

Code of Practice for Landfills

© Published by Alberta Queen's Printer

Queen's Printer Bookstore
5th Floor, Park Plaza
10611 - 98 Avenue
Edmonton, AB T5K 2P7
(780) 427-4952
Fax (780) 452-0668

E-mail: qp@gov.ab.ca
Shop on-line at www.qp.alberta.ca

CODE OF PRACTICE FOR LANDFILLS
ALBERTA ENVIRONMENTAL PROTECTION

TABLE OF CONTENTS

- 1 PREFACE
- 2 INTRODUCTION
- 3 DEFINITIONS
- 4 REGISTRATION
- 5 PERSON RESPONSIBLE'S DUTY
- 6 SITING AND DESIGN REQUIREMENTS
 - (1) Investigation
 - (2) Landfill design
 - (3) Topsoil and subsoil assessment
 - (4) Topsoil locations
 - (5) Class II - landfill design
 - (6) Class II - alternate design features
 - (7) Class II - groundwater monitoring well
 - (8) Class II - monitoring locations
 - (9)-(10) Director's powers - groundwater monitoring
 - (11) Performance standards
 - (12) Class II - restriction on waste deposit
 - (13) Class III - landfill design
 - (14) Class III - groundwater monitoring
- 7 OPERATING REQUIREMENTS
 - (1) Salvage and storage of topsoil
 - (2) Operations plan – general
 - (3) Operations plan - unauthorized wastes (Class II)
 - (4) Operations plan - unauthorized wastes (Class III)
 - (5) Operations plan - procedures for special handling
 - (6) Class II - sorting and storage areas
 - (7) Class II - liquid waste
 - (8) Class II - cover material

- (9) Class II - winter cover
- (10) Director's powers - cover
- (11) Class III - cover
- (12) Water removal
- (13) Leachate/water treatment
- (14) Signage
- (15) Access control
- (16) Fire control
- (17) Litter controls
- 8 MONITORING, ANALYSIS AND CORRECTIVE ACTION
 - (1) Annual groundwater monitoring
 - (2) Director's powers - groundwater monitoring
 - (3) Implementation of groundwater remediation plan
 - (4) Protection of groundwater monitoring wells
 - (5) Analysis of samples
- 9 RECLAMATION, CLOSURE AND POST-CLOSURE CARE
 - (1) Final cover system
 - (2) Closure – commencement
 - (3) Closure – completion
 - (4) Notice of intended closure
 - (5) Verification of closure
 - (6) Post-closure requirements
- 10 RECORD KEEPING
 - (1) Operating record - general
 - (2) Annual report
 - (3) Operating record - closure and reclamation report
 - (4) Operating record - post-closure period
 - (5) Maintenance of operating record
- 11 REPORTING
- 12 CODE AMENDMENT
 - Registration form

CODE OF PRACTICE FOR LANDFILLS

ALBERTA ENVIRONMENTAL PROTECTION

PREFACE

1(1) The Code of Practice for Landfills is incorporated by the *Waste Control Regulation* (A.R. 192/96), under the authority of section 36 of the *Environmental Protection and Enhancement Act*. Persons responsible for landfills accepting 10,000 tonnes or less of non-hazardous waste per year must meet all its requirements to ensure that their activities are in compliance with Alberta's environmental laws. Persons responsible must comply with all requirements of the *Environmental Protection and Enhancement Act*, its associated regulations, and all other applicable laws.

(2) Persons responsible for landfills affected by this Code must register with Alberta Environmental Protection prior to commencing construction and operation of a landfill. Section 4 of this Code deals with registration in greater detail.

INTRODUCTION

2(1) This Code of Practice outlines minimum requirements for the construction, operation and reclamation of landfills that accept 10,000 tonnes or less per year of non-hazardous and inert waste, and promotes environmentally sound management practices at those landfills.

(2) Landfills that accept more than 10,000 tonnes of waste per year, that accept hazardous waste, or that are located in a ravine, gully or coulee or over a buried valley will require an approval under the *Environmental Protection and Enhancement Act*. Persons responsible for these landfills should consult the *Activities Designation Regulation* (A.R. 211/96) to determine whether their activities will require an approval.

(3) Questions or concerns regarding the application or contents of this Code of Practice can be made to:

Alberta Environmental Protection
Northeast Boreal & Parkland Regions
Regional Director
5th Floor, 9820 - 106 Street
Edmonton, AB T5K 2J6
Phone: (403) 427-9562
Fax: (403) 422-5120

or:

Alberta Environmental Protection
Northwest Boreal & Northern East Slopes Regions
Regional Director
Provincial Building
203, 111 - 54 Street
Edson, AB T7E 1T2
Phone: (403) 723-8395
Fax: (403) 723-8542

or:

Alberta Environmental Protection
Southern East Slopes & Prairie Regions
Regional Director
201 Deerfoot Square
2938 - 11 Street N.E.
Calgary, AB T2E 7L7
Phone: (403) 297-7605
Fax: (403) 297-5944

DEFINITIONS

3(1) In this Code of Practice,

- (a) "active life" means the period of operation of a landfill, beginning with the initial receipt of waste and ending at completion of closure activities;
- (b) "active portion" means that part of a landfill that has received or is receiving wastes and has not been closed;
- (c) "cell" means compacted solid wastes that are enclosed by natural soil or cover material in a landfill;
- (d) "closure" means the construction of a final cover for a landfill including replacement of topsoil and subsoil as required for the intended future use of the landfill site;
- (e) "condensate" means the liquid generated as a result of a gas recovery process or processes at a landfill;
- (f) "cover material" means soil or other material that is used to cover compacted solid wastes in a landfill;
- (g) "disease vectors" means animals capable of transmitting disease to humans;
- (h) "landfill" means a Class II or Class III landfill that accepts 10,000 tonnes or less of waste per year;
- (i) "lateral expansion" means an expansion of the waste boundaries of a

landfill beyond the property area approved for landfilling;

- (j) "leachate" means liquid that has percolated through and drained from solid waste and has extracted dissolved or suspended materials from the waste;
- (k) "liner" means a continuous layer constructed of natural or man-made materials, beneath or on the sides of a landfill or a cell, which restricts the downward or lateral migration of the waste constituents;
- (l) "monitoring system" means all equipment used for sampling or recording data including, but not limited to, equipment used for continuous monitoring;
- (m) "points of compliance" means the location or locations where measurements of groundwater quality are taken to assess landfill performance;
- (n) "post-closure period" means the period of 25 years from final closure of a landfill, or so long as leachate that does not meet the performance criteria set out in Table 1 is generated at a landfill;
- (o) "run-off" means any rainwater or meltwater that drains as surface flow from developed or active landfill areas;
- (p) "run-on" means any rainwater or meltwater that drains as surface flow onto developed or active landfill areas;
- (q) "structural components" means liners, leachate collection systems, final covers, run-on and run-off systems, and any other landfill components necessary for protection of human health and the environment;
- (r) "subsoil" means a layer of lighter colour soil containing the root zone which is situated beneath the topsoil layer;
- (s) "topsoil" means the uppermost layer of soil material, containing organic matter and ordinarily moved in tillage, or its equivalent in uncultivated soils;
- (t) "unstable area" means land which may be subject to differential settling due to soil conditions, geologic or geomorphologic features, or man-made features;
- (u) "uppermost formation" means a continuous water-saturated geological stratum or strata, including but not limited to sand lenses and aquifers, that is projected to be the most probable pathway or pathways for lateral transport of leachate.

(2) Terms defined in section 1 of the *Environmental Protection and Enhancement Act* and in the *Waste Control Regulation* (A.R. 192/96) are incorporated into and become part of this Code of Practice, unless otherwise defined or modified within

this Code of Practice.

REGISTRATION

4 In addition to any information required by the Director under the *Approvals and Registration Procedure Regulation* (A.R. 113/93), the person responsible shall complete the registration form attached to this Code and submit the completed form with the required information to the Director, prior to commencing construction of a landfill.

PERSON RESPONSIBLE'S DUTY

5 The person responsible shall comply with all requirements of this Code of Practice.

SITING AND DESIGN REQUIREMENTS

6(1) Prior to construction or lateral expansion of a landfill, an investigation shall be designed and conducted by a professional geologist or engineer registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta to assess the geological and hydrogeological conditions specific to the landfill and its surrounding area.

(2) After an investigation is designed and conducted in accordance with section 6(1), a landfill design shall be prepared by a professional geologist or engineer registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, and the person responsible shall construct the landfill according to the design.

(3) Prior to construction or lateral expansion of a landfill, the person responsible shall determine the depth and volume of topsoil and subsoil available at the landfill site.

(4) Prior to construction or lateral expansion of a landfill, the person responsible shall determine storage locations for salvaged topsoil, and measures to be taken to prevent the use or loss of salvaged topsoil during storage.

(5) The landfill design for construction or lateral expansion of a Class II landfill shall include the following engineered features:

- (a) a liner and leachate collection system that provides for containment of the waste constituents and allows gathering and collection of leachate;
- (b) a groundwater monitoring system, which shall consist of at least
 - (i) 2 groundwater monitoring well locations downgradient from the landfill, and
 - (ii) 1 groundwater monitoring well location upgradient from the landfill;

- (c) a run-on control system to prevent flow onto the active portion of the landfill for events up to at least the peak discharge from the larger of a 1 in 25-year storm or snowmelt event;
 - (d) a run-off control system for the active portion of the landfill to collect and control at least the runoff water volume resulting from the larger of a 1 in 25-year storm or snowmelt event; and
 - (e) where the landfill will be located in an unstable area, measures to ensure that the integrity of the landfill's structural components will not be disturbed.
- (6)** A person responsible constructing or expanding a Class II landfill may develop a landfill design with an alternate feature to that required in section 6(5)(a) if
- (a) the following hydrogeological conditions are met:
 - (i) there is a 5 metre thick layer of a clayey deposit having a permeability less than 1×10^{-8} metres/second immediately beneath all waste disposed at or below the original grade, and
 - (ii) the permeability of the natural geologic materials beneath the clayey deposit
 - (A) is less than 1×10^{-8} metres/second to a depth of at least 5 metres beneath the clayey deposit; or
 - (B) provides equivalent protection to the requirements in subclause (A) above; or
 - (b) the person responsible provides evidence in writing to the Director that groundwater quality will not exceed the performance standards set out in Table 1 at the points of compliance.
- (7)** A person responsible constructing or laterally expanding a Class II landfill shall ensure that each groundwater monitoring well location includes 1 groundwater monitoring well designed to allow collection of groundwater samples from the uppermost formation.
- (8)** A person responsible constructing or laterally expanding a Class II landfill shall construct each groundwater monitoring well location
- (a) at least 20 metres inside the property boundary, and
 - (b) at least 10 metres but not more than 60 metres from the designed boundary of the landfill.
- (9)** The Director may, by notice in writing, require the person responsible for a Class II landfill to construct and maintain additional groundwater monitoring wells at each groundwater monitoring well location if there is more than one significant uppermost formation underlying the landfill site. The person responsible shall

comply with the notice in accordance with its terms.

(10) The Director may, by notice in writing, require the person responsible for a Class II landfill to construct and maintain additional groundwater monitoring wells where the Director is of the opinion that it is necessary due to

- (a) the size, area or hydrogeology of the landfill, or
- (b) the nature of waste proposed to be accepted at the landfill.

The person responsible shall comply with the notice in accordance with its terms.

(11) Throughout the active life and post-closure period of a Class II landfill, the groundwater quality shall meet the performance standards listed in Table 1 in the uppermost formation or formations at the points of compliance. The person responsible may apply in writing to the Director where the person responsible seeks to use alternate performance standards, providing justification for the use of the proposed alternate performance standards.

Table 1 - Performance Standards for Landfills

Chemical	Concentration (mg/L)
Chloride (Cl)	250
Sodium (Na)	200
Sulphate (SO ₄)	500
pH	6.5 to 8.5 units

(12) The person responsible constructing or expanding a Class II landfill shall ensure that no waste is deposited between the property line and the designed boundary of the landfill.

(13) The design of a Class III landfill shall

- (a) provide for containment of the waste disposed, and
- (b) include the features required in sections 6(5)(c) and (d).

(14) The Director may, by notice in writing, require the person responsible for a Class III landfill to meet the groundwater monitoring requirements of this section, where the Director is of the opinion that it is necessary. The person responsible shall comply with the notice in accordance with its terms.

OPERATING REQUIREMENTS

7(1) During construction and operation of a landfill, the person responsible shall selectively salvage and stockpile all topsoil as follows.

- (a) All topsoil stockpiles shall be located on undisturbed topsoil in a location that is not affected by the landfill operations.
 - (b) Topsoil shall not be used to meet daily cover requirements.
 - (c) All topsoil stockpiles shall be contoured, stabilized and seeded to prevent soil loss by wind and water erosion.
- (2)** The person responsible shall develop, maintain and implement an operations plan that ensures landfill operations are consistent with the landfill design and includes as a minimum:
- (a) operational procedures such as waste control, soil cover operations, surface water management and nuisance controls;
 - (b) waste acceptance procedures and policies;
 - (c) an emergency response program, covering fires, releases and medical concerns;
 - (d) for Class II landfills, a remediation program to be implemented if groundwater quality fails to meet performance standards set out in section 6(11); and
 - (e) a plan for the management of gas, which may include detection, interception, venting, or recovery.
- (3)** The operations plan for a Class II landfill shall include a program for detecting and preventing the disposal of hazardous wastes at the landfill.
- (4)** The operations plan for a Class III landfill shall include a program for detecting and preventing the disposal of hazardous and non-inert wastes at the landfill.
- (5)** Where a landfill accepts any of the following wastes, the person responsible shall include in the operations plan procedures for their special handling, as follows.
- (a) Biomedical waste shall be managed in compliance with the latest edition of *Guidelines for the Management of Biomedical Wastes in Canada*, published by the Canadian Council of Ministers of the Environment.
 - (b) Asbestos waste shall be managed in compliance with the latest edition of *Guidelines for the Disposal of Asbestos Waste*, published by Alberta Environmental Protection.
 - (c) Hydrocarbon contaminated soils shall be managed in compliance with the *Code of Practice for the Land Treatment and Disposal of Soil Containing Hydrocarbon*, published by Alberta Environmental Protection.

- (d) Contaminated sulphur and sulphur containing wastes shall be managed in compliance with the latest edition of *Guidelines for the Disposal of Sulphur Containing Solid Wastes*, published by Alberta Environmental Protection.
 - (e) Dead animals or animal parts shall be immediately covered with soil.
- (6) Where a Class II landfill accepts any of the following wastes, the person responsible shall provide specific areas for the sorting, recovery, conditioning or storage of these wastes:
- (a) empty pesticide containers;
 - (b) petroleum hydrocarbon contaminated soils;
 - (c) automobile hulks;
 - (d) scrap metal;
 - (e) sump waste from vehicle wash bays;
 - (f) used tires;
 - (g) sorted household hazardous wastes.
- (7) A person responsible shall not place bulk liquid waste or liquid waste in a container in a Class II landfill, unless
- (a) the liquid waste is domestic wastewater sewage from a community that is not served by a wastewater treatment plant;
 - (b) the liquid waste is the liquid phase separated from sump waste of car wash bays or similar operations, and is used within the landfill area for irrigation or dust suppression;
 - (c) the liquid waste is leachate, condensate from a landfill gas recovery system or contaminated run-off water from the landfill where
 - (i) no wastewater treatment plant is reasonably available to receive that liquid waste, or
 - (ii) the landfill is equipped with a leachate collection system;
 - (d) the liquid waste is in a container that is less than 5 litres in size; or
 - (e) the liquid waste is in a container used for a purpose other than liquid storage.
- (8) The person responsible for a Class II landfill shall cover wastes with 15 centimetres of soil or an alternative cover material approved by the Director to control litter, prevent spread of fires, minimize propagation of disease vectors, reduce odours, and minimize infiltration of moisture. Wastes shall be covered within

- (a) 30 days from the last cover operation at landfills that receive less than 1,000 tonnes of waste per year or serve a population of less than 1,000;
- (b) 15 days from the last cover operation at landfills that receive between 1,000 and 3,000 tonnes of waste per year or serve a population between 1,000 and 3,000;
- (c) 7 days from the last cover operation at landfills that receive between 3,000 and 5,000 tonnes of waste per year or serve a population between 3,000 and 5,000;
- (d) 48 hours from the last cover operation at landfills that receive between 5,000 and 10,000 tonnes of waste per year or serve a population between 5,000 and 10,000.

(9) If soil is used to meet the requirements of section 7(8), the person responsible is not required to apply the required soil cover during the period between November 15 and April 15 if the necessary soil cover material cannot reasonably be obtained.

(10) The Director may, by written notice to the person responsible, increase the frequency of cover required by section 7(8) where the Director is of the opinion that it is necessary. The person responsible shall comply with all terms of such notice.

(11) The person responsible for a Class III landfill shall cover wastes as necessary to control nuisances such as litter, fires, disease vectors, odours and dust.

(12) The person responsible shall remove water that accumulates in a landfill trench to avoid contact with the waste.

(13) The person responsible shall treat any leachate or contaminated surface or groundwater prior to discharging it to the surrounding environment to meet the least stringent of the following parameters:

- (a) surface water background quality,
- (b) the latest edition of *Alberta Ambient Surface Water Quality Interim Guidelines*, published by Alberta Environmental Protection, or
- (c) the latest edition of *Canadian Water Quality Guidelines*, published by the Canadian Council of Resource and Environment Ministers.

(14) The person responsible shall post signs at the landfill entrance providing the following information:

- (a) the name of the person responsible,
- (b) the landfill class,
- (c) any waste restrictions, and
- (d) telephone numbers for

- (i) the person responsible,
- (ii) the local fire department,
- (iii) Alberta Environmental Protection, Pollution Emergency Response Team (1-800-222-6514), and
- (iv) the local police department.

(15) The person responsible shall use artificial or natural barriers to control public access to the landfill and prevent unauthorized vehicular traffic and illegal dumping of wastes.

(16) The person responsible shall ensure that fires, other than those permitted by the *Waste Control Regulation* (A.R. 192/96), are extinguished immediately upon detection.

(17) The person responsible shall establish and maintain litter controls to minimize the escape of waste from the landfill and shall retrieve waste that is washed or blown onto adjacent properties or accumulates on the landfill site.

MONITORING, ANALYSIS, AND CORRECTIVE ACTION

8(1) The person responsible shall obtain and analyse representative samples from the groundwater monitoring system on an annual basis throughout the active life and post-closure period of the landfill. The person responsible shall analyse the samples for the parameters set out in section 6(11).

- (2)** The Director may, by written notice to the person responsible,
- (a) require that groundwater samples be analyzed for parameters other than those set out in section 6(11),
 - (b) change the frequency of groundwater monitoring and analysis required under section 8(1), or
 - (c) require the person responsible to install additional groundwater monitoring wells,

where the Director is of the opinion that it is necessary due to

- (d) the character of waste received at the landfill,
- (e) changes in groundwater quality at the landfill, or
- (f) other evidence that suggests an impact on groundwater quality.

The person responsible shall comply with the notice in accordance with its terms.

(3) Where groundwater at the landfill fails to meet the performance standards set out in section 6(11), the person responsible shall notify the Director and shall implement the groundwater remediation plan developed under section 7(2)(d).

- (4) Where groundwater monitoring is required,
- (a) all groundwater monitoring wells shall be protected from damage and shall be locked except when being sampled, and
 - (b) the person responsible shall clean, repair or replace groundwater monitoring wells which have been damaged or are no longer able to produce representative groundwater samples prior to the next scheduled sampling date.
- (5) The person responsible shall conduct analyses of samples collected to meet this Code in the following manner:
- (a) for water and leachate samples, in accordance with
 - (i) the latest edition of *Standard Methods for the Examination of Water and Wastewater*, published by the American Public Health Association, American Water Works Association, and the Water Environment Federation,
 - (ii) the *Methods Manual for Chemical Analysis of Water and Wastes* (1987), published by Alberta Environmental Protection, as amended from time to time, or
 - (iii) any other equivalent method accepted by the Director in writing;
 - (b) for solid wastes samples, in accordance with
 - (i) the latest edition of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, SW-846, published by the United States Environmental Protection Agency,
 - (ii) the latest edition of *Manual on Soil Sampling and Methods of Analyses*, published by the Canadian Society of Soil Science,
 - (iii) the *Interim Compilation of Test Methods under the Transportation of Dangerous Goods Regulations*, prepared by Environment Canada, or
 - (iv) any other equivalent method accepted by the Director in writing.

RECLAMATION, CLOSURE, AND POST-CLOSURE CARE

9(1) At the time of closure of the landfill or any trench, the person responsible shall install a final cover system designed to minimize infiltration and erosion. The final cover system shall meet the following requirements, and the layers shall be constructed in the following order.

- (a) The final cover system shall include a barrier layer of
 - (i) 0.60 metres of earthen material with a maximum permeability of

1 x 10⁻⁷ metres/second, or

- (ii) alternate material that will achieve equivalent protection to subclause (i).
 - (b) Subsoil shall be placed as the second layer of the final cover system and salvaged topsoil as the third layer of the final cover system as follows.
 - (i) Required subsoil shall be spread evenly over the barrier layer.
 - (ii) All salvaged topsoil shall be spread evenly over the replaced subsoil.
 - (c) The depths of the replaced topsoil and subsoil shall be equal to the depths determined at the landfill site prior to its construction, or shall meet the following minimum requirements:
 - (i) for pasture or recreational uses, 0.20 metres of topsoil and 0.35 metres of subsoil, and
 - (ii) for cultivated land use or forestry, 0.20 metres of topsoil and 0.80 metres of subsoil.
 - (d) After the subsoil and topsoil are replaced,
 - (i) water permeability and rooting in topsoil or subsoil shall not be restricted, and
 - (ii) vegetation shall be established with a suitable seed mixture compatible with the intended land use.
 - (e) The final cover system shall have a final topography that ensures that water does not pool over the landfill area, with a minimum final grade of 5 percent and a maximum final grade of 30 percent.
- (2)** The person responsible shall begin closure no later than 180 days after the landfill or trench reaches its final design elevation.
- (3)** The person responsible shall complete closure no later than 180 days after the beginning of closure as specified in section 9(2). The person responsible may apply for an extension of the closure period by providing written information to the Director indicating the reasons why closure will take longer than 180 days, and indicating steps that the person responsible will take to prevent adverse effects from the unclosed landfill or trench.
- (4)** Prior to final closure of the landfill, the person responsible shall notify the Director in writing of the intent to close the landfill.
- (5)** Following final closure of the landfill, the person responsible shall notify the Director in writing, verifying that

- (a) closure and reclamation have been completed in accordance with this Code of Practice, and
- (b) a closure and reclamation report containing the following information has been completed and placed in the operating record:
 - (i) a description of the final cover system, and the installation methods and procedures used;
 - (ii) an estimate of the maximum quantity of wastes on site over the active life of the landfill;
 - (iii) a description of how the following elements have been or will be dealt with:
 - (A) the final use of the reclaimed areas,
 - (B) drainage restoration,
 - (C) soil replacement,
 - (D) final cover slopes,
 - (E) erosion control,
 - (F) revegetation and conditioning of the site, and
 - (G) subsidence remediation.

(6) After final closure of the landfill and during the post-closure period, the person responsible shall

- (a) maintain the integrity of the final cover system and diversion and drainage structures, and make repairs to the cover system as necessary to correct the effects of settling, subsidence, erosion, or other events;
- (b) maintain, operate, and monitor the groundwater monitoring, leak detection, leachate collection, and gas venting systems, where such systems or structures are installed; and
- (c) protect and maintain surveyed benchmarks.

RECORD KEEPING

10(1) The person responsible shall establish and maintain an operating record for the landfill, and shall provide the operating record and its contents to Alberta Environmental Protection upon request. The operating record shall contain the following information:

- (a) a copy of the registration number for the landfill;
- (b) survey records and as-built records for the landfill showing the location

and development of excavations, fill areas, final grades and structural components;

- (c) the current version of the design and operations plan for the landfill;
- (d) records of the handling of any wastes accepted at the landfill under section 7(5), including the amounts accepted and disposal locations within the landfill;
- (e) all annual reports for the landfill, as required by section 10(2).

(2) During the active life of the landfill, the person responsible shall prepare an annual report for the landfill covering the calendar year from January 1 to December 31, and shall place the report in the operating record by March 31 of the following year. The annual report shall contain the following information:

- (a) the types and volume of wastes disposed of at the landfill in the preceding year, and the locations of disposal of wastes requiring special handling;
- (b) the following environmental monitoring records and their interpretation:
 - (i) groundwater monitoring, as specified in section 8(1) or (2),
 - (ii) gas monitoring as specified in section 7(2)(e), and
 - (iii) records on the quality of surface water released to the environment, as specified in section 7(13);
- (c) any remedial action taken in relation to clause (b).

(3) Following final closure of the landfill, the person responsible shall prepare the closure and reclamation report required in section 9(5)(b) and place it in the operating record.

(4) During the post-closure period, the person responsible shall compile the following information and place it in the operating record:

- (a) an annual compilation of the monitoring data listed in section 10(2)(b) and its interpretation;
- (b) an annual compilation of records of maintenance and repairs carried out under section 9(6)(a);
- (c) any remedial action taken.

The person responsible may apply to the Director to vary the requirement for annual compilation set out in clause (b), providing written justification for the proposed variation.

(5) The person responsible shall maintain the operating record until the end of the post-closure period.

REPORTING

11 The person responsible shall immediately report any contravention of this Code of Practice by telephone to the Director of Pollution Control Division at (403) 422-4505. The Director of Pollution Control Division may require the person responsible to provide a written report of any contravention.

CODE AMENDMENT

12 This Code of Practice will be reviewed at least every 5 years beginning in 2001. Alberta Environmental Protection will accept and compile written comments on the contents of this Code at any time, and will review all comments received at the next review. The Director may institute review and amendment of this Code of Practice at any time. All proposed amendments to this Code of Practice will be reviewed by government, industry, and the interested public. The Director shall have the final decision on amendments made to this Code of Practice. Amendments to this Code of Practice shall become effective when published by Alberta Environmental Protection.



**CODE OF PRACTICE FOR LANDFILLS
REGISTRATION FORM
SMALL LANDFILLS
($<10,000$ tonnes/year of waste disposed)**

1. GENERAL INFORMATION:

Person Responsible Name: _____

Mailing Address: _____

Legal Land Description for Landfill: _____

Contact Person: _____

Phone Number: _____

Fax Number: _____

2. TECHNICAL INFORMATION:

(a) Please provide the following information as specified in the Code of Practice for Landfills ("the Code"):

- (i) copies of the site investigation, landfill design and groundwater monitoring system as specified in sections 6(1) to 6(5) inclusive and section 6(13) of the Code; and
- (ii) a copy of the operations plan as specified in section 7 of the Code.

(b) If applying for an alternate design, as noted in Section 6(6) of the Code, please specify if the alternate design meets the specifications of either Section 6(6)(a) or 6(6)(b) of the Code. Please provide documentation showing that the alternate design meets the specifications in the Code.

(c) If applying for alternate groundwater quality performance standards, as specified in Section 6(11) of the Code, please provide documentation supporting the request for alternate performance standards.

3. OTHER INFORMATION

Please provide:

- (a) a copy of the development approval issued by the local municipal authority;
- (b) a written overview of the public's involvement in the siting and planning of the landfill.
- (c) where appropriate, a copy of the field approval issued under section 19(1)(c) of the Public Lands Act; and
- (d) the rationale for the landfill, in writing.

I acknowledge that I have reviewed a copy of the Code of Practice for Landfills, and that I am bound by the provisions of this Code and any subsequent amendments to it.

Person Responsible Signature

Date

For office use only:

Date Received: _____

Registered by:

_____	_____	_____
Director's Signature	Title	Date

Registration Number: _____