each have to fill out one section of the form) with 6 copies per manifest. When waste is transferred, each section of the manifest is filled out by the appropriate person and the copies of the manifest are distributed so as to document each step of the transfer (See Appendix A - Waste Manifesting).

When wastes are to be transported from the generator's facility, the responsibilities of the waste generator include:

- 1) The generator may only transfer wastes to a transporter operating under a Certificate of Approval.
- 2) The generator must complete Section A of the Manifest. To do this a generator registration number is required.
- 3) The waste must be packaged and labelled in such a way so as to meet the requirements specified by the Transportation of Dangerous Goods Regulations (Canada).

It is the responsibility of the Ministry of the Environment to:

- 1) Issue a generator registration document and a generator registration number upon receipt of a Generator Registration Report.
- 2) To maintain records of all transactions for at least two years.

2.1.2 Generator Responsibilities Under Transportation of Dangerous Goods Legislation

The **Dangerous Goods Transportation - General Regulation** (O.Reg. 363/85) under the **Dangerous Goods Transportation Act, 1981** (S.O. 1981, c.69) is essentially the same as the federal TDG Act and regulations, except for a few differences.

- . Ontario covers only on-road aspects (federal covers loading and unloading as well).

- . Ontario regulations do not have emergency provisions. This is covered by the **Environmental Protection Act (Part IX)**, or the "Spills Bill", instead.

- . Ontario regulations have dropped Part XIII of the federal regulation concerning the appointment of inspectors. Instead, it has defined the inspectorate appointments and powers in Section 9 of the Ontario (DGTA) act.

In this document any reference to the Transportation of Dangerous Goods Regulations will be to the federal regulations as they apply in Ontario. However, Ontario officials are responsible for the enforcement of Parts IV, V, and IX (documentation, safety markings, and safety requirements, such as driver training, respectively) of the TDG regulations.

There are many areas where the jurisdiction of one regulation overlaps with another regulation. In addition, there are many areas where the regulations do not have the proper jurisdiction and amendments to the present legislation are required. Indeed, the system outlined in this document is still quite new and many specifics of the system are yet to be worked out.

**Table 2.1 Nine Classes of Hazardous Goods Set Out In The Schedule
Of The**

Transportation Of Dangerous Goods Act

- | | |
|---------|---|
| Class 1 | Explosives, including explosives within the meaning of the <u>Explosives Act</u> , |
| Class 2 | Gases: compressed, deeply refrigerated, liquefied or dissolved under pressure, |
| Class 3 | Flammable and combustible liquids, |
| Class 4 | Flammable solids; substances liable to spontaneous combustion; substances that on contact with water emit flammable gases, |
| Class 5 | Oxidizing substances; organic peroxides, |
| Class 6 | Poisonous (toxic) and infectious substances |
| Class 7 | Radioactive materials and prescribed substances within the meaning of the <u>Atomic Energy Control Act</u> , |
| Class 8 | Corrosives |
| Class 9 | Miscellaneous products, substances or organisms considered by the Governor in Council to be dangerous to life, health, property or the environment when handled, offered for transport, or transported and prescribed to be included in this class. |

1) **Responsibility To Register As A Waste Generator:** The **Transportation of Dangerous Goods Regulations**, (SOR/85-585, SOR/85-609) specifies that Canadian generators of dangerous goods and hazardous wastes, listed in Schedule II, must register with the TDG Directorate in Ottawa before they can offer the substances for transport. In particular the generator must fill out Form 1 set out in Schedule IX of the federal regulations (see Appendix B - Form 3 TDG Registration) and send it to the Director-General of the Transport of Dangerous Goods Directorate, Department of Transport, Ottawa. The regulations apply to shipments of hazardous goods that are in bulk, or that exceed 500 kg. The regulations also apply to Canadian facilities importing hazardous substances.

2) **Responsibility To Properly Classify Wastes:** The TDG Act terms "dangerous goods" to mean "any product, substance, or organism included by its nature or by the regulations in any of the classes listed in the schedule (to the Act)". It is the responsibility of the generator (ie. the consignor of transport services) to properly classify the hazardous goods in accordance with the TDG schedule of substances. (See Table 2.1, however a complete list may be found in the federal TDG Regulations - Part III and Schedule II).

3) **Responsibility To Properly Document Wastes For Transport:** One of the major objectives of the TDG legislation is to ensure adequate substance identification and safety information on the goods is available when they are being transported. Therefore all transfers must be accompanied by a "shipping document" if they are goods, and a "waste manifest" if they are termed wastes. However the six-part manifest required to satisfy Regulation 309 also serves the Transportation of Dangerous Goods Act. (See

Appendix A - Waste Manifesting Procedure). If the wastes are crossing provincial borders, the federal TDG manifest form should be used instead of the Regulation 309 manifest.

4) Responsibility To Use Proper Safety Marks, Labels, Signs, and Placards When Wastes Are Transferred: There is a duty on any person handling, or offering for transport, dangerous goods to ensure proper safety marks, labels, signs and placards are used in each transfer.

- . Labels are used on packages, cylinders, and small containers.
- . Placards are used on large containers and on vehicles.
- . Signs may be used under certain circumstances to identify a specific hazard or risk. These signs are used for fumigation and oxygen depletion.
- . Other safety marks indicating proper transport or storage conditions may be included on the packaging (eg. storage temperature, etc.).

Part V and Schedule V of the TDG Regulations describe the proper markings required by each hazardous goods classification. The Ontario Dangerous Goods Transportation Regulations adopt the safety requirements, safety standards, and safety marks set out in the federal TDG Regulations.

5) Responsibility To Safely Package The Wastes: It is an offence for any person to handle or offer for transport dangerous goods unless certain safety requirements are met. These requirements are detailed in Part VII (Safety Requirements) of the federal TDG Regulations. The safety requirements are to ensure the goods are packaged in such a

way so that dangerous situations will not arise during transport or storage (eg. Hydrofluoric acid must not be stored in glass containers because it etches and weakens the glass). Some of these requirements are:

- A) Limits on the total amount of goods contained in any one package must be observed.
- B) Restrictions on the storage conditions of hazardous goods are applied when consumer goods are in the same area. This should not be a problem at most facilities.
- C) The packaging of the goods must be compatible with the chemical and physical nature of the goods. In addition, mixtures of reactive compounds that would result in an evolution of heat or gas cannot be packaged together. If the goods degrade or react when the temperature is altered, then there is a duty to see that the optimum temperature is maintained.

For more precise definitions of the packaging requirements of specific substances, are given in Schedule VIII of the federal TDG Regulations.

6) Responsibility To Develop Emergency Response Plan: The generator or consignor of the waste to be transported must file an emergency response plan outlining the assistance that can be provided in the event of an emergency. Only substances specified in Schedule XII of the TDG Regulations require an emergency response plan. Most wastes listed in Table 4.1 are exempted from this requirement. Contents of the plan should include:

- A) the name and address of the agent, if any handling the transaction,

- B) a brief description of the emergency response capability,
- C) certification that an emergency response capability exists,
- D) a brief outline describing how the plan can be activated,
- E) the name, address, telephone number, function and signature of the person submitting the summary of the plan, and
- F) the name of the person on whose behalf the summary of a plan is filed.

The plan is filed with the Director General, who assigns a reference number to the plan. The person who filed the plan is notified of the reference number.

Under the TDG Regulations some special conditions may arise;

- A) a waste manifest is not required if the consignment is less than 5 kg. of solid waste or 5 L. of liquid waste.
- B) in completing the waste manifest a consignor must indicate the word "waste" or its French equivalent within the shipping name.
- C) waste transport vehicles must be cleaned or purged of all residues after transfer to the receiver or the waste manifest must state the contents of the last consignment.

2.1.3 Environmental Protection Act - Part IX (Spills Bill)

The Ontario Dangerous Goods Transportation Act, 1981 and the federal Transportation of Dangerous Goods Regulations, require some provisions for emergency action to be provided by the generator, carrier, or receiver, in the case of accidental spills of hazardous goods. In addition, there has been a duty on certain persons to notify the Ministry of the Environment in the event of these spills.

The proclamation of Part IX (Spills Bill) to the Ontario Environmental Protection Act on November 29, 1985 expands the category of persons responsible for notifying the Ministry and the circumstances under which notification must be given. The bill also imposes much broader duties to clean up spills and restore the natural environment. This duty is imposed on the owner of the spilled substance and the person having control of the pollutant directly before it was spilled.

If the pollutant is in the possession of the generator at the time of the spill, then the generator has the:

- 1) **Duty to immediately notify**, the Ministry, the municipality, the owner of the pollutant, and the controller of the pollutant, as to the circumstances of the spill, the action taken and intends to take. This applies to every person having control of a pollutant that is spilled and every person who spills or causes or permits a spill of a pollutant that is likely to cause harm to the natural environment or cause personal harm or discomfort.

- 2) **Duty to act** and do everything practicable to prevent, eliminate, and ameliorate any adverse effects that might be caused by the spill and to restore the natural environment.

2.1.4 Waste Management - PCBs Regulation (Reg. 11/82)

The Waste Management - PCBs Regulation (Reg. 11/82) under the Ontario Environmental Protection Act sets specific requirements on handlers of PCBs. It is aimed at storage facilities, however if the generator of PCB waste has an on-site storage facility then the regulations demand the generator to take on a number of responsibilities. These are listed in Section 2.3.3 - Receiver Responsibilities.

2.1.5 Environmental Contaminants Act and Regulations

The Environmental Contaminants Act (S.C. 1974-75-76, c. 72) allows the government access to information detailing production, storage, usage, and disposal of some selected hazardous substances. Presently the list of substances includes chlorobiphenyls, chlorofluorocarbons, mirex, PCB wastes, polybrominated biphenyls, and polychlorinated terphenyls. However, information on other substances can be requested through an announcement in the Canada Gazette. Therefore, there is a duty upon the generator of any of these substances to notify the Department of Environment of their usage, and to maintain records of their production, storage, transport, and disposal.

The Act also allows for the appointment of inspectors with powers to search and seize evidence if necessary. It is an offence contravene the requirements of the Act. Presently, there are seven regulations and one guideline limiting the use of certain substances under the Act. They are:

- 1) Chlorobiphenyl Regulations No. 1 (C.R.C. 1978, c.564):
This regulation itemizes areas where the substances can not be used (eg. food processing facilities)

2) **Chlorobiphenyl Regulations No. 2 (Product) (SOR/85-406):** This regulation lists the maximum permissible concentration of the substance to be allowed in certain electrical and mechanical products.

3) **Chlorobiphenyl Regulations No. 3 (Release) (SOR/85-407):** This regulation details the maximum permissible concentration and quantity of the substance that can be released into the environment (eg. such as with road oiling operations).

4) **Chlorofluorocarbon Regulations (SOR/80-254):** This regulation details the law against importing and manufacturing these substances.

5) **Mirex Regulations (SOR/78-891):** This regulation makes it illegal to import or manufacture mirex in Canada.

6) **Polybrominated Biphenyls Regulations (SOR/79-351):** This regulation makes it illegal to import or manufacture polybrominated biphenyls in Canada.

7) **Polychlorinated Terphenyl Regulations (SOR/79-369):** This regulation makes it illegal to import or manufacture polychlorinated terphenyls in Canada.

8) **Guidelines for the Management of PCB Wastes** details storage, transportation, and disposal requirements for PCB wastes. The guidelines are very specific and detail the handling of different types of PCB wastes, such as capacitors and transformers.

If a substance is controlled under the **Environmental Contaminant Act**, and it is in quantities less than that permitted by the Act, then it is exempted from the federal TDGA.

2.2 Carrier Requirements

2.2.1 Carrier Responsibilities Under Regulation 309

The responsibilities of the carrier (ie. transporter) under Regulation 309 include:

- 1) The carrier must have a Certificate of Approval, or a provisional Certificate of Approval.
- 2) The carrier must complete Section B of the Manifest (see Appendix B - Form 1) and retain it during the transfer of the waste.
- 3) The carrier must only transport the wastes to the receiver specified in Section C of the Manifest form.
- 4) The carrier can only transfer wastes to a disposal site, or secondary transportation system, operating under a Certificate of Approval.
- 5) If the waste is being transported to a facility outside of Ontario, then there is a duty on the part of the carrier to have the intended receiver complete Section C (receiver) of the manifest, and to have the manifest forms properly distributed.

The carrier also supplies the manifests required for waste transactions. He is responsible for notifying the Ministry of the Environment of the identification numbers of any forms which are mutilated or unusable.

2.2.2 Responsibilities Of The Carrier Under The Dangerous Goods Transportation Regulation

Specific responsibilities applied to carriers of hazardous waste under the Dangerous Goods Transportation Regulations include:

1) **Responsibility To Properly Train Carriers:** For any person to handle, offer for transport, or transport dangerous goods they must be trained or operating under the supervision of a trained person. A person is defined as a "trained person" when,

A) his employer is satisfied the person has received adequate training in the handling and transport of a specific waste and has issued a Certificate of Training to the employee, or

B) he holds a valid certificate or licence recognized under another piece of legislation, such as the Atomic Energy Control Act, and the licence is applicable to the type of goods being transported.

If the employer grants a Certificate of Training, it must indicate the dates of the training courses, and the specific aspects of the training course. In particular, the training must be directly related to the type of goods the person is expected to handle or transport. A certificate issued by the employer is valid for 36 months after the date of the training course. In addition, the employer must retain a copy of the Certificate of Training for at least two years after the expiry of the certificate.

Responsibility To Notify Officials In The Event Of A Dangerous Occurance: In the event of a "dangerous occurrence" such as an accidental spill of hazardous waste,

certain government officials must be notified immediately. The person in charge of the goods at the time of the accident is responsible for this duty. In Ontario, the Spills Action Centre should be notified immediately after the accident has occurred and can be reached at 1-800-268-6000 or (416) 965-9619. They will provide technical help in the clean-up and assessment of the spill hazard.

Responsibility To Assist Inspectors: The Ontario Dangerous Goods Transportation Act - General Regulations did not adopt Part XIII of the federal TDG dealing with the appointment of inspectors. Instead, the Section 9 of the Ontario DGTA specifies the designation of inspectors and their duties.

The designated official is issued a certificate which he must show when inspecting goods. During an inspection the official has the power to;

- A) stop at any a time, a vehicle for inspection,
- B) take samples of the goods,
- C) examine and make copies of shipping records.

In addition, the controller of the goods must provide reasonable assistance to the inspector.

2.2.3 Environmental Protection Act - Part IX (Spills Bill)

The Ontario Dangerous Goods Transportation Act, 1981 and the federal Transportation of Dangerous Goods Regulations, require some provisions for emergency action to be provided by the carrier in the case of accidental spills of hazardous goods. In addition, there has been a duty on certain persons to notify the Ministry of the Environment in the event of these spills.

The proclamation of Part IX (Spills Bill) to the Ontario Environmental Protection Act on November 29, 1985 expands the category of persons responsible for notifying the Ministry and the circumstances under which notification must be given. The bill also imposes much broader duties to clean up spills and restore the natural environment. This duty is imposed on the owner of the spilled substance and the person having control of the pollutant directly before it was spilled.

If the pollutant is in the possession of the carrier at the time of the spill, then the carrier has the:

- 1) **Duty to immediately notify**, the Ministry, the municipality, the owner of the pollutant, and the controller of the pollutant, as to the circumstances of the spill, the action taken and intends to take. This applies to every person having control of a pollutant that is spilled and every person who spills or causes or permits a spill of a pollutant that is likely to cause harm to the natural environment or cause personal harm or discomfort.
- 2) **Duty to act** and do everything practicable to prevent, eliminate, and ameliorate any adverse effects that might be caused by the spill and to restore the natural environment.

2.2.4 Canada Shipping Act and Regulations

The **Canada Shipping Act** sets provisions for regulations to prevent improper polluting practices while at sea or upon the Great Lakes. It provides for:

- 1) **Restrictions on the type of wastes that can be ejected** (eg. sewage, oils, and smoke).

- 2) The appointment of inspectors and details their powers.
- 3) The setting of penalties and liabilities in cases where the Act has not been followed.

There is a duty on the part of the carrier to abide by the regulation under the Shipping Act. The nature of these regulations is very technical and usually requires a knowledge of maritime shipping. The regulations applicable under this Act to the transport of hazardous substances include:

- 1) Pollutant Substances Regulation (C.R.C. 1978, c. 1458) (P.S.R.). Under this regulation the maritime carrier must not discharge any of the pollutants listed in Schedule 1 of the P.S.R. unless it is to save the ship and its crew from damage or loss of life respectively.
- 2) Oil Pollution Prevention Regulations (C.R.C. 1978, c. 1454) (O.P.P.R.). This regulation is designed to set standards to limit the amounts of oil a ship may emit when acting as a carrier. There is also a duty to report any accidental discharges to the nearest pollution prevention officer.
- 3) Great Lakes Sewage Pollution Prevention Regulations (C.R.C. 1978, c. 1429) (G.L.S.R.). This regulation sets standards, designed to limit sewage disposal within the Great Lakes.

2.3 Receiver Responsibilities

2.3.1 Responsibilities Of The Receiver Under Regulation 309

The responsibilities of the receiver under Regulation 309 under Regulation 309 include:

- 1) The receiver must possess a Certificate of Approval to accept wastes within Ontario.
- 2) The receiver must operate the disposal site within the specifications imposed by the Certificate of Approval (eg. the type of waste that can be accepted, regular groundwater analyses, training of personnel, etc.)
- 3) The receiver must obtain the remaining four copies of the waste manifest from the carrier, and complete Section C (Receiver) of the form. He must then;
 - A) remove Copy 3 (yellow) of the manifest and transfer it to the Director within three working days after the waste transfer,
 - B) remove Copy 4 (pink) of the form and return it to the carrier,
 - C) retain Copy 5 (blue) of the form for two years, and
 - D) remove Copy 6 (brown) of the form and return it to the generator within three working days after the waste transfer.
- 4) If the receiver refuses to accept the waste, he must prepare a refusal report indicating the manifest form identification number, the generator registration number,

the carrier number, and the reason for refusing the waste. This report must be sent to the Director within three days after the refusal.

5) The receiver must maintain the disposal site up to a level of standards. (These standards are defined in Sections 8, 9, 10, and 11 of the Regulation.) They outline a code for good disposal practice (eg. provision of access roads, siting requirements etc.). These standards may be further detailed on the Certificate of Approval.

2.3.2 Receiver Responsibilities Under The Transportation Of Dangerous Goods Regulations

The responsibilities of the receiver of the wastes under the Transportation of Dangerous Goods Regulations include:

1) The receiver must complete and sign Part C of the TDG waste Manifest form.

2) The receiver must send copies of the completed manifest form to;

A) the regional government authority,

B) the generator of the wastes, and

C) the carrier of the wastes,

within two working days of the waste transfer.

2.3.3 Responsibilities Of The Receiver Under The Waste Management - PCBs Regulation

The Waste Management - Waste Regulation (O. Reg. 11/82) under the Environmental Protection Act sets specific requirements on handlers of PCBs. The regulation is aimed at receivers and storage facilities of PCBs and PCB-related wastes. The responsibilities of the site operator include:

- 1) The operator must keep records of the amounts, dates, location, method of transport and storage, and nature of the PCB waste entering and leaving the facility.
- 2) The operator of the site must report this information to the Ministry of the Environment (eg. Director of the Regional office) by telephone immediately, and in writing within three days after waste is first received.
- 3) The site operator must maintain the records for two years after the he has ceased to be a holder of PCB waste.
- 4) All sites must hold a valid Certificate of Approval (specifically applicable to PCB wastes) in order to dispose of, decontaminate, or otherwise manage or dilute liquid PCB wastes. In some special cases, facilities may operate under written instructions of the Director of the Ministry of the Environment. (A Certificate of Approval usually lists a number of requirements to be met by the site operator. This often includes storage methodology and groundwater testing. It is done on a site by site basis and the terms of the Certificate will vary depending on the application.)
- 5) Storage of the PCB wastes must be done in a safe and secure location, such that any escaping waste can be readily recovered and will not affect any watercourse or groundwater

system.

2.3.4 Responsibilities Of The Receiver Under The Environmental Protection Act - Part IX (Spills Bill)

The proclamation of Part IX (Spills Bill) to the Ontario Environmental Protection Act on November 29, 1985 expands the category of persons responsible for notifying the Ministry and the circumstances under which notification must be given. The bill also imposes much broader duties to clean up spills and restore the natural environment. This duty is imposed on the owner of the spilled substance and the person having control of the pollutant directly before it was spilled.

If the pollutant is in the possession of the receiver at the time of the spill, then the receiver has the:

- 1) **Duty to immediately notify**, the Ministry, the municipality, the owner of the pollutant, and the controller of the pollutant, as to the circumstances of the spill, the action taken and intends to take. This applies to every person having control of a pollutant that is spilled and every person who spills or causes or permits a spill of a pollutant that is likely to cause harm to the natural environment or cause personal harm or discomfort.
- 2) **Duty to act** and do everything practicable to prevent, eliminate, and ameliorate any adverse effects that might be caused by the spill and to restore the natural environment.

2.3.5 Receiver Requirements Under The Federal Environmental Contaminants Act and Regulations

The **Environmental Contaminants Act (S.C. 1974-75-76, c. 72)** allows the government access to information detailing production, storage, usage, and disposal of some selected hazardous substances. Presently the list of substances includes chlorobiphenyls, chlorofluorocarbons, mirex, PCB wastes, polybrominated biphenyls, and polychlorinated terphenyls. However, information on other substances can be requested through an announcement in the Canada Gazette. Therefore, there is a duty upon the generator of any of these substances to notify the Department of Environment of their usage, and to maintain records of their production, storage, transport, and disposal.

The Act also allows for the appointment of inspectors with powers to search and seize evidence if necessary. It is an offence to contravene the requirements of the Act. Presently, there are seven regulations and one guideline limiting the use of certain substances under the Act. (They are listed in Section 2.1.5-Generator Requirements Under The Environmental Contaminants Act.)

The **Guidelines for the Management of PCB Wastes** detail the storage, transportation, and disposal requirements for PCB wastes. The guidelines are very specific and detail the handling of different types of PCB wastes, such as capacitors and transformers.

If a substance is controlled under the **Environmental Contaminant Act**, and it is in quantities less than that permitted by the Act, then it is exempted from the federal **Transportation of Dangerous Goods Act**.

2.4 Exempted Hazardous Wastes

2.4.1 Wastes Exempted From The Provisions Of Regulation 309

Some wastes are exempted from the terms of the Regulation 309. These exempted wastes include;

- 1) sewage sludge from municipally owned sewage works,
- 2) hauled sewage from cesspools, septic tanks, etc.
- 3) domestic wastes generated by households,
- 4) incinerator ash resulting from the incineration of domestic wastes,
- 5) asbestos wastes resulting from the removal of asbestos-containing construction or insulation materials,
- 6) food processing wastes resulting from the packaging, preserving, and restaurant food operations, and
- 7) PCB wastes that are controlled under special provisions.

However, it is important to note that waste resulting from the servicing of a motor vehicle at a retail motor vehicle service station or service facility may be exempted under special agreement with the MOE. Many of the federal facilities have wastes of a similar nature and may be administered under this provision.

There are also exemptions for small quantities of wastes. The actual amounts depend on the type of waste. These are listed in Table 2.2.

2.4.2 Wastes Exempted From The TDG Regulations

The registration of wastes under the **Transportation of Dangerous Goods Regulations**, (SOR/85-585, SOR/85-609) only applies to those substances listed in Schedule II of the Regulations. There are some classifications applied strictly for wastes (ie. See Waste Types 1 - 98 in the Regulations).

The Act does not apply to the handling, offering for transport or transporting of dangerous goods under the control of the Minister of National Defence. This includes dangerous goods owned and operated by the Department of National Defence or operated on behalf of the Department of National Defence. Generally, this applies to military equipment in transport. However, wastes leaving the jurisdiction of Department of National Defence, such as lubricants destined for storage or destruction at a private facility, must abide by the TDG Regulations. Other exempted classes include:

- 1) Transportation of oils and gas by pipeline.
- 2) Bulk shipment of goods by vessels within the meaning of the **Canada Shipping Act**.
- 3) Special cases where the transport of goods is deemed necessary by the Minister of Transport for the protection of life or property. The transporter is issued a "permit for exception".
- 4) Special cases where a "permit for an equivalent level of safety" is granted.

The Governor in Council may designate certain substances exempt from the TDG Regulations, however these substances must first be published in the Canada Gazette.

Table 2.2 SMALL QUANTITY EXEMPTION CRITERIA FOR REGULATION 309

WASTE	QUANTITY (kg./mo.)	EMPTY CONTAINER SIZE (litres)	TOTAL WEIGHT OF EMPTY LINER (kg./mo.)	SPILL (kg. spilled)
Schedule 1	5	*	*	5
Schedule 2(A)	1	20	10	1
Schedule 2(B)	5	*	*	5
Schedule 3	0	0	0	0
Corrosive	5	*	*	5
Ignitable	5	*	*	5
Leachate				
Toxic	5	*	*	5
Pathological	0	0	0	0
Reactive	5	*	*	5
Liquid	25	*	*	*
Industrial	(litres)			
PCBs	***	***	***	***
Other	25**	*	*	*
Registrable				
Solids				

* All sizes and amounts are considered non - hazardous

** All quantities of other registrable solids are considered non - hazardous. Amounts generated / accumulated greater than 25 kg./mo. must be registered.

*** Consult the Ministry of the Environment information bulletin on PCB wastes.

(Taken from Handle With Caution, by David Estrin, Carswell Publishing, Toronto, 1986, p.42)

2.5 Other Relevant Legislation

Under the **Canada Labour Code**, the employer has a general duty to ensure that the safety and health at work of every person employed by him is protected. This may require the employer to provide adequate safety equipment (eg. breathing apparatus) to employees handling waste within the generating facilities. There is a duty on the part of all employees to use the provided safety materials. However, the employee has the right to refuse work if he has reasonable cause to believe the conditions or area is unsafe. There is also a duty on every person at the facility to assist certified safety officer (eg. Labour Canada Inspector). If a person contravenes any of these parts of the Canada Labour Code he is liable to a fine not exceeding \$25,000.

In Ontario, the **General Regulation - Air Pollution** (O.Reg. 308/80) details requirements for a Certificate of Approval (Air) for facilities emitting air pollutants. These Regulations are currently under revision. In addition, the **Mobile PCB Destruction Facilities Regulation** (O.Reg. 148/86) specify the technological and siting standards for the destruction of PCBs in Ontario.

The **Ontario Waste Management Corporation Act** (S.O. 1981, c.21) establishes a crown corporation with provisions for a facility to receive, treat and/or dispose of hazardous waste. In effect, the corporation acts as a private company.

The **Pesticides Act** (R.S.O.1980, c.376, as amended) and its regulations cover the handling, storage, use, transportation, classification and disposal of pesticides. The Act makes provisions for the licencing of pesticide applicators. Penalties for non-compliance are also detailed.

3.0 Penalties, Financial Conditions, and Liabilities

3.1 Penalties, Financial Conditions, and Liabilities Under the Ontario Environmental Protection Act

3.1.1 Penalties Under The Environmental Protection Act And Regulations

Failure to carry out a duty imposed by **Environmental Protection Act (Part IX)** or the "Spills Bill" is an offence to which the EPA general penalty provision applies. Under this provision penalties may be levied against any person, whether a principal, agent, or employee, that commits an offence, or fails to comply with the terms of the Certificate of Approval or ministerial order. The maximum fine on a first offence is \$5,000 and on each subsequent conviction not more than \$10,000 can be levied for each day the offence occurs.

Increased fines are applied when hazardous or liquid industrial waste spills are involved. The minimum fine in this case is \$2,000 and not more than \$25,000 for the first offence, and \$4,000 and \$50,000 respectively for each subsequent offence. Other penalties apply specifically to carriers of hazardous waste.

The limitation period for such offenses is two years from the time the offence was supposed to have occurred. If proceedings have not commenced by that time, then the case cannot be litigated.

If the generator, carrier, or receiver fails to manage hazardous and liquid industrial wastes according to the **Waste Management-General Regulation (Reg. 309)** then they are subject to fines. In particular, the wastes must be properly classified, documented, transported, and disposed within the provisions set out by the

regulation. If a failure to abide by the regulation results in:

- 1) impairment to the quality of the natural environment or any use that can be made of it,
- 2) injury or damage to property or to plant and animal life,
- 3) harm or material discomfort to any person,
- 4) an adverse effect on the health of any person,
- 5) impairment of the safety of any person,
- 6) rendering any property or plant or animal life unfit for use by man,
- 7) loss of enjoyment of normal use of property, or
- 8) interference with the normal conduct of business,

then they are liable to a minimum fine of \$2,000 and a maximum fine of \$25,000 for the first offence. A second offence brings a minimum fine of \$4,000 and a maximum of \$50,000 for every day the offence continues. However, a fine may only be applied if the court is satisfied the accused had been notified, before entering a plea, that a penalty would be sought under these provisions.

If a person contravenes the **Waste Management - PCBs Regulation (Reg. 11/82)** under the **Environmental Protection Act**, then he is subject to a maximum \$100,000 fine on summary conviction, or two years in prison if convicted upon indictment. The limitation period of summary convictions is one year after the date of the offence.

3.1.2 Financial Conditions Under the Environmental Protection Act

Under the **Environmental Protection Act** an applicant for a Certificate of Approval for a waste management system or a waste disposal site may be required to deposit a sum of money, furnish a surety bond, or furnish personal sureties. This provision is to assure satisfactory operation and maintenance of the facility, or allow the removal of wastes from the facility if the Director of the Ministry considers actions are required.

Therefore, if waste is disposed on site at a federal facility, a certificate of approval will be required from the Ministry of the Environment. A monetary deposit may also be required to assure proper waste management practices are maintained. The terms and amounts of the deposit are determined by the Ministry and take into account the costs of a clean-up of the facility. In addition, the documentation required for such an operation must be more extensive than the waste manifest forms.

3.1.3 Liability and Compensation Under The Environmental Protection Act

Generally, Environmental Protection Act prohibitions are strict liability offenses. However, in two cases absolute liability is created. These relate to:

- 1) any case where the hazardous waste management system has been used outside the terms of the Certificate of Approval, and
- 2) where a facility has been used to treat or dispose hazardous waste without a Certificate of Approval.

The proclamation of Part IX (Spills Bill) to the Ontario Environmental Protection Act on November 29, 1985 expands the category of persons responsible for notifying the Ministry and the circumstances under which notification must be given. The bill also imposes much broader duties to clean up spills and restore the natural environment. This duty is imposed on the owner of the spilled substance and the person having control of the pollutant directly before it was spilled.

In many ways the Spills Bill and the Spills Regulation are the pieces of legislation that set out the liabilities and insurance required by the waste generators, carriers, and receivers. Although the TDG and the Waste Management Regulations set out the proper method of managing and transferring waste, the Spills Bill sets out the duties and penalties imposed upon the individuals when hazardous wastes are not properly managed and an environmentally harmful accident occurs. The difference between this and previous legislation, is that the Spills Bill does not only provide for the accidents occurring during hazardous goods transport, but also when the substances are located on the generator's or receiver's facilities. In effect, it provides for the occurrence of spills anywhere within Ontario.

Part IX of the Environmental Protection Act has attempted to create civil liability in respect of contaminant spills. If there is an unscheduled release of a hazardous contaminant into the environment, the Minister or Director representing the Ministry of the Environment are authorized to give owners and operators direct orders following the spill. If the Ministry does have to step in to correct the action, then the Minister has the right to sue to recover the cost of clean-up. In particular, Section 87 provides a right of compensation to private persons in respect of specified loss, damage, or expense to be recovered from the owner of the contaminant or the person having control of the pollutant at the time of the spill.

If the loss or damage incurred is a direct result of neglect or default of the owner or the person having control of the pollutant at the time of the spill, then the person responsible has **absolute** liability. In this case it is the responsibility of the owner or controller of a pollutant, or the Ministry if necessary, to do everything **practicable** to:

- 1) prevent, eliminate and ameliorate the adverse effects of a spill, or
- 2) to do everything practical to restore the natural environment, or both.

In effect, the owner or controller of the contaminant has absolute liability in respect of clean-up costs, including restoration and amelioration costs for governments and private persons carrying out these activities.

The owners and controllers of a pollutant may face **strict** as opposed to **absolute** liability for events leading to loss or damage incurred as a result of a spill. In this case **loss or damage** is defined to include not only personal injury, loss of life, and loss of use or enjoyment, but also pecuniary loss, including loss of income.

However there are a number of defenses provided for the owners/controllers to preclude strict liability. These defences are:

- 1) they took all reasonable steps to prevent the spill, or
- 2) the spill was wholly caused by;
 - a) an act of war, civil war, insurrection, terrorism or hostility by a foreign government,

- b) a natural phenomenon of exceptional, inevitable, and irresistible character, or
- c) an act or omission with intent to cause harm by another person, or any combination of the above.

The Spills Bill also served to establish the Environmental Compensation Corporation (ECC). The ECC is designed to provide immediate relief to victims of such accidents and to undertake remedial measures if the polluter is unable or unwilling to act. The conditions under which compensation will be granted to applicants from the Environmental Compensation Corporation are specified in the Spills Regulation (O. Reg. 618/85).

3.2 Penalties, Financial Conditions, and Liabilities Under the Transportation Of Dangerous Act

3.2.1 Penalties Under The Transportation Of Dangerous Goods Act And Regulations

If the general duties prescribed under the TDG Regulations are not obeyed two types of penalties can be levied:

- 1) a maximum fine of \$50,000 for a first offence, and a maximum of \$100,000 on subsequent offences, or
- 2) on conviction on indictment, to imprisonment for terms not exceeding 2 years.

Minor offences may be penalized with a maximum fine of \$10,000 on summary conviction, or upon indictment, to imprisonment for up to one year. In addition property may be seized upon conviction.

The limitation period for instituting prosecutions is two years. No person is guilty of an offence under the Act if he establishes

that he took all reasonable measures to comply with the regulations.

3.2.2 Financial Conditions Under The Transportation Of Dangerous Goods Act and Regulations

The federal Minister of Transport may require any person who handles or transports hazardous goods to provide evidence of financial responsibility. This evidence may be in the form of insurance or an indemnity bond.

3.2.3 Liability and Compensation Under The Transportation Of Dangerous Goods Act and Regulations

The Act does not create any new statutory causes of action for the benefit of individuals, or for the creation of a statutory compensation fund. However the Act does allow for the creation of civil liability in respect of the federal government. Therefore the Crown may recover costs and expenses incurred in carrying out their duties, such as;

- 1) carrying out emergency response plans during an accident
- 2) taking appropriate actions when goods have been abandoned or appear to be in danger, or
- 3) turning back goods originating outside of Canada when the Act has not been complied with.

3.3 Liability And Compensation Under The Shipping Act

The Shipping Act also sets out provisions for civil liability for cases resulting from the discharge of a pollutant from a ship. It outlines the costs which may be recovered from the owner of a ship in the event of a civil action resulting from an accidental discharge of hazardous pollutants. It also allows the crown to seize a ship if it is deemed necessary to prevent a discharge of a pollutant.

4.0 Federal Facilities, Quantities of Waste Generated, and Classification of Wastes

Table 4.1 lists the federal establishments presently registered as waste generators within Ontario, but outside the National Capital Region. Although it is not complete, the list contains all the information regarding the facilities known at this time. The Ministry of the Environment classification number is based on second-hand information and should not be used as is. Instead, the user should refer to the original documents provided by the facility.

Table 4.1 Federal Facilities, Quantities of Waste, and their Classifications

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
1	Transport Canada (Coast Guard)	Sault Ste. Marie	Lubricants Crankcase oil	19800	Vehicle/Boat Maintenance	252
2	Transport Canada (Coast Guard)	Parry Sound	Lubricants Crankcase oil	192000	Vehicle/Boat Maintenance	252
3	Transport Canada (Coast Guard)	Amherstberg	Lubricants Crankcase oil	26400	Vehicle/Boat Maintenance	252
4	Transport Canada (Coast Guard)	Prescott	Lubricants Crankcase oil	570000	Vehicle/Boat Maintenance	252
5	Transport Canada (Coast Guard)	Thunder Bay	Lubricants Crankcase oil	1200	Vehicle/Boat Maintenance	252
6	Environment Canada	Honey Harbour	Lubricants Crankcase oil	2208	Vehicle Maintenance	252
7	Environment Canada Trent-Severn Waterways	Campbellford	Lubricants Crankcase oil	456	Bridges/Dams Maintenance	252

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
8	Environment Canada Trent-Severn Waterways	Kirkfield	Lubricants Crankcase oil	288	Vehicle Maintenance	252
9	Environment Canada Trent-Severn Waterways	Peterborough	Others	2180	Machine oil Paint Stripper varsol, cleaners	253 213
10	Environment Canada Rideau Canal	Smiths Falls (Northern)	Others	375	Paint thinner	213
11	Environment Canada Rideau Canal	Smiths Falls (Central)	Waste, Paints Sludge	1500	Paint thinner sludge	213 145
12	Environment Canada Rideau Canal	Smiths Falls (Mainten. Shop)	Others	230	Paints Preservatives	213
13	Environment Canada Rideau Canal	Elgin	Waste, Paints Sludge	850	Paint thinner sludge	213 145
14	Environment Canada Parks	Essex	Lubricants Crankcase oil	550	Vehicle Maintenance	252

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
15	Environment Canada Parks	Sault Ste. Marie	Lubricants Crankcase oil	410	Vehicle Maintenance	252
16	Environment Canada Parks	Pukaswa	Lubricants Crankcase oil	120	Vehicle Maintenance	252
17	Canada Centre for Inland Waters (DOE)	Burlington	Acids	720	Lab. processes	113
			Contam'd glass	720		
			solvents	10800	non-halo aromatics	211
			solvents	5400	non-halo aliphatics	212
			waste paint and sludge	120		213
			solvents	9600	halogenated -lab.	241
			petrol	1200	waste oils etc.	251
			lubricants	4800	machine shop	263
			org. chem.	360	formaldehyde etc.	212-B
			contam'd glass	1500	lab. processes	
18	Agriculture Canada Animal Pathology labs	Guelph	Organic chem.	0.5	lab. processes	263
			Inorg. chem.	0.5	lab. processes	146
19	Agriculture Canada Research Stat.	London	halo. solvents	100	lab. processes	241
			non-halo. solv.	960	lab. processes	263
			organic chem.	5	lab. processes	263
			inorg. chem.	5	lab. processes	146
			Pesticide/acetone	65		242
			Pesticide/halo.	2		242
20	Agriculture	Delhi	acetone	90	lab. processes	212-B

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
	Canada Research Stat.		ethyl acetate	675	lab. processes	212-B
			ethanol	135	lab. processes	212
			hexane	45	lab. processes	212
			dichloromethane	60	lab. processes	241-B
21	Health and Welfare Canada	Moose Factory	Biomedical and pathological	1680	lab. processes	312P?
22	Health and Welfare Canada	Scarborough	solvents	1500	halo and non-halo. lab. processes	263
23	Canada Post	Windsor	cleaning fluid	650	halo and non-halo.	241
24	Fisheries and Oceans	Toronto (Keele)	Hexane ethyl acetate	312	lab. processes	263 212-B
25	Consumer and Corporate Affairs	Toronto	petrol	873		221
26	Correctional Services	Bath (Millhaven)	Lubricants	420	Vehicle	252
			Crankcase oil		Maintenance	
			waste paints	600	Paintshop	145
27	National Defence	Brantford	Lubricants	1040	Vehicle	252
			Crankcase oil		Maintenance	
			petrol	780	Vehicle	221
					Maintenance	

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
28	National Defence	London (CFB)	antifreeze	348	Vehicle Maintenance	212
			non-halo solvent	432	cleaning	212
			halo solvents	432	degreasing	241
			waste paint sludge	360	Paintshop	145
			Lubricants Crankcase oil	11100	Vehicle Maintenance	252
			petrol	1800	Vehicle Maintenance	221
			antifreeze	912	Vehicle Maintenance	212
			non-halo solvent	1560	cleaning	212
			halo solvents	1500	degreasing	241
			waste paint sludge	1520	Paintshop	145
29	National Defence	Stratford (Armoury)	Lubricants Crankcase oil	1140	Vehicle Maintenance	252
			petrol	920	Vehicle Maintenance	221
			antifreeze	432	Vehicle Maintenance	212
			non-halo solvent	360	cleaning	212
			halo solvents	360	degreasing	241
			waste paint sludge	360	Paintshop	145

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
30	National Defence	Sarnia (Armoury)	Lubricants Crankcase oil	840	Vehicle Maintenance	252
			petrol	420	Vehicle Maintenance	221
			antifreeze	468	Vehicle Maintenance	212
			non-halo solvent	336	cleaning	212
			halo solvents	324	degreasing	241
			waste paint sludge	336	Paintshop	145
31	National Defence	Cambridge (Armoury)	Lubricants Crankcase oil	1260	Vehicle Maintenance	252
			petrol	840	Vehicle Maintenance	221
			antifreeze	372	Vehicle Maintenance	212
			non-halo solvent	384	cleaning	212
			halo solvents	420	degreasing	241
			waste paint sludge	360	Paintshop	145
32	National Defence	London (Armoury - Prevost)	Lubricants Crankcase oil	1080	Vehicle Maintenance	252
			petrol	660	Vehicle Maintenance	221
			antifreeze	372	Vehicle Maintenance	212

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
			non-halo solvent	468	cleaning	212
			halo solvents	420	degreasing	241
			waste paint sludge	360	Paintshop	145
33	National Defence	Windsor (Armoury)	Lubricants Crankcase oil	360	Vehicle Maintenance	252
			petrol	900	Vehicle Maintenance	221
			antifreeze	492	Vehicle Maintenance	212
			non-halo solvent	1644	cleaning	212
			halo solvents	1260	degreasing	241
			waste paint sludge	1140	Paintshop	145
34	National Defence	Chatham (Armoury)	Lubricants Crankcase oil	1020	Vehicle Maintenance	252
			petrol	360	Vehicle Maintenance	221
			antifreeze	324	Vehicle Maintenance	212
			non-halo solvent	360	cleaning	212
			halo solvents	360	degreasing	241
			waste paint sludge	360	Paintshop	145

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
35	National Defence	Camp Ipperwash Forest	Lubricants Crankcase oil	1680	Vehicle Maintenance	252
			petrol	1260	Vehicle Maintenance	221
			antifreeze	420	Vehicle Maintenance	212
			non-halo solvent	576	cleaning	212
			halo solvents	600	degreasing	241
			waste paint sludge	600	Paintshop	145
36	National Defence	HMCS Hunter Windsor	Lubricants Crankcase oil	780	Vehicle Maintenance	252
			petrol	300	Vehicle Maintenance	221
			antifreeze	396	Vehicle Maintenance	212
			non-halo solvent	360	cleaning	212
			halo solvents	360	degreasing	241
			waste paint sludge	360	Paintshop	145
37	National Defence	Simcoe (Armoury)	Lubricants Crankcase oil	660	Vehicle Maintenance	252
			petrol	396	Vehicle Maintenance	221
			antifreeze	408	Vehicle Maintenance	212
			non-halo solvent	420	cleaning	212

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
			halo solvents	360	degreasing	241
			waste paint sludge	360	Paintshop	145
38	National Defence	Wolseley Barracks London	Lubricants Crankcase oil	13980	Vehicle Maintenance	252
			petrol	1800	Vehicle Maintenance	221
			antifreeze	1032	Vehicle Maintenance	212
			non-halo solvent	3120	cleaning	212
			halo solvents	3120	degreasing	241
			waste paint sludge	3000	Paintshop	145
			Alkaline cleaner- Varsol	3000	vehicles	122
				2700		213
39	National Defence	Trenton	toluene solv.	470	cleaning	211-B
			MEK	3525	cleaning	212-B
			MIBK	130	labs.	212-B
			Ammon. Hydroxide	60	printing	122
			trichloroethane	5	labs	241-B
			varsol	98325	painting	213
			methyl hydrate	4	cleaning	212
			petrol	16735	contam.	221
			photo - toners	25	printing	264
			unitaxII - photo	52	printing	264
			chromatic acid	216	anodizing	112

Facility #	Source I.D.	Location	Waste Type	Quantities (kg./year)	Processes	MOE ID #
			alodine	65	anodizing	
			fixer	540	photo	264
			battery electrol	600		
			KOH	36	batterys	122
			Parco Pubnite	2000	weapons sol'n	
			sodium persulpha	432	etchant	265
			tin, lead	24	electroplating	131-L
			Metex PTH	452	printing	
			HARSHA-tronix	90	printing	
			Metex activ.	20	printing	
			Metex precip.	20	printing	
			Metex electroles	168	pc boards	
			Metex cleaner	20	pc boards	
			antifreeze	5775	transmitter coolant	212
			lubricants	91260	aircraft maint.	252
			crankcase oil			
			carbon remover	600	cleaning	262
			photo - fixer	240	photo	264
			oily soap water	4320	cleaner	262
			BBD petrol liq.	114	lab.	221?
			spent paint	11350	paint shop	145
			tricresyl phosph	70	lab	232
40	National Defence	CFS Lowther TWNSP. McCrea	lubricants crankcase oils	2200	vehicle maintenance	252

5.0 Federal Contracting Options

In Ontario, the primary piece of legislation, Regulation 309 clearly states the responsibilities of the hazardous waste generator. The federal facility generating the waste is ultimately responsible it's safe and effective management, including storage, transport, and disposal. These responsibilities cannot be transferred to other departments or agencies, however there are some services offered to facilitate the generator's duties in this regard.

Three options of contracting services for the hazardous waste removal are available to the generating facility. They are listed in order of preference:

- 1) Public Works Canada (PWC) contracting services
- 2) Supply and Services Canada (SSC) contracting services, and
- 3) In-house services such as the federal facility's own contracting department can use local purchase orders (LPOs).

5.1 Public Works Canada (Contracting Services)

In the National Capital Region, Public Works Canada has taken an active role in the removal of hazardous wastes by developing with the assistance of Environmental Protection of Environment Canada, a master contract which any federal facility can use. The actual work required by federal facilities has been minimized. Public Works Canada co-ordinates every pick-up by contacting the disposal company and filling out appropriate forms such as waste manifests. Environment Canada being the clients' representatives, may spotcheck the pick-ups and will maintain liaison with the regulatory body (the Provincial Environment

Ministry).

All disposal costs for the hazardous wastes are paid by the generator. The transportation costs are shared among the facilities who requested the service. This process has shown its effectiveness because the quantity of federal laboratories in the National Capital Region (NCR).

In summary, Public Works Canada will carry out the following duties:

- 1) Develop master contracts for the NCR and other regions.
- 2) Review contractor's proposals including certificates, insurance, emergency plans, etc. (Environment Canada provides technical assistance).
- 3) Award and manage contracts.
- 4) Arrange removal services (pick-up).
- 5) Ensure that provincial requirements are met.
- 6) Fill out forms such as waste manifests (in National Capital Region only).
- 7) Follow up on contractors activities.

It should be noted that the existing PWC contract does not include bio-medical wastes, PCBs, PAHs, Dioxins, Furans, and radioactive wastes. For these wastes the facilities should refer to PWC for specific disposal contracts (if possible). PWC is in the process of developing a second master contact for bio-medical wastes.

Further to the Nielsen Task Force recommendations, PWC was mandated to provide Architectural and Engineering services including Real Property Contracting services to federal departments and agencies in Canada. Therefore, federal establishments located outside the National Capital Region can request hazardous waste removal contracting and management services.

5.2 Supply and Services Canada (Contracting Services)

Supply and Services Canada (DSS) has a comprehensive knowledge and expertise in contracting in general. They may develop, for any facility, a contract or standing offer for the proper removal of hazardous wastes. DSS will seek advice from Environment Canada - Environmental Protection and discuss contract details regarding existing hazardous waste regulations. However, DSS will only set up the contracts. The facilities still have to carry out the contract management duties.

In summary, the Department of Supply and Services will carry out the following duties:

- 1) Obtain from the generator the description of the hazardous wastes to be removed and the quantity on a yearly basis.
- 2) Develop a contract or a Regional Individual Standing Order.
- 3) Review contractor's proposals including certificates, insurance, emergency plans, etc. (Environment Canada will provide technical assistance).
- 4) Award the contract.

5.3 Local Purchase Orders

The local purchase order is the most common method of contracting a service in the federal government system. In this system the service is contracted with a minimum of conditions.

However, the LPOs should be used carefully. The facility's representatives should at least detail, on the LPOs, the scope of the work required by the waste management service, and request appropriate information such as Certificate of Approvals, insurances provisions, etc. (see section 8.3).

5.4 The Role of Environment Canada

The responsibility for regulating hazardous wastes, management and disposal, rests with provincial Ministries of the Environment. Environment Canada's role is;

- 1) to ensure that federal departments and agencies are aware of and abide by provincial regulations, and
- 2) to provide those departments and agencies with technical advice on hazardous waste management.

Environment Canada will also provide technical advice on regulations to Supply and Services Canada, Public Works Canada, and/or any department or agencies providing contracting services for the removal of hazardous wastes. On an ad hoc basis, as the clients' representatives, Environmental Protection officials will monitor the activities of carriers and disposal firms and make recommendations to federal departments pertaining to a contractor's capabilities.

6.0 Scenarios

The following scenarios are based on the limited amount of information known about the production of wastes at federal facilities. These scenarios are designed to provide the reader with an understanding of the advantages and disadvantages of contracting methods.

6.1 Scenario 1

It is assumed in this scenario that Public Works Canada or the Department of Supply and Services would arrange a master contract to cover the transport and disposal of waste from every federal facility in Ontario. The contract would be given on an annual basis and include disposal of wastes from remote sites such as Moose Factory on the shore of Hudson Bay. However, it would not include facilities within the National Capital Region.

The contracting of services in this manner would allow PWC or DSS to make up and tender only one contract a year. This would require the contract to cover removal of all different types of waste from facilities often found large distances away from each other. Once the initial contract was created the administration of the contract would shift to the regional PWC office, or to the facility representatives if the contract is awarded by DSS. They would have to schedule transporting of wastes with the disposal company.

The contract could adequately cover all legal aspects of transporting the waste, and the awarding of the contract would only be required once per year. Therefore the job of reviewing Certificates of Approval, quality of disposal facilities, and costing, would only have to be done once. On the basis of the types of waste listed in Table 4.1, the contract could be written such that all waste classifications could be covered with an

additional list describing the type of facility, the type of waste, and the location of the facility.

The difficulty with this form of contracting, is that costs can run high if all facilities are grouped together. The disposal companies often charge on the basis of the number of trips made to the facility. The costs of transporting wastes from a group of facilities (eg. the Smiths Falls group of waste generators), will escalate if they have not co-ordinated the scheduling of pick-ups together.

In addition, the large disposal companies are based in southern Ontario and the transfer of wastes from the northern facilities can be expensive due to transporting costs. The chance of an accidental spill rises with the increase in travel.

6.2 Scenario 2

In this scenario small individual contracts are written for every facility or group of facilities. The regional PWC or DSS office would have the contract written with the specific requirements of the facility set out. This would include the type and location of the waste, and the approximate scheduling of the waste transfers.

This method requires more time and manpower on the part of PWC or DSS. Each contract has to be initiated, written, assessed, and implemented separately. However specific need of the individual facilities are addressed. The method would be most acceptable if the facilities could be grouped together on the basis of location. If a disposal company can pick-up wastes from a number of localized sites on the same trip, the costs of transporting the wastes will decline.

6.3 Scenario 3

In this scenario the disposals are contracted by type of waste. The disposal of a particular waste classification throughout the region or province would be done by one company.

This is not an effective means of disposal unless the waste belongs to a class that is strictly regulated. Most of the wastes listed in Table 4.1 can be easily disposed, however, particularly hazardous substances such as PCBs and biomedical wastes may require special disposal contracts. Some disposal services specialize in the management of these special wastes.

6.4 Scenario 4

In this scenario the facility has a number of individual standing offers with different disposal services. There is a separate contract for PCBs, pathological wastes, generic wastes, and chemical wastes. The standing offer lists a "price per quantity disposed" for the different wastes. Each waste transfer has an additional base delivery charge.

This contracting method allows the facility to schedule the waste transfers according to its own requirements. The disposals can be timed such that the facility can prepare large volumes of waste on a periodic basis. However, when each facility operates on an individual basis, the advantage of co-ordinated transfers is lost (ie. facilities do not cut down expenses by scheduling the transfers at the same time).

6.5 Scenario 5 - A Recommendation

A master contract could be written for all of the facilities within Ontario (excluding the National Capital Region). The contract would set out the legal basis of the transaction and

specify the duties of the facility, the carrier, and the disposal service. A list of the wastes to be removed from a particular facility and the specifics of the transfer (eg. scheduling, loading areas, etc.) can be noted on a separate page and attached to the contract.

The contract could be administered on a regional basis, where one local company can be contracted to all federal facilities in the area. The scheduling of waste transfers would be co-ordinated such that a number of facilities could be serviced on one visit. This would minimize the time required to write a contract, without limiting the legal protection a properly written contract provides. The individual needs of the facilities are attended when the contracting is done on a regional basis. In addition, transportation costs and accidents are minimized.

In this scenario, special wastes such as PCBs would be contracted separately on a province - wide contract.

7.0 Items For Inclusion In The Request for Proposal and Criteria To Be Used In The Evaluation of Contract Proposals

A Request for Proposal to provide hazardous waste management services must provide adequate information regarding the status of the waste at the facility. The generator must provide the following information:

- 1) The hazardous waste management number of the facility.
- 2) A list of the types of wastes already registered.
- 3) A list of the waste to be generated, the quantities involved in the process, and the probable frequency of transfers.
- 4) The location of the facility and the loading areas on the site.

The Request for Proposal for hazardous waste management services at a government facility should include a request for some additional information from the contractor. The information is useful in ascertaining whether the contractor has the ability to perform the service within the regulatory requirements. A Request for Proposal, whether issued through the Public Works Canada, Department of Supply and Services, or local Purchase Order system, should require the contractor to include:

- 1) A copy of the carrier's Certificate of Approval from the Ontario Ministry of the Environment.
- 2) A copy of the receiver's Certificate of Approval from the Ontario Ministry of the Environment.
- 3) What insurance provisions the contractor has made in the

event of an accident.

- 4) What training do the personnel have in order to deal with the wastes. Supply copies of Certificates of Training of the carrier.
- 5) If any special disposal methods are to be used to dispose of the waste, what are they and have they been approved by the Ministry of the Environment.
- 6) What resources can the contractor provide in the event of a spill of the wastes.
- 7) A description of field test methods.
- 8) The methods of classifying, labelling, and packaging the wastes to be transported.
- 9) A list of sub-contractors with the information as required above.

To evaluate the contracts the purchasing officer should review this information in addition to the usual criteria such as cost, reputation, etc. When the proposals are evaluated some criteria to rate waste management service should include:

- . Under no circumstances should a carrier or receiver be given a contract if they cannot supply a valid Certificate of Approval from the Ministry of the Environment.
- . The insurance should be enough to cover the costs of an accident. Adequate insurance is required before the carrier or receiver can receive a Certificate of Approval from the Environmental Approvals Section of the Ministry of the Environment. However the criteria upon which the insurance

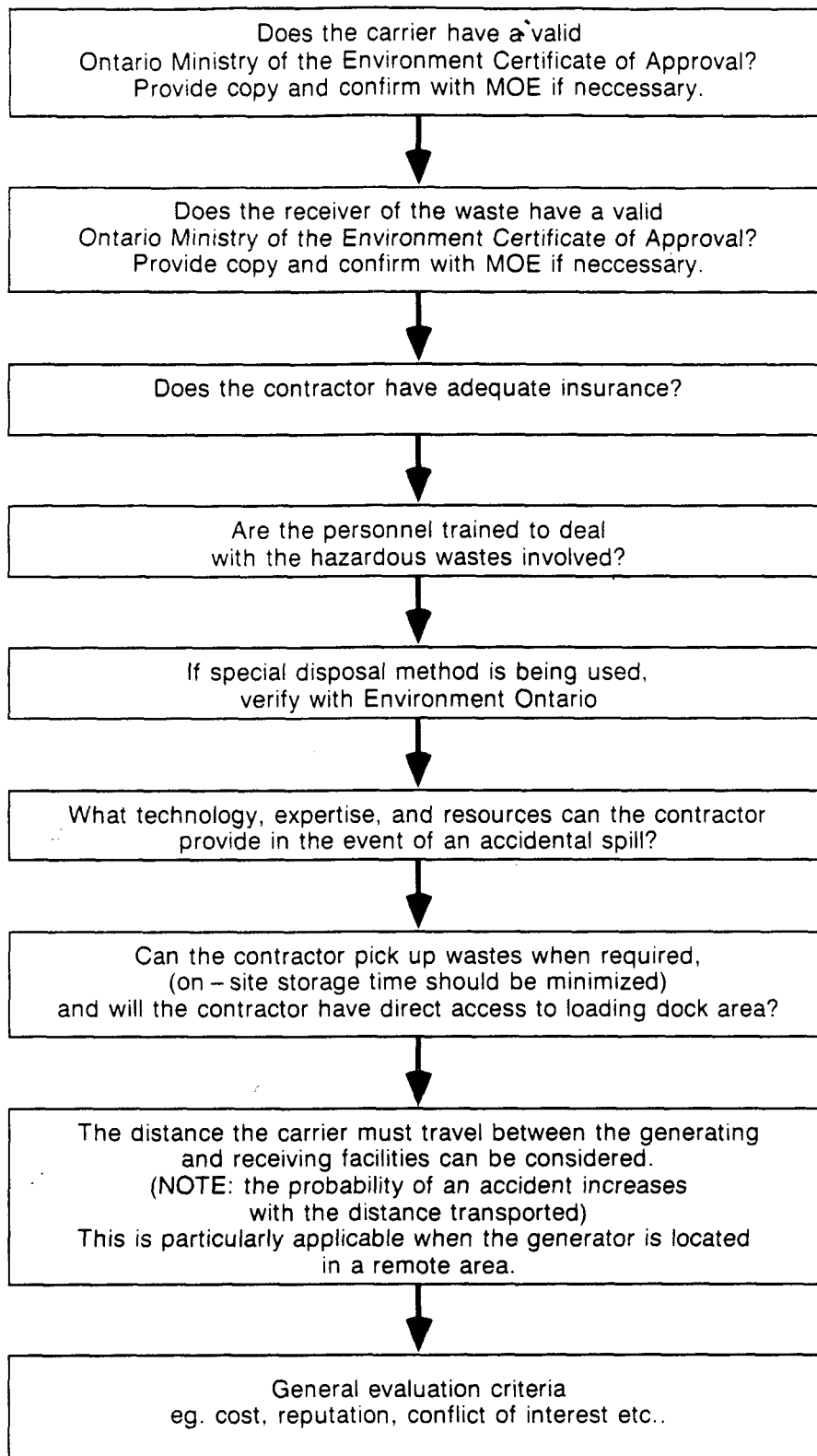


Figure 7.1

Evaluation of Contracts

provisions are set is still being established by the Ministry. If there is any doubt about the adequacy of the contractor's insurance, the Environmental Approvals Section of the Ontario Ministry of the Environment can be contacted for advice.

- . The Certificate of Training may be issued by the employer, but should specify the employee as trained in handling the types of waste to be managed in the contract.
- . Special disposal technologies must be approved by the Ministry of the Environment.
- . The contractor should be able to supply a reasonable amount of safety equipment, expertise and assistance in the event of an accident. Currently, the Ontario Ministry of the Environment (Spills Action Centre) is developing a set of guidelines detailing the type of emergency response resources a carrier should possess in the event of a spill. These guidelines will be publicly available when they are finalized.
- . Consideration may be given to the distance travelled by the carrier from the generating facilities to the receiver's. The probability of an accident increases with the distance travelled. This may be a determining factor if a generator is located in a remote area and there is a choice between transporting the waste many hundreds of kilometers or only a short distance.

8.0 Feasibility of the Contracting Methods

8.1 Public Works Canada

There are a number of benefits in contracting hazardous waste transfers and disposals through the Public Works Canada system. The PWC will ensure all the legal requirements of the contractor and consignee are explicitly stated in the master contract. The system also offers the services of PWC staff to oversee the operation of the waste management services including the scheduling of removal services. This allows the waste management process to be streamlined, as a number of facilities can be administered as a single unit.

The PWC process is most efficient when the facilities have similar requirements and special disposal situations do not arise. Ideally, all the facilities are localized into an accessible area and have similar wastes to be transferred and disposed. In addition, the amounts and types of wastes from these facilities would be the same every year.

The difficulty with the PWC system is that the contracting and administration duties are with PWC, but the responsibility for the safe and effective management of the waste is retained by the facility. The facility is penalized for any failure to abide by the provisions outlined in Regulation 309. Therefore when special situations arise, such as a change in the waste registration list or scheduling of waste transfers, there must be a designated official to represent the facility.

Ideally, this official would be a permanent employee of the facility, and have a first-hand knowledge of the types of operations generating the wastes. Any changes in the established management system, or requirements of the facility should be immediately apparent to the official so that PWC can be

contacted. Specific duties of the official would include;

- . filling out Section A of the manifest form during waste transactions (outside the National Capital Region),
- . ensuring wastes are not stored illegally or beyond the three month limit set by Regulation 309,
- . updating of the waste registration list for the Ministry of the Environment on an annual basis,
- . liason with Public Works Canada,
- . see that Copy #6 of the waste manifest form is obtained from the waste receiver within four weeks of the waste transfer,
- . maintain records of all waste generated at the facility for at least two years after disposal.
- . verifying that hazardous wastes generated are registered and updating of the waste registration list for the Ministry of the Environment as required, or on an annual basis.

The later two responsibilities may be taken on by Public Works Canada. In summary, if there are no changes to the originally established system the PWC method should operate effectively however, a designated in-house official should be assigned at each facility. The in-house official and Public Works Canada must set guidelines for communication and responsibilities.

8.2 Department of Supply and Services

The Department of Supply and Services system provides similar contracting duties to those described by the PWC system. The contract or standing order developed by DSS will require Environment Canada input regarding the provisions of Regulation 309. However, once the contract is awarded, the facility takes on all administrative duties in the management of the service.

This will require a designated official to represent the facility and to administrate the removal of waste according to the waste management regulations. The official should be a permanent employee who is familiar with the waste-generating operations of the facility. Specific duties of the official would include;

- . ensuring wastes are not stored illegally or beyond the three month limit set by Regulation 309,
- . updating of the waste registration list for the Ministry of the Environment on an annual basis,
- . liason with Department of Supply and Services,
- . see that Copy #6 of the waste manifest form is obtained from the waste receiver within four weeks of the waste transfer,
- . maintain records of all waste generated at the facility for at least two years after disposal,
- . scheduling of waste transfers,
- . maintaining transfer areas (eg. storage areas, loading docks, etc.),

- . filling out forms such as waste manifests and generator registration forms
- . verifying that hazardous wastes generated are registered and updating of the waste registration list for the Ministry of the Environment as required, or on an annual basis.

The official must be familiar with the requirements of Regulation 309 and its applicability to the resources of the facility. This system can be an effective method of hazardous waste management providing the facility is properly administered. However, the PWC method is still preferred because the service offers the use of highly trained personnel throughout the tenure of the contract.

8.3 Local Purchase Orders

The local purchase order (LPO) is perhaps the most common method of contracting a service in the federal government system. However, of the possible contracting methods listed, it leaves the most chance for mismanagement of the waste, and is the least desirable of the three.

If a local purchase order is used, the facility does not utilize the professional, trained contracting services of the PWC or DSS methods. Instead all contractual, as well as waste management duties, are the responsibility of the facility. The LPO does not set out insurance or labour conditions, or a detailed scope of work required by the waste management service.

If a local purchase order is used, the facility is responsible for the following duties:

- 1) Ensure proper registration of hazardous waste

generators and the hazardous wastes they produce.

- 2) Ensure waste registration list is updated annually.
- 3) Request and review contractor's proposals including certificates, insurance, emergency plans, etc.
- 4) Award and manage local purchase order.
- 5) Schedule of waste transfers.
- 6) Ensure that wastes are not stored illegally or beyond the three month limit set by Regulation 309.
- 7) Fill out waste manifest forms.
- 8) Follow up on contractors activities (eg. see that Copy #6 of the manifest form is obtained from the waste receiver within four weeks of the waste transfer).

If this contracting system is used it is strongly advised that a designated official of the facility becomes familiar with the requirements of Regulation 309.

appendix a

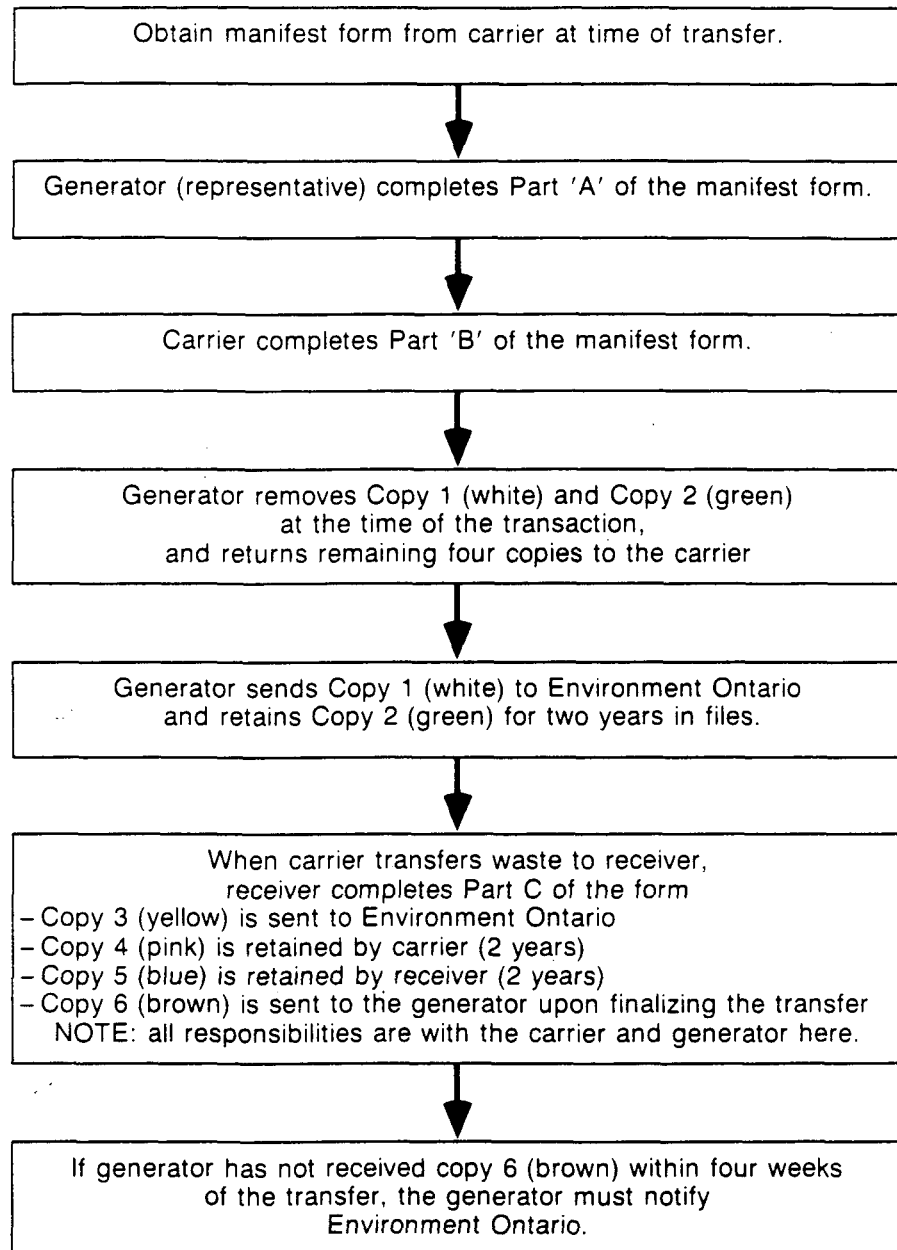


Figure A

Completing the Waste Transfer and Manifest Forms

appendix b



Ministry
of the
Environment
Ministère
de
l'Environnement

MANIFEST / MANIFESTE

Regulation 309, R.R.O. 1980, Form 1 "Règlement 309, R.R.O. de 1980, formule 1"

CONFORME AU TRANSPORTATION DE LIQUIDES DANGEREUX (RÈGLEMENT 309)
UNIFORME ET ALI. CHAPITRE 26 DE 1980
CONFORME AU TRANSPORT DE LIQUIDES DANGEREUX (RÈGLEMENT 309)
UNIFORME ET ALI. CHAPITRE 26 DE 1980

A Consignor (Expéditeur) Producer (Expéditeur) Company Name / Nom de la compagnie Head Office Address / Adresse du siège social City / Ville Prov. Postal Code / Code postal Shipping Site Address / Adresse du site d'expédition City / Ville Prov. Postal Code / Code postal Intended Receiver (Consignee) / Réceptaire (Destinataire) Registration No. / N° de reconnaissance Receiving Site Address / Adresse du lieu de réception City / Ville Prov. Postal Code / Code postal		B Carrier (Transporteur) Certificate of Approval No. / N° de certificat d'approbation Company Name / Nom de la compagnie Address / Adresse City / Ville Prov. Postal Code / Code postal Registration / Enregistrement License Plate No. / N° de plaque d'immatriculation Vehicle / Véhicule Trailer # 1 / 1 ^{er} remorque Trailer # 2 / 2 ^e remorque Point of entry / Point d'entrée Point of exit / Point de sortie Consignor Certification / I declare that the information contained in Section A is correct and complete. Signature Day / Jour Month / Mois Year / Année		(Instructions on Reverse) / (Instructions au verso) Circulation No. (Quebec only) / N° de circulation (Québec seulement) Other Manifest Number(s) / Autres numéros de manifestes C Receiver (Consignee) Registration No. / N° de reconnaissance Company Name / Nom de la compagnie Address / Adresse City / Ville Prov. Postal Code / Code postal Receiving Site Address / Adresse du lieu de réception City / Ville Prov. Postal Code / Code postal Date Received / Date de réception Time / Heure Quantity Received / Quantité reçue Units / Unités Handling Code / Code de manutention Discontinuation Code / Code d'arrêt Signature Day / Jour Month / Mois Year / Année	
Special Handling / Emergency Instructions / Instructions spéciales de manutention en cas d'urgence		Waste Identification No. / N° d'identification des déchets Provincial TDSB / TDSB Quantity Shipped / Quantité expédiée Units / Unités Weight / Poids Volume / Volume Packaging / Emballage Consignment / Consignement Packaging Container / Conteneur d'emballage		Quantity Received / Quantité reçue Units / Unités Handling Code / Code de manutention Discontinuation Code / Code d'arrêt Signature Day / Jour Month / Mois Year / Année	
Date Shipped / Date d'expédition Day / Jour Month / Mois Year / Année		Scheduled Arrival Date / Date d'arrivée prévue Day / Jour Month / Mois Year / Année		Signature Day / Jour Month / Mois Year / Année	

FORM 1 MANIFEST FORM - REGULATION 309

FORM 2 REGISTRATION FORM - REGULATION 309



Ministry
of the
Environment
Ministère
de
l'Environnement

Generator Registration Report "Regulation 309, R.R.O. 1980, Form 2" Rapport d'inscription du producteur "Règlement 309, R.R.O. de 1980, formule 2"

NOTE Regulation 309 requires generators of hazardous or liquid industrial wastes to submit a Generator Registration Report using this form respecting each waste generation facility and each hazardous or liquid industrial waste.

REMARQUE Le règlement 309 exige que les producteurs de déchets industriels liquides ou dangereux présentent un Rapport d'inscription du producteur en se servant de la présente formule pour chaque lieu de production de déchets et chaque déchet industriel liquide ou dangereux.

Part I - Generator Identification / Partie I - Identification du producteur

This report is / Le présent rapport constitue		Generator Registration Number / N° d'inscription du producteur	
1 <input type="checkbox"/> an initial generator registration report / un premier rapport d'inscription du producteur		<div></div>	
or / ou			
2 <input type="checkbox"/> a revision - enter Ontario Generator Registration No. / une révision - veuillez inscrire le numéro d'inscription du producteur de l'Ontario			
3 For generators located outside of Ontario - enter Registration/Notification number assigned by your local environmental authority. / Si vous êtes un producteur de l'extérieur de l'Ontario, veuillez inscrire le numéro d'inscription/identification attribué par les autorités locales en matière d'environnement.		<div></div>	
Name of Generator (Enter the corporate name or, if a partnership or proprietorship, the name of the principal(s). If the generator intends to carry on business under a separate name or style, this should also be entered). / Nom du producteur (Veuillez inscrire la dénomination sociale ou, s'il s'agit d'une société en nom collectif ou d'une société à propriétaire unique, le nom du (des) principal (principaux) propriétaire(s). Si le producteur envisage d'exploiter une entreprise sous une dénomination ou un nom distinct, veuillez également le noter.)			
4 Name / Nom <div></div>			
5 Address / Adresse <div></div>			
6 Municipality / Municipalité <div></div>		Province/State / Province (État) <div></div>	Postal Code / Code postal <div></div>
7 Site location / Lieu des installations <div></div>			
8 Municipality / Municipalité <div></div>		Province/State / Province (État) <div></div>	Postal Code / Code postal <div></div>
9 Name of contact / Nom de la personne à contacter <div></div>		Tel No. / N° de tél. <div></div>	
10 Standard Industrial Classification Codes (SIC) for Site noted in Section 7 / Codes de la classification des activités économiques pour les installations décrites au n° 7 <div></div>			
11 Total number of wastes to be registered with this report / Nombre total de déchets à inscrire au moyen de ce rapport <div></div>			
12 Name of Company Official / Nom du représentant autorisé de la compagnie		13 Position / Poste	
14 Signature / Signature		15 Date / Date	
PENALTY / PÉNALITÉ			
16 Ministry Use Only / Réserve au ministère			
County Code / Code de comté			
Regional/Division Code / Code de région/division			
Municipal Code / Code de municipalité			
Inter City Tie Line / Ligne privée interurbaine			

1	Description of Waste : Description des déchets								
2	Description of generating process : Description du procédé de production								
3	Waste quantity generated or accumulated : Quantité des déchets produite ou accumulée Continuous processes / Procédés continus Batch processes / par lots								
<table style="margin-left: auto; margin-right: auto; border: none;"> <tr> <td style="text-align: center;"><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div></td><td style="vertical-align: middle; padding: 0 10px;">or / ou</td><td style="text-align: center;"><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div></td><td style="text-align: center;"><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div><div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div></td></tr> <tr> <td style="text-align: center;">kg/mo. : kg/mois</td><td></td><td style="text-align: center;">batches/mo. lots/mois</td><td style="text-align: center;">kg/batch : kg/lot</td></tr> </table>		<div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div>	or / ou	<div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div>	<div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div> <div style="border-bottom: 1px solid black; width: 15px; height: 15px; display: inline-block;"></div>	kg/mo. : kg/mois		batches/mo. lots/mois	kg/batch : kg/lot
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kg/mo. : kg/mois		batches/mo. lots/mois	kg/batch : kg/lot						
4	Primary characteristic : Caractéristique principale								
<small>Analytical data (if applicable) : If the data has been estimated, attach separate sheet outlining the basis for the estimate. Données analytiques (le cas échéant) : Si les données sont estimées, veuillez annexer une feuille à part pour décrire sur quoi reposent les estimations.</small>									
<small>Name of Laboratory (if applicable) : Laboratoire (le cas échéant)</small>									
Waste Class <small>Catégorie des déchets</small>		Hazardous Waste Number <small>Número des déchets dangereux</small>		Specific Gravity <small>Gravité spécifique</small>			Physical State <small>(Solid - S, Liquid - L, Gas - G) État physique (solide - S, liquide - L, gazeux - G)</small>		
<small>For Ministry Use Only : Réserve au ministère</small>									
5	Secondary Characteristic : Caractéristique secondaire								
<small>Analytical data (if applicable) : Données analytiques (le cas échéant)</small>									

1 Principal Intended Receiver : Réceptionnaire principal prévu Company name and address / Nom et adresse de la compagnie <div style="border: 1px solid black; height: 40px; width: 100%;"></div>										Receiver No. / N° du réceptionnaire <div style="border: 1px solid black; height: 20px; width: 100%;"></div>									
Municipality / Municipalité <div style="border: 1px solid black; height: 20px; width: 100%;"></div>					Province/State / Province-État <div style="border: 1px solid black; height: 20px; width: 100%;"></div>					Postal Code / Code postal <div style="border: 1px solid black; height: 20px; width: 100%;"></div>									

FORM 3 REGISTRATION FORM - TDG REGULATIONS

SCHEDULE IX

(s. 9.8)

FORM 1

REGISTRATION

1. ☐ Initial Registration

☐ Subsequent Registration

2. Type of business (check prominent activity only)

☐ product manufacturing

☐ importing

☐ container handling facility

☐ freight forwarding

☐ transfer facility

☐ distributing

☐ warehousing

☐ other (specify) _____


3. Company name and head office address

4. List of any other names under which the registrant does business in Canada and to which this registration applies.

5. Dangerous goods involved

Check each applicable type of dangerous goods in bulk or in packages to which this registration applies.

SCHEDULE IX (con.)
FORM I (con.)

	TYPE OF DANGEROUS GOODS		CLASSIFICATION	BULK	PACKAGED
(a)	EXPLOSIVES		1		
(b)	COMPRESSED GASES	— FLAMMABLE	2.1		
		— NON-FLAMMABLE	2.2		
		— POISONOUS	2.3		
		— CORROSIVE	2.4		
(c)	FLAMMABLE LIQUIDS	— GASOLINE	3.1		
		— OTHER (flashpoint less than -18°C)	3.1		
		— OTHER (flashpoint not less than -18°C but less than 23°C)	3.2		
		— OTHER (flashpoint not less than 23°C but less than 37.8°C)	3.3		
(d)	FLAMMABLE SOLIDS		4.1		
(e)	SPONTANEOUSLY COMBUSTIBLE SUBSTANCES		4.2		
(f)	DANGEROUS WHEN WET SUBSTANCES		4.3		
(g)	OXIDIZERS	— OXYGEN	5.1		
		— OTHER	5.1		
(h)	ORGANIC PEROXIDES		5.2		
(i)	POISONS		6.1		
(j)	INFECTIOUS SUBSTANCES		6.2		
(k)	RADIOACTIVE MATERIALS		7		
(l)	CORROSIVES		8		
(m)	MISCELLANEOUS DANGEROUS GOODS		9.1		
(n)	HAZARDOUS TO THE ENVIRONMENT		9.2		
(o)	DANGEROUS WASTES		9.3		

SCHEDULE IX (conc.)
FORM 1 (conc.)

6. Attach a list containing the following information for each of the company branch offices or other plant locations in Canada where dangerous goods are dealt with:

- (a) address of each company branch office or other plant location;
 - (b) each means of transport used to ship dangerous goods from plant site.
-

7. Information on the person completing this Form

- (a) name _____
 - (b) position _____
 - (c) address _____
 - (d) telephone number _____
(area code/number)
-

I certify that the above information is correct to the best of my knowledge

Signature

Date

FORM 4 MANIFEST FORM - TDG REGULATIONS

SCHEDULE IV (s. 4.15, 4.16, 4.17, 4.18)

FORM 1

A - CONSIGNOR (GENERATOR) EXPÉDITEUR		Provincial No. - N° provincial		B - CARRIER TRANSPORTEUR		Provincial No. - N° provincial	
Company Name - Nom de l'entreprise		Circulation No. - N° de circulation		Company Name - Nom de l'entreprise		Provincial No. - N° provincial	
Address - Adresse				Address - Adresse			
Shipping Site Address - Origine de l'expédition				City - Ville		Postal Code - Code postal	
City - Ville		Prov.		Registration Immatriculation des véhicules		License No. Immatriculation	
Postal Code - Code postal		Province		Vehicle - Véhicule moteur		Province	
Intended Consignee Destinataire choisi		Provincial No. - N° provincial		Trailer #1 - Remorque #1		Trailer #2 - Remorque #2	
Address - Adresse		Point of Entry Point d'entrée		Point of Exit Point de sortie		Carrier Certification: I declare that I have received the wastes described in Part A for delivery to the Intended Consignee. Déclaration du transporteur: Je déclare avoir pris livraison des déchets décrits à la partie A afin de les transporter au destinataire choisi.	
Receiving Site Address - Destination de l'expédition				Name of Driver (Print) Nom du conducteur (caractères d'imprimerie)		Tel. No. (Area Code) N° de tél. (ind. rég.)	
City - Ville		Prov.		Postal Code - Code postal		Signature	

Physical State (Sol., Liq., Gas) État physique (sol., liq., gaz)	Shipping Name Appellation réglementaire	Product Identification No. N° d'identification du produit		Classification	Packing Group Groupe d'emballage	Quantity Shipped Quantité expédiée		Concentration		Packaging Contenants	
		Provincial	TDGA LTMD			Units L/kg Unités	Units (Specify) Unités (spécifier)	No. - Nbre	Code (Int/Ext)		

Special Handling/Emergency Instructions
Manutention spéciale/Instructions d'urgence

Attached
Ci-jointes ☐

Below
Plus bas ☐

Shipped - Date d'expédition
Time - Heure

AM ☐ PM ☐

Date (D/M/Y - J/M/A)

Scheduled Arrival Date (D/M/Y)
Date prévue d'arrivée (J/M/A)

Consignor Certification: I declare that the information contained in Part A is correct and complete.

Déclaration de l'expéditeur: Je déclare que tous les renseignements à la partie A sont vérifiés et complets.

Name of Authorized Person (Print)
Nom de l'agent autorisé (caractères d'imprimerie)

Tel. No. (Area Code)
N° de tél. (ind. rég.)

Signature

MANIFEST - MANIFESTEManifest Reference No.
N° de référence du manifesteReference No.'s of Other Manifest(s) used
N°s de référence des autres manifestes utilisés**C - CONSIGNEE (RECEIVER)
DESTINATAIRE**

Company Name - Nom de l'entreprise

Provincial No. — N° provincial

Address - Adresse

City - Ville

Prov.

Postal Code - Code postal

Receiving Site Address — Destination de l'expédition

City - Ville

Prov.

Postal Code - Code postal

Received - Réception
Time - HeureAM ☐PM ☐

Date (D/M/Y - J/M/A)

Quantity Received
Quantité reçueUnits
L/kg
UnitésIdentify any Shipment
Discrepancy/Problems/
Refusal
Identifier toute différence
entre manifeste et cargaison/
problèmes/refusHandling
Code
Code de
manutentionDecontamination
Décontamination
Packaging
Contenants
Yes
Oui
No
Non
Vehicle
Vehicule
Yes
Oui
No
NonIf Handling Code "Other" (Specify)
Si code de manutention "divers", spécifierIf waste to be re-transferred (specify company name)
Si le déchet doit être re-transféré, indiquer le nom de l'entreprise

Provincial No. - N° provincial

Address - Adresse

City - Ville

Prov.

Consignee Certification: I declare that the information contained in Part C is correct and complete.

Déclaration du destinataire: Je déclare que tous les renseignements à la partie C sont vérifiés et complets.

Name of Authorized Person (Print)
Nom de l'agent autorisé (caractères d'imprimerie)

Tel. No. (Area Code) - N° de tél. (ind. rég.) Signature

**EMERGENCY TELEPHONE
NUMBERS
N° DE TÉLÉPHONE EN CAS
D'URGENCE**Canutec (Call Collect)
Canutec (appeler à frais virés)

(613)-966-6666

Alberta

1-800-222-6514

British Columbia
Colombie-Britannique

(604) 387-5956

Manitoba

(204) 944-4888

New Brunswick
Nouveau-Brunswick

Zenith 4-9000

Newfoundland
Terre-Neuve

(709)-772-2083

Northwest Territories
Territoires du Nord-Ouest

(403)-920-8130

Nova Scotia
Nouvelle-Écosse

Zenith 4-9000

Ontario

Prince Edward Island
Île-du-Prince-Édouard

Zenith 4-9000

Quebec
Québec

(418)-643-4595

Saskatchewan

1-800-667-3503

Yukon Territory
Territoire du Yukon

(403)-667-7244