

Ministry of Environment

FACTSHEET 1 LIQUID WASTE

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 a waste discharge to the environment is disposing of wastewater via a drain/tile field. Do not register under this Code if wastewater is discharged to an authorized municipal sewage system.

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 from 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 <u>estimates</u>, <u>based on average</u> 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 liquid waste

(termed wastewater), which includes wash water from processing, clean-up and hand-wash stations, as well as domestic sewage from washrooms located in the slaughter facility. This wastewater can contain blood, fats, oils, grease, micro-organisms, cleaners and other substances and must be disposed of in a way that does not harm the environment. If the blood, fats, oils or grease are separated from the wastewater, these are termed semi-solid wastes and may be disposed of in a similar manner as the solid wastes (see factsheets 2, 3 and 4 for solid waste management options).

The discharge of wastewater from slaughter facilities into the environment 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*. This factsheet is intended to assist slaughter facility operators in understanding the requirements for wastewater discharges under the Code. For legal purposes, the *Environmental Management Act*, the Waste Discharge Regulation and the Code shall prevail.

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

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

Other provincial and federal legislation, guidelines and best management practices that are not described in this document may also apply to slaughter facilities. For example, 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: <u>http://www.inspection.gc.ca/english/anima/heasan/di</u> <u>semala/bseesb/enhren/enhrene.shtml</u>.

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

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

The Code defines two sizes of slaughter facilities, based on the quantity meat produced, and the volume of wastewater produced:

 Category A: If you produce *less than 60 tonnes* live weight killed red meat per year (approx. 95 - 100 head of beef) or *less than 40 tonnes* live weight killed poultry per year (approx. 18,800 broiler chickens),

and

discharge *less than 5 cubic meters* (approx. 1100 Imp. gallons) of wastewater per day, you operate a **Category A** facility.

2. **Category B:** If you produce *60 tonnes or more* live weight killed red meat per year or *40 tonnes or more* live weight killed poultry per year,

or

discharge 5 or more cubic meters of wastewater per day, you operate a **Category B** facility.

2. Docking stations for mobile slaughter facilities

Docking stations for mobile slaughter facilities will fall into one of the two categories above and 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: <u>http://www.env.gov.bc.ca/epd/industrial/regs/cod</u> <u>es/slaughter/index.htm</u>.

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.

• Keep records of the maximum amount of wastewater discharged to the environment from the slaughter facility in cubic meters per day.

Note: discharge of wastewater into an authorized municipal sewage system is not considered a "discharge to the environment"; you are not required to register for that discharge to the municipal system.

| Table 1 | | |
|--|---------------------|--|
| Carcass Weights as Percentage of Live Weight | | |
| Species | Carcass Weight | |
| Cattle and Bison | 50 % of live weight | |
| under 30 months | | |
| Cattle and Bison | 40 % of live weight | |
| over 30 months | | |
| 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 of how the wastewater is disposed of (e.g., into a tile field, or by irrigation).
- Confirm that any plans that may be required under this Code have been prepared (e.g., nutrient management plan, groundwater monitoring and assessment plan, or vector control plan).
- Keep all required records and plans for at least 10 years and make them available to an officer within two days of a request.
- Notify a director in writing within 30 days after there is any change in information provided in your registration.

4. General Wastewater Discharge Requirements

For Category A and B facilities, you must:

• Ensure that no liquid waste is discharged directly into groundwater or into a watercourse.

For the purposes of the Code, a watercourse is defined as any area that has surface water at any time of the year. This includes rivers, streams, springs and lakes, but also swamps and marshes, ravines, creeks and ponds that dry out in the

Note: This summary is solely for the convenience of the reader. The current legislation and regulations should be consulted for complete information.

summer and any drainage ditches leading into them.

- Ensure that liquid waste used for irrigation is not applied to land used for growing crops for human consumption.
- Control dust and odour from the slaughter facility.

5. Subsurface discharge

Category B Facilities

In addition to the general requirements above, for Category B facilities where the wastewater is disposed of by subsurface discharge, you must:

- Ensure the discharge does not surface or cause the groundwater table to be raised to the surface,
- Conduct inspections to ensure that the discharge site (tile field) is operating correctly at all times. Signs that a subsurface drainage field is not operating correctly could include water rising to the surface, odour, septic tank backing up, etc.
- Ensure that any subsurface wastewater disposal system constructed after September 30, 2007, is designed by a Qualified Professional (QP) and installed according to that design.

All correctly operating subsurface drainage fields constructed before September 30, 2007 and receiving wastewater discharge are deemed to be authorized if registered under the Code.

• If the discharge or groundwater surfaces (i.e., the tile field has failed), you must:

a) stop all wastewater discharges, and you may resume discharging only if

- i) the discharge is carried out in accordance with a revised or new subsurface wastewater disposal system design that fixes the problem that caused the system to fail, and
- ii) the design is prepared by a qualified professional.

Wastewater containing domestic sewage

Category A and B facilities may discharge wastewater containing domestic sewage into the subsurface of the ground if:

- the domestic sewage source is from the slaughter facility,
- the discharge does not surface or cause the groundwater table to be raised to the surface,
- the person regularly inspects the site to ensure the discharge has not surfaced, and
- the subsurface wastewater disposal system is designed by a QP and installed according to that design.

6. Wastewater irrigation (Surface discharge)

Category A and B facilities may use wastewater for irrigation, as long as it is not applied to land growing crops for human consumption.

Category B Facilities

In addition to the requirement above, wastewater from Category B facilities used for irrigation must:

- not contain more than 10 mg per litre of fats, oil or grease;
- not exceed a carbonaceous biochemical oxygen demand (CBOD) concentration of 45 mg per litre;
- not contain more than 60 mg per litre of total suspended solids (TSS);
- not contain more than 1,000 total coliform organisms per 100 ml of wastewater and not more than 200 total fecal organisms per 100 ml of wastewater.

Sampling and Analysis

Before the wastewater is applied to the land for the first time, a sample of the wastewater must be analyzed by a laboratory registered with the Canadian Association for Environmental Analytical Laboratories and in accordance with the requirements of the latest version of the Field Sampling Manual issued by the MOE.

• The analysis must meet the results in the following Table 2:

| Table 2 | |
|---|---|
| Fats, oil and grease (FOG) | - below 10 mg/L of liquid waste |
| Carbonaceous Biochemical Oxygen Demand(CBOD) | - below 45 mg/L of liquid waste |
| Total Suspended Solids(TSS) | - below 45 mg/L of liquid waste |
| Total Coliform Organisms (TCO) | - below 1,000 organisms per 100 ml of liquid waste |
| Total Faecal Organisms (TFO) | - below 200 organisms per 100 ml of liquid waste |

• This sampling and analysis must be repeated every 2 weeks during the period when liquid waste is being used for irrigation.

Records of results of the sampling and analysis must be kept for 10 years by the person who discharges the wastewater to the land.

Category B facilities must ensure that:

• A nutrient management plan must be prepared by a Qualified Professional. This plan must include an analysis of the possible effect on the ground caused by the application of the liquid waste, a description of what the land is used for and how the public might have access to it.

You must 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.

Irrigation by Farmers

Slaughter facility operators who are also **farmers** can use their wastewater for irrigation without further requirements as long as:

- The total discharge volume does not exceed 100 cubic meters (approx. 100,000 litres or 22,000 lmp. gallons) per year.
- It is applied at agronomic rates. This means that no more nutrients are applied to the land than can be used by the plants growing on it, so that surplus nutrients are not leached into water systems.

For the purposes of the Code, a farmer is a person who operates a farm on land classified as farmland under the *BC* Assessment Act, i.e., land that has "farm status".

Wastewater containing domestic sewage

For Category A and B facilities, you may discharge wastewater containing domestic sewage onto the surface of the ground if:

- the domestic sewage source is from the slaughter facility, and
- the requirements in section 8 (1 through 4) are complied with.

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, <u>and</u>
- 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:

For nutrient management planning:

the Association of Professional Biology [APB], http://www.apbbc.bc.ca

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

For subsurface wastewater disposal systems:

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

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

or e-mail the Environmental Standards Branch at <u>envprotdiv@victoria1.gov.bc.ca</u>.