

FACTSHEET 2 LANDFILLING SOLID OR SEMI-SOLID WASTES

July 2011

Code of Practice for the Slaughter and Poultry Processing Industries

Frequently Asked Questions (FAQs)

Q. Who does this Code of Practice (Code) apply to?

A. This Code applies to operators that slaughter and sell poultry or red meat for human consumption <u>and</u> produce wastes that may be discharged to the environment.

An example of waste discharge to the environment is burying solid or semi-solid wastes in an on-site landfill. You do not need to register under this Code if the solid or semi-solid wastes are picked up by a rendering company, or brought to an authorized landfill.

Exception

If you slaughter livestock or poultry strictly for your personal consumption and not for sale, or produce less than 5 tonnes of live weight killed (LWK) red meat per year, or less than 1.5 tonnes of live weight killed (LWK) poultry meat per year in your farm slaughter facility, you are exempt from the requirements of the Code and do not need to register. You are still required to ensure that your activities do not harm the environment.

5 tonnes (5,000 kgs.), is approximately 8 cows, 179 goats, 91 sheep, or 50 hogs. **1.5 tonnes** (1,500 kgs.), is approximately 708 chickens or 136 turkeys. These animal numbers are estimates, based on average animal weights. Actual weights should be used, if possible, to determine whether or not your facility meets the exemption threshold.

Q. What if I already have a permit authorizing my waste discharges?

A. You may keep your permit and continue doing business (following your permit requirements) or

you may opt to cancel your permit and register under the Code.

1. Introduction

If you operate a red meat or poultry slaughter facility (also called an abattoir), you produce **solid wastes**: feathers, hides, offal, bones, carcasses or parts of carcasses, and liquid waste, or wastewater. If the blood, fats, oils and grease are separated from the wastewater, these are termed **semi-solid wastes** and may be disposed of in the same manner as solid waste.

The Code allows solid or semi-solid wastes to be disposed of by landfilling, incinerating, or composting and land applying the compost product.

Landfilling of solid or semi-solid wastes from slaughter facilities is regulated by the **Code of Practice for the Slaughter and Poultry Processing Industries** (Code) under the Waste Discharge

Regulation of the *Environmental Management Act*.

You can download a copy of the Code as well as access background information by following this link:

http://www.env.gov.bc.ca/epd/industrial/regs/codes/s/slaughter/index.htm.

This factsheet is intended to assist slaughter facility operators in understanding the landfilling requirements under the Code. For legal purposes, the *Environmental Management Act*, the Waste Discharge Regulation and the Code shall prevail. Other provincial and federal legislation, guidelines and best management practices that are not described in this document may also apply to slaughter operations.

Please note the Canadian Food Inspection Agency (CFIA) requires producers, transporters, and

processors to obtain permits for transporting, accepting and disposing of specified risk material (SRM). For further information consult the CFIA website at:

http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/enhren/enhrene.shtml.

The Provincial Agriculture Land Commission (ALC) also has requirements for the handling of red meat wastes and SRM on land within the Agricultural Land Reserve (ALR). For further information consult the ALC website at:

http://www.alc.gov.bc.ca/alr/alr main.htm.

For the purposes of the Code, a landfill is a burial site or trench used *only* for the disposal of solid or semisolid wastes from a slaughter facility. You are not allowed to dispose of any other kind of waste in the landfill, such as domestic garbage or yard waste.

2. Docking stations for mobile slaughter facilities

Docking stations for mobile slaughter facilities must follow the same requirements as fixed facilities. The person discharging the waste is required to register under the Code. This may be the docking station operator or the mobile facility operator. In most cases, it will be the docking station operator, because the mobile facility operator would have to register each site where they operate.

3. Registration and Recording Requirements

If you operate a slaughter facility that introduces wastes to the environment, you must:

 Register with the Ministry of Environment (MOE). Registration forms are available online via the following website link: http://www.env.gov.bc.ca/epd/industrial/regs/codes/slaughter/index.htm.

Forms can be filled in on screen and printed, or printed then filled in, or obtained from the Regional MOE office, and sent by registered mail, courier or fax to MOE Permit Administration in Victoria together with payment of the annual fee.

 Keep records of your annual production (in tonnes of live weight killed meat per year). If you are unable to weigh live animals, you can estimate live weight from carcass weight using Table 1.

Table 1 Carcass Weights as Percentage of Live Weight	
Species	Carcass Weight
Cattle and Bison under 30 months	50 % of live weight
Cattle and Bison over 30 months	40 % of live weight
Hogs	55 % of live weight
Sheep and Goats	60 % of live weight
Poultry	74% of live weight

Van Kleeck, R., Investment Agriculture Foundation, 2006

- Keep records how the solid or semi-solid wastes are disposed of (e.g., landfill). Note: if the solid or semi-solid wastes are picked up by a rendering company, or brought to an authorized landfill, you are not required to register for that solid waste discharge.
- Confirm that any plans that may be required under this Code have been prepared, e.g., groundwater monitoring and assessment plan, vector control plan or landfill closure plan.
- Keep all required records and plans for at least 10 years and make them available to an officer upon request within two days.
- Notify a director in writing within 30 days after there is any change in information provided in your registration.

4. Landfill Categories

The Code defines two types of landfills for slaughter waste based on quantity:

- Landfills that receive 5,000 kilograms per hectare per year or less of solid or semi-solid wastes <u>and</u> are located in areas with an average precipitation of 600 millimetres per year or less.
- Landfills that receive more than 5,000 kilograms per hectare per year of solid or semi-solid wastes, <u>or</u> are located in areas with an average precipitation of more than 600 millimetres per year).

5,000 kilograms would be the amount of solid or semi-solid wastes produced from approximately 17 cattle, 230 sheep, or between 5,000 to 9,000 chickens (estimated averages).

5. Requirements for All Landfills

If you operate a landfill to bury solid or semi-solid wastes from your slaughter facility, you must comply with the following requirements:

- You must control dust and odour caused by the operation of the slaughter facility and the landfill.
- Every time you add a new batch of solid or semisolid waste to the landfill, you must cover it with at least 0.15 meter (approx. 6 inches) of lowpermeability soil. Low-permeability soil has a hydraulic conductivity of 1x10⁶ centimetres per second. Clay would be a type of low permeability soil.
- Between uses, the landfill must always be covered by an impermeable cover that will keep both precipitation (rain, snow, etc.) and vectors out of the landfill. Depending on circumstances, this could be as simple as a tarp, plywood, etc.

A vector is any living organism that could transfer pathogens that cause disease from one place to another. This could be wildlife such as birds, rodents, larger scavengers like raccoons or bears, insects, domestic animals such as dogs and cats, or even humans.

- You must develop a plan for keeping vectors out of your landfill. Measures could include a suitable type of cover (as above paragraph), or fencing against bears and other wildlife, etc.
- You must keep records of where the landfill is located, the dates on which you add solid or semi-solid wastes to it, and the types and quantities in kilograms of wastes deposited.

- A landfill must be closed by covering it with at least 1 meter (approx. 39 inches) of lowpermeability soil. The soil covering must extend at least 0.3 meter (approx. 1 foot) above ground level, and at least 0.5 meter (approx. 20 inches) beyond the edges of the landfill.
- You must not add more waste to a landfill that has already been closed.

6. Additional Requirements for Low Volume/ Low Precipitation Landfills

If you wish to landfill 5,000 kilograms per hectare per year or less of solid or semi-solid wastes and your slaughter facility is located in an area with an average precipitation of 600 millimeters per year or less, then you don't need to engage a Qualified Professional to evaluate your landfill if the landfill meets the following minimum requirements:

- It is located on a site that has a slope of less than 0.5%.
- It is less than 2 meters wide.
- It is at least 1 meter below ground level.
- The bottom of the landfill is at least 4 meters above the seasonal high water table.
- It is located at least 50 meters from the boundaries of the property.
- It is located at least 100 meters from any surface water.
- It is located at least 300 meters from a residence, hotel, restaurant, school, church, public park, water supply well or water supply intake.
- It is located at least 30 meters from another existing or closed landfill.
- It is not located within the 200-year flood plain.

If you are unable to meet any of the above requirements, you must engage a Qualified Professional to evaluate the landfill and design a groundwater monitoring and assessment plan. You are required to comply with this plan, retain it and make the plan available to an officer within two days of a request.

7. Additional Requirements for High Volume/ High Precipitation Landfills

If you wish to landfill *more* than 5,000 kilograms per hectare per year of solid or semi-solid wastes <u>or</u> your slaughter facility is located in an area with an average precipitation of *more than* 600 millimetres per year, then you need to

 Engage a Qualified Professional to evaluate your landfill and design a groundwater monitoring and assessment plan. You are required comply with the plan.

At least 3 months before you intend to close your landfill, you must

- Notify the director of the MOE through your regional Environment Protection Office of the intended closure of the landfill;
- Have a landfill closure plan prepared by a Qualified Professional. You must comply with this plan.

You are required to comply with all plans that are required to be completed under the Code, retain them and make them available to an officer within two days of a request.

A Qualified Professional is a person who

 is registered in British Columbia with a professional organization, is acting under that organization's code of ethics, and is subject to disciplinary action by that organization,

and

 through suitable education, experience, accreditation and knowledge may reasonably be relied upon to provide advice within his or her area of expertise. That area of expertise must be applicable to the duty or function to be performed.

Qualified Professionals may be found, for example, through the following professional associations:

the Association of Professional Engineers and Geoscientists of BC (APEGBC), http://www.apeg.bc.ca/members/dirsearch.html.

the BC Institute of Agrologists (BCIA), http://bcia.com/index.php and

or through an Internet search for landfilling consultants.

For more information, consult our website at http://www.env.gov.bc.ca/epd/industrial/regs/codes/slaughter/index.htm

or send an e-mail to the Environmental Standards Branch at <u>eqb@Victoria1.qov.bc.ca</u>.