
SlaughterSafe Training

Participant Guide

In Support of Class D and E Licensing
under the B.C. Meat Inspection Regulation

June 2012
v. 3

Ministry of Health and the BC Food Processors Association



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1 Welcome to SlaughterSafe Training

1.1 Introduction

Welcome to SlaughterSafe, a mandatory training course designed exclusively for livestock and poultry producers who want to get a Class D or E licence, and competent slaughterpersons who intend to provide slaughter services to Class D and E licence holders. It has been developed in consultation with producers based in Haida Gwaii, Bella Coola and Powell River to ensure it reflects the realities of farms located in remote areas of the province.

Congratulations for choosing to make a very important contribution to your community by producing safe, local food! It is your responsibility to ensure the meat and meat products you produce are safe, and free from contamination that can cause serious illness. By taking this course, you are taking an important step in learning about food safety and ensuring that your customers can have full confidence in your operation.

The focus of this training is to understand the critical food safety points in the slaughter process that you need to think about and manage so that meat does not become contaminated. The course also touches on other issues that producers need to be aware of when slaughtering animals in British Columbia. For example, the course touches on waste disposal requirements and good animal welfare practices, and provides information about where you should look for more information.

This course does not teach participants how to slaughter. Slaughtering an animal correctly is a skill and a responsibility. Food safety, the welfare of the animal, and meat quality all depend on the slaughter operator. **If you are not a competent slaughterperson, you should not be attempting to slaughter your animals on your own.** Instead, you should hire a competent slaughterperson, who has also completed SlaughterSafe, to do this job for you and/or to mentor you until you can acquire the necessary skill, knowledge and experience.

The rest of *Section 1 – Welcome to SlaughterSafe Training* provides general information and an overview of what you can expect from this course and the licence application process. *Section 2 – Pre-Class Reading* includes detailed reading materials that you must review before the course. *Section 3 – Resources for Writing the Food Safety Plan* includes a number of materials that will help you develop a food safety plan for your farm or proposed slaughter site. *Section 4 – Appendices* provide useful information and resources that will help you meet your obligations as a slaughter establishment in British Columbia.

1.2 Background

Whenever livestock or poultry are slaughtered in B.C. to produce meat for human consumption, the operator of the slaughter facility, farm or slaughter site must have a provincial or federal licence. The exemption from this rule is when farmers slaughter their own animals for the personal consumption of their household, or get a licensed slaughter operator to do this slaughter for them on their farm.

Provincially licensed slaughter establishments in B.C. are licensed under the B.C. Meat Inspection Regulation (MIR), and are part of a “graduated licensing system.” A number of different licences are available under this system for different sizes and types of slaughter establishments. More details about the graduated licensing system are included in *Section 2 – Pre-Class Reading*.

Two new types of slaughter licences were introduced under the graduated licensing system in 2010:

1. Class D

- Allows on-farm slaughter of 1-25 animal units – 1 animal unit = 1000lbs (454kg) – combined live weight) annually for direct sale to consumers at the farm or temporary food market.
- Allows retail sales to secondary food establishments (e.g., restaurants and meat shops).
- Allows Class D licence holders to slaughter their own or other people’s animals.

2. Class E

- Allows on-farm slaughter of 1-10 animal units annually for direct sale to consumers at the farm or a temporary food market.
- Prohibits retail sales to secondary food establishments (e.g., butcher shops and restaurants).
- Allows Class E licence holders to slaughter only their own animals.

Meat produced under a Class D and E licence can be sold only within the boundaries of the regional district where the licensed farm or slaughter site is located. Class D licences can be issued only in the 10 regional districts that have been “designated” as rural remote areas, and where no licensed Class A or B slaughter facilities are operating. Class E licences are available across the province, but will be limited in nondesignated areas where Class A and B facilities are providing slaughter services.

1.3 The Training Day

This is a one-day course and is a mandatory part of the D and E licensing process. The morning session is in the classroom and on a local farm in the afternoon. By the end of the course, you will have gained the food safety knowledge required to qualify for a D or E licence, and learned how to design and complete a food safety plan for your own farm. These are two critical steps in the licence application process described below.

1.3.1 Morning

The morning classroom session will focus on food safety concepts that are critical to writing your food safety plan, and the D and E licensing process. Additional requirements relating to animal welfare, waste disposal and managing specified risk materials (SRM) will also be discussed. You will then start writing your own food safety plan, following guidelines provided by your facilitator.

Although you may not be able to complete your plan during the morning, you will leave with a clear picture of how to complete it. Some participants will complete their food safety plan during the morning session and some will not. **It is not a race.** What matters is that you think through your plan as you write it. If you do not finish it in class, take the time to complete it at home. You can write the plan by hand or use a computer. If you have questions, please contact your facilitator.

1.3.2 Afternoon

After lunch, we will drive to a local farm where the producer will walk through his/her food safety plan. This session will be an opportunity for participants to observe, comment on and discuss the site preparation and compare it to what is written in the food safety plan. It will also be an opportunity for you to discuss methods and approaches with other participants.

Please note that the focus of the on-farm session is to observe and discuss the points in the slaughter process that are critical to ensuring your meat is safe to eat. The training will not focus on slaughtering techniques, and will not involve an actual slaughter.

1.4 The Training / Licensing Process

Licence applicants must complete all of the following steps in order to get a Class D or E licence:

1. Register for and complete the SlaughterSafe course.
2. Complete a food safety plan for your farm.
3. Have a site assessment completed by your regional health authority.
4. Complete a Class D/E application form.
5. Submit your application package to your regional health authority.

Each of these steps is described in detail below and illustrated in *Figure 1: The Class D and E Licence Application Process*.

Note: Before completing these steps, applicants in nondesignated areas must first complete a Class E feasibility study to determine if they are eligible to apply for a licence. If an applicant's Class E feasibility study is approved, he/she can proceed with applying for a licence. Applicants in designated areas do not need to complete a Class E feasibility study.

1.4.1 Details about the Steps in the Training / Licensing Process

1. Register for and complete the SlaughterSafe course.

Completing SlaughterSafe is mandatory for all Class D and E licence applicants **and** for all slaughter operators who plan to offer services for hire to Class D and E licence holders. The course is designed to help you think through how to ensure meat produced on your farm is safe, and how to document your approach. Your food safety plan is a written description of how you carry out the slaughter of an animal in a way that minimizes the risk of meat becoming contaminated. By the end of the course, you will have:

1. A partially completed food safety plan.
2. Two copies of your SlaughterSafe training certificate.
3. A blank application form. See *Section 4 – Appendices*.

2. Complete a food safety plan for your farm.

Due to time constraints, it is unlikely that you will complete your entire food safety plan during the one-day course. When you return to your farm or proposed slaughter site, complete your draft food safety plan and make any necessary changes before you schedule a site assessment with your regional health authority.

If you are planning to hire someone to perform the slaughter for you, remember that they must have completed SlaughterSafe, too. You may want to encourage them to take SlaughterSafe with you, and/or collaborate with them when developing your food safety plan – to make sure you understand and agree on how you want slaughter to take place on your farm.

3. Have a site assessment completed by your regional health authority.

Having a site assessment completed by your regional health authority is mandatory. You can schedule a site assessment any time after completing your SlaughterSafe training, but you must ensure your food safety plan is complete before the site visit occurs.

The purpose of the assessment is to walk through and discuss your food safety plan, answer any further food safety questions you might have, and make sure there are no remaining food safety concerns that need to be addressed. **You do not need to slaughter an animal during the site assessment.**

If you are using water in the slaughter process, you must demonstrate that you have access to a sufficient quantity of potable water, or water that is free from bacteriological contamination. Before issuing a licence, regional health authority staff will ask for results from a recent water sample (within the past year); take a water sample themselves; or require that you have documented a process for treating your water (e.g., boiling, chlorination and filtration) in your food safety plan.

4. Complete a Class D/E application form.

This step is simple and self-explanatory. You will get a copy of the application form during the course. A sample has also been included in *Section 4 – Appendices*.

Make sure that you have read and understood all the licence conditions listed on the back of the application form. You should also confirm that you have dated and signed your form.

5. Submit your application package to your regional health authority.

Your application package must contain all of the following:

1. A copy of your final food safety plan.
2. A completed Class D/E application form.
3. A copy of your SlaughterSafe training certificate.

You may submit your application package in person (e.g., during your site assessment), by fax, mail, or email attachment to your regional health authority. If sending your materials by email, you will need to scan the documents to make sure that your signature is included on them.

Regional health authority contact information is included in *Section 4 – Appendices*. It is also available on the Ministry of Health (MOH) Website (<http://www.health.gov.bc.ca/protect/meat-regulation>) where you will also find electronic copies of all application materials.

Your regional health authority will review your application package to make sure it is complete and to ensure the final version of your food safety plan is acceptable. They may contact you to discuss your plan if they have any concerns.

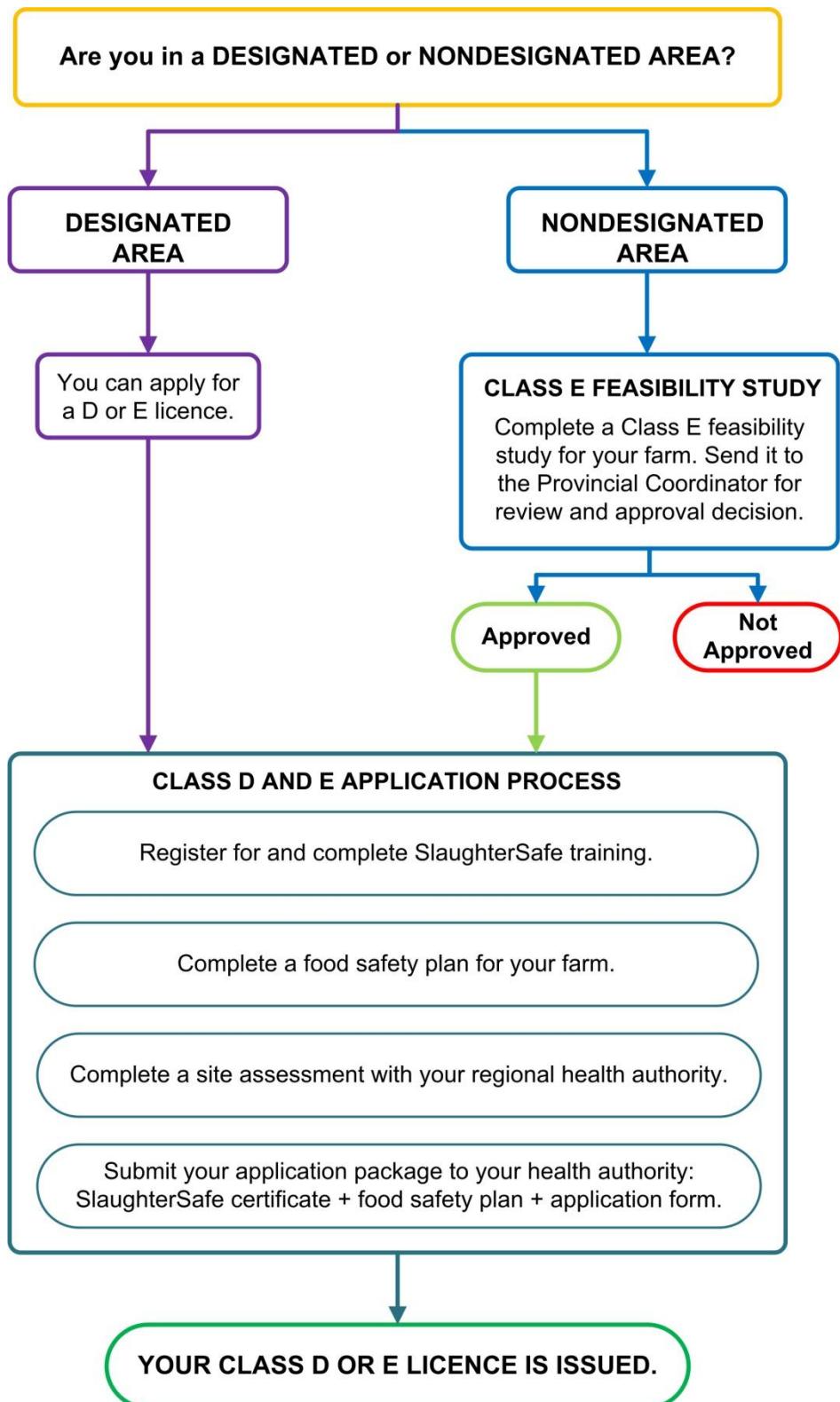
6. Class D or E licence is issued.

If your package is complete and acceptable, you will be issued a Class D or E licence. You will receive a **Class D/E Licence to Operate** from your regional health authority.

In designated areas, Class D and E licences are valid for five years and must be renewed on expiry. In nondesignated areas, licences will be issued for five years **or less**, and additional licence conditions may apply. Additional Class E licence conditions are described in *Section 4 – Appendices*.

All Class D and E licences will be issued to one individual (or spouse) and are nontransferable to another person or property.

The Class D and E licensing system is further explained on the Ministry of Health's Meat Inspection website (<http://www.health.gov.bc.ca/protect/meat-regulation/>) and in *Figure 1: The Class D and E Licence Application Process*, below.

Figure 1: The Class D and E Licence Application Process

2 Pre-Class Reading

2.1 Basic Concepts Covered in Section 2

In preparation for your training day, please read the content in this section and answer the questions in the *Reading Worksheet (Table 1)* that starts on the next page. In the morning session, your facilitator will conduct a class discussion based on these questions.

Note: Your written comments will **not** be evaluated in terms of being correct or complete, and are for your use only.

The content in this section includes:

- Graduated Licensing
- Oversight and Enforcement
 - Site Visits
 - Enforcement
- Food Safety
 - Hygiene
 - Pest Control
 - Sanitizing Equipment and Work Surfaces
 - Meat Storage and Handling
 - Preventing Chemical and Physical Hazards
- Keeping Track
 - Labeling
 - Record Keeping
 - Product Recalls
- Animal Welfare
- Animal Waste Management
- Management of Specified Risk Material (SRM)
 - What Tissues are Considered to be SRM
 - Age Determination
 - On-Farm SRM Disposal
 - Transporting SRM
- Tagging

2.2 Reading Worksheet

As you read through the content in this section, answer the questions in the table below. Your answers will help during the class discussion at the beginning of the morning session and are for your use only. They will not be read, tested or evaluated by anyone else.

Table 1: Reading Worksheet

Reading Resource	Question	Answer
1. Graduated Licensing	a. What are the two classes of licences created in the 2010 MIR amendments? b. Is the regional district you live in eligible for a Class D licence?	
2. Licence Application Process	a. Who issues the Class D or Class E licence? b. What are the three elements you must submit as part of your application package for a Class D or E licence? c. What is the additional step you must take before you can apply for a Class E licence in the nondesignated areas of B.C.?	
3. Food Safety Plan	a. What is the main purpose of a food safety plan? b. Who prepares a food safety plan? c. Who is responsible (and liable) for the ongoing implementation of your food safety plan? d. What benefits do you see in having a food safety plan in place for your farm/slaughter site?	

Reading Resource	Question	Answer
4. Hygiene	a. Why is personal hygiene an important part of the slaughter process? b. When should you sanitize your slaughter tools and work area? c. If an employee or helper arrives at your premises to help with slaughter and is obviously ill, what should you do?	
5. Pest Control	a. What types of pests do you need to be aware of? b. When should you check for the presence of pests? c. Whose responsibility is it to eliminate pests from the slaughter area?	
6. Labeling	a. What four items are required by the MIR on all meat labels? b. What extra labeling is required for meat and meat products slaughtered by a Class E licence holder? By a Class D licence holder?	
7. Record Keeping	a. Why is record keeping important? b. What records are you required to keep?	
8. Processing	a. What level of processing is allowed for red meat? b. What level of processing is allowed for poultry?	
9. Animal Welfare	a. What is the most important animal welfare consideration at slaughter? b. What are three acceptable methods of stunning? c. Who enforces animal welfare standards in B.C.?	

Reading Resource	Question	Answer
10. Management of Specified Risk Material (SRM)	a. What parts of an animal are considered SRM? b. When is an SRM permit required?	
11. Help	a. Whom do I contact if I have animal health concerns? b. Whom do I contact for information regarding my D/E licence? c. Whom I contact for information about the requirements for specified risk material (SRM) management and permitting? d. Whom do I contact for information about waste management on my farm?	

2.3 Graduated Licensing

British Columbia has a system for ensuring that meat produced in the province is safe for consumers, and for providing enough slaughter and meat processing capacity for the entire province. The Meat Inspection Regulation (MIR) ensures that:

- Animals are humanely handled and slaughtered.
- Carcasses are processed in a clean environment and transported safely if required.
- Meat is packaged and stored in ways that reduce contamination risks.

In 2009, a remote sites consultation project was announced by the then Ministry of Healthy Living and Sport, now the Ministry of Health. This consultation resulted in recommendations for new licensing options for small-scale producers in areas where Class A and B licensed slaughter capacity is limited or unavailable. This led to the creation of a new **graduated licensing system**.

The graduated licensing system is intended to improve market opportunities and slaughter services for livestock and poultry producers in remote rural areas of B.C., while continuing to support the viability of provincially licensed Class A and B facilities.

It has several different types of licences designed to meet the diverse needs of livestock producers, retailers and consumers across the province. Only Class D and E licences are issued by regional health authorities. Class A and B licences are issued by the British Columbia Centre for Disease Control (BCCDC).

Inspection services for Class A and B facilities are currently provided by the Canadian Food Inspection Agency (CFIA) on contract to the Province. The CFIA will transition out of this role on December 31, 2013. A new provincially run meat inspection system will be designed and fully operational by that date.

Figure 2: Graduated Licensing System under B.C.'s Meat Inspection Regulation and Table 2: Comparison of New and Existing Licences available under the Graduated Licensing System below compare the various types of licences available under the graduated licensing system. For more information, see:

- Frequently Asked Questions: <http://www.health.gov.bc.ca/protect/meat-regulation/faqs.html> (or in Section 4 – Appendices)
- Ministry of Health's Meat Inspection website:
<http://www.health.gov.bc.ca/protect/meat-regulation/>
- Meat Inspection Regulation:
http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/10_349_2004

Figure 2: Graduated Licensing System under B.C.'s Meat Inspection Regulation

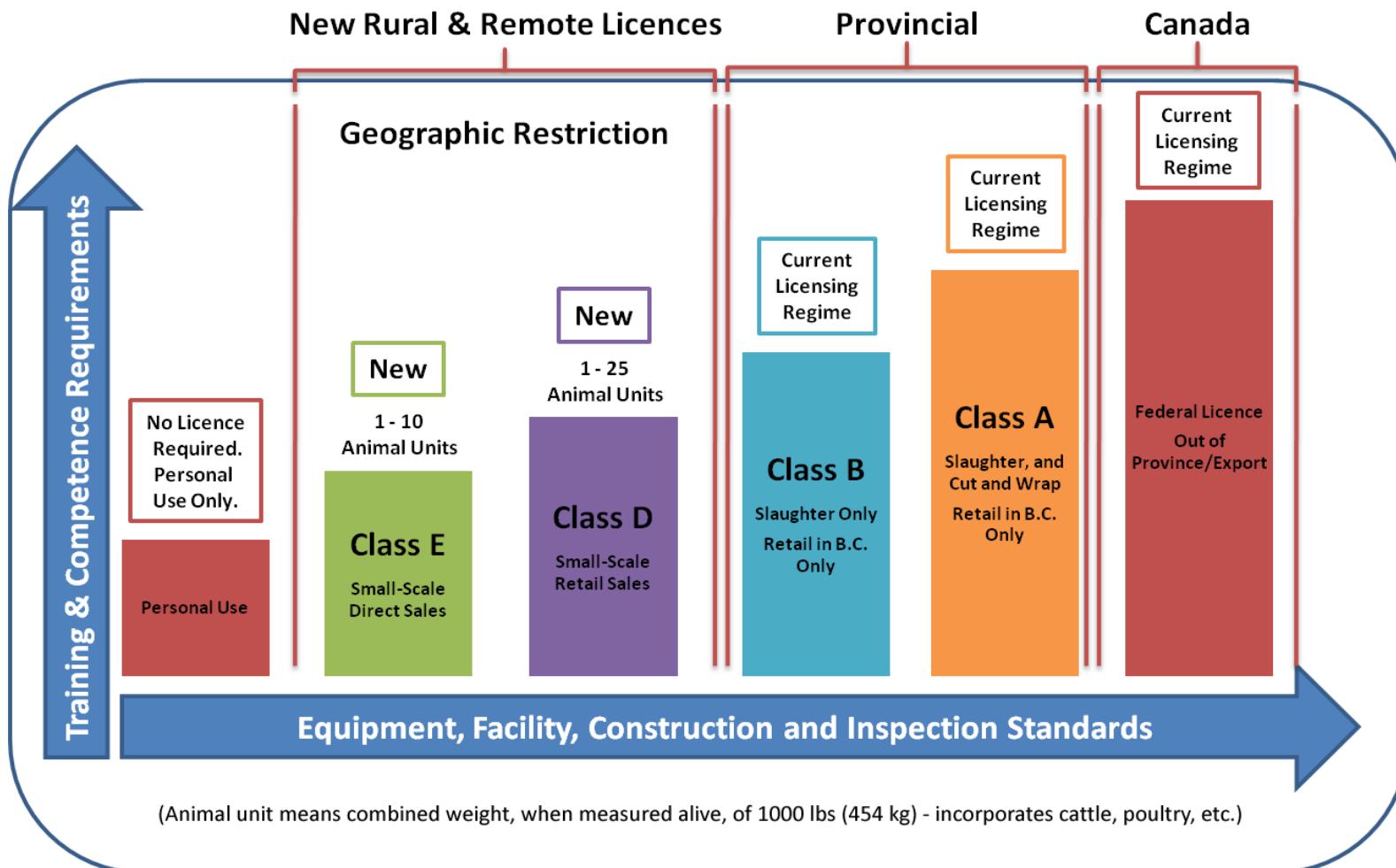


Table 2: Comparison of New and Existing Licences available under the Graduated Licensing System

Licence Type	Licensing Status	Activities Permitted	Sales Permitted	Geographic Scope	Number of Animal Units*	Oversight
Federal Licence	Current and continuing	Slaughter and processing	Wholesale, retail and farm direct**	B.C. and out of province	Unlimited	Pre- and post-slaughter inspection of each animal
Class A	Current and continuing	Slaughter and processing	Wholesale, retail and farm direct	B.C.	Unlimited	Pre- and post-slaughter inspection of each animal
Class B	Current and continuing	Slaughter only	Wholesale, retail and farm direct	B.C.	Unlimited	Pre- and post-slaughter inspection of each animal
Class C***	Phased out	Slaughter only	Farm direct only	B.C.	Unlimited	No inspection
Class D	New	Slaughter only	Retail and farm direct	Sales restricted to regional district where meat is produced	1-25	Periodic site assessments and audit of slaughter records
Class E	New	Slaughter only	Farm direct only	Sales restricted to regional district where meat is produced	1-10	Periodic site assessments and audit of slaughter records
Personal Use	No licence required	Slaughter and processing	None	No sales permitted	Unlimited	None

***1 animal unit** means combined weight, when measured alive, of 1000 lbs (454 kg) of meat.

****Farm direct** means direct sales from the licence holder to a consumer or customer from their farm, or a temporary food market.

*** **No new Class C applications** are being accepted. Existing Class C licences are being phased out.

2.4 Oversight and Enforcement

2.4.1 Site Visits

Regional health authority staff will conduct random site visits to ensure Class D and E licence holders are operating in accordance with their food safety plan. They will also complete an audit of your paperwork and records to ensure proper traceability procedures are being followed and licence conditions are being met. You should anticipate that your farm could be visited at any time by an environmental health officer.

2.4.2 Enforcement

Regional health authorities will use a “progressive enforcement” approach. This collaborative approach begins with education and dialogue between producers and health authorities about food safety and regulatory requirements. If further complaints are received or an offence is repeated, education may be followed by warnings, then orders to stop illegal activities, and in extreme circumstances, prosecution under the *Food Safety Act* and/or removal of a licence.

Class D and E licence holders are liable for ensuring that all procedures and requirements in their food safety plan are followed, even if slaughter is being performed by someone other than the licence holder. For this reason, you must ensure anyone performing slaughter on your farm has thoroughly read and understood your food safety plan.

2.5 Food Safety

As a food producer, your responsibility is to ensure the food produced at your farm is safe for human consumption. This means you must take all necessary steps to prevent contamination of foodstuffs with disease-causing organisms, chemical contamination or physical hazards.

In addition to preventing carcass contamination, you must make sure there is a way to trace back meat and meat products that originated at your farm, in the event of a food-borne illness. Please see *Section 2.6 – Keeping Track* for more guidance on how to ensure product traceability.

This section provides basic information about important ways to ensure food is produced and handled safely on your farm or slaughter site. Please refer to the resources in *Section 3 – Resources for Writing the Food Safety Plan* for details. The food safety plan writing guide, in particular, outlines the questions you should be asking about your operation, and the expectations of health authority staff who will assess your plan and slaughter site.

2.5.1 Hygiene

Hygiene is a set of practices that prevents the spread of disease-causing organisms. It is not the same as cleanliness, though cleanliness supports good hygiene. Slaughter and meat-handling hygiene, personal hygiene and pest control are all important aspects of hygiene.

Even healthy people carry micro-organisms capable of causing food-borne illnesses on their body. By touching parts of your body, such as your nose, mouth, or hair, or your clothes, you can spread micro-organisms from your hands to the food.

2.5.2.1 Methods of Maintaining Good Personal Hygiene

- Wear appropriate clothing.
 - Wear clean clothing appropriate for the task – e.g., long sleeves are a poor choice when eviscerating poultry.
 - Wear closed-toe shoes.
 - Remove any jewellery (except medical bracelets).
 - Use aprons or waterproof clothing for comfort, if you wish.
- Maintain personal health and cleanliness.
 - People with contagious or transmittable diseases should not be present at slaughter.
 - Smoking and consuming food or drink should be prohibited in all areas where food is handled to limit contact with potentially contaminated surfaces and minimize distractions during slaughter.
 - Operators and personnel must maintain good personal cleanliness.
- Wash hands frequently.
 - Hands are a critical source of microbiological and chemical contamination. Frequent, thorough and correct hand washing is very important when preparing or handling food and can significantly minimize the risk of food contamination. You can find a guide to hand washing in *Section 4 – Appendices*.

2.5.2 Pest Control

Pests are a food safety risk because they can contaminate food with pathogens. For this reason, care must be taken to ensure pests cannot come into contact with meat at any time. Types of pests you should consider include:

- Insects: flying (e.g., adult moths, flies and larvae) and crawling (e.g., beetles, weevils and cockroaches).
- Rodents: mice (field/house) and rats (roof, Norway).
- Birds: pigeons, crows, starlings and gulls.
- Other mammals: skunks, raccoons, cats, dogs and bats.

You must develop systems to ensure pests are kept away from the slaughter area, and do not come in contact with animals or carcasses during slaughter. Effective pest control includes the consideration of pest prevention, control and monitoring.

2.5.2.1 Prevention

Once pests have established themselves on your farm or in farm buildings, it is difficult to control and eliminate them. Therefore, it makes sense to focus on preventing an infestation. For example, if you are slaughtering **indoors**, consider eliminating food sources and other attractants such as nesting or perching sites, and pest-proofing buildings.

If you are slaughtering **outdoors**, choose a time and/or a place for slaughter that makes it less likely that pests will be present. For example, you might choose to slaughter during colder winter months or in the early morning when outside temperatures are low and insects are less likely to be present.

2.5.2.2 Control

Besides preventing the establishment of pests, effective pest control should include active measures to remove pests already present.

2.5.2.3 Monitoring

You must conduct regular inspections of your field or farm to check for pest infestation. If there is evidence of an infestation, you should take immediate action to bring the situation under control.

2.5.2.4 A Note on Pesticides

Wherever you can, use professional pest-control operators. If you are using pesticides on your farm or slaughter site, ensure your food safety plan includes detailed information about what pesticides you will be using, how they will be used, and where and how they will be stored.

2.5.3 Sanitizing Equipment and Work Surfaces

Dirty equipment or work surfaces are a potential source of carcass contamination. **Equipment and work surfaces should be cleaned thoroughly, and sanitized before and after slaughter.** Knives and hand tools should also be sanitized regularly during slaughter to prevent contamination of the finished carcass. You can use a pot of water heated to 82°C (180°F) on a hotplate and kept near the slaughter area to sanitize knives and hand tools during slaughter.

It is important to understand the difference between cleaning and sanitizing. To **clean** means to remove dirt or soil. To **sanitize** means to kill the disease-causing germs on utensils, equipment and work surfaces.

In your food safety plan, describe how, and how frequently, you will carry out cleaning and sanitizing of the following:

- Physical structures such as floors and walls.
- Counters/food contact surfaces.
- Equipment and utensils/implements.
- Waste disposal facilities and equipment.

To sanitize equipment, you should familiarize yourself with the proper methods of breaking down the equipment for cleaning. These methods will depend on the type and size of equipment used.

After cleaning equipment and work surfaces thoroughly, use water that is heated to 82°C (180°F) and/or a food-safe chemical sanitizing solution on equipment and work surfaces. It is recommended that sanitizers contain one of the following: chlorine, iodine or ammonia. This can be as simple as a correct bleach solution. For more information, see *Section 4 – Appendices*.

2.5.4 Meat Storage and Handling

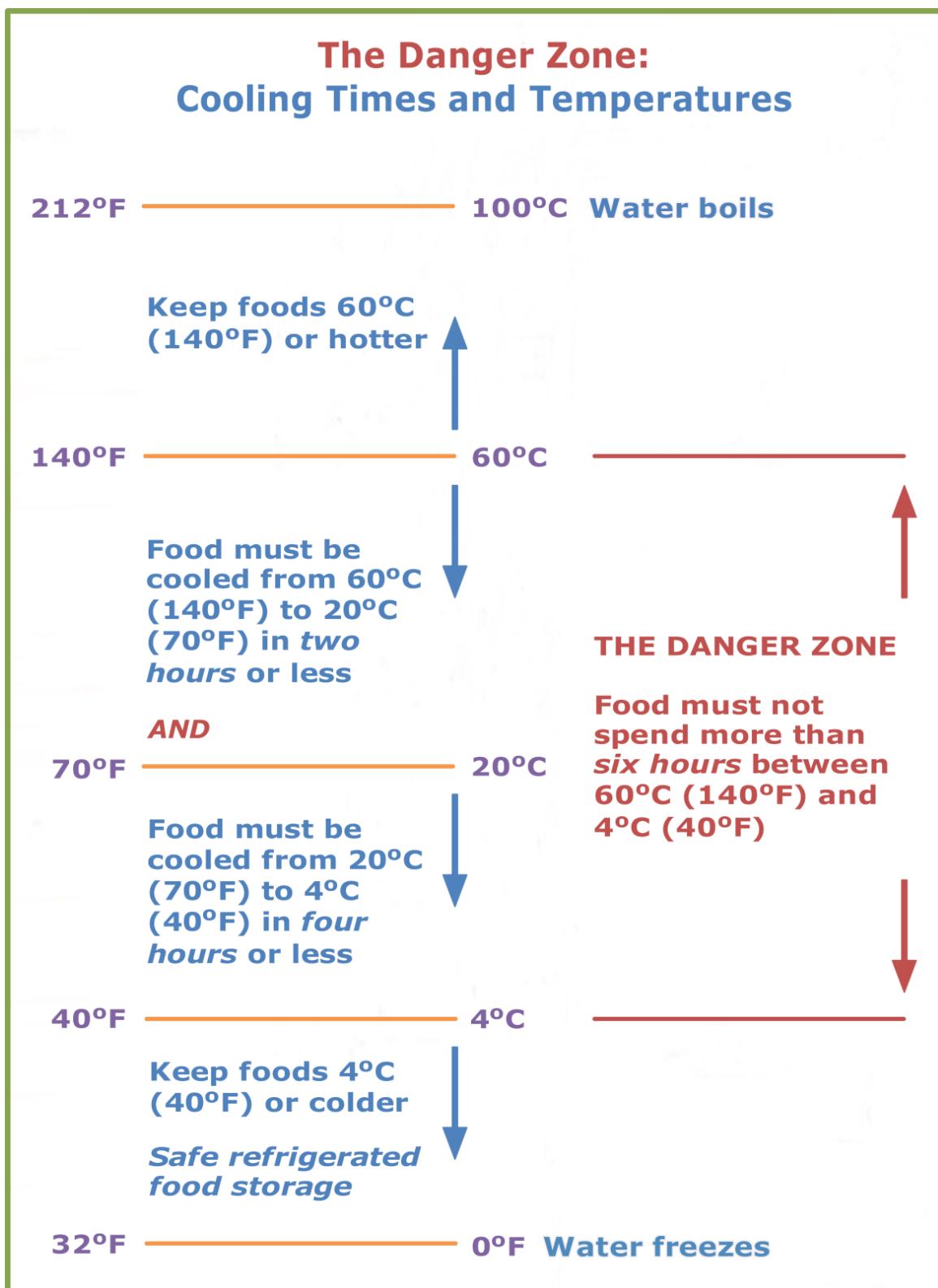
Meat storage and handling must be carried out in a way that minimizes the potential for contamination and growth of organisms that can cause food poisoning. Meat handling should be as limited as possible, and procedures to hold meat at 4°C (40°F) should be followed. See *Table 3: Meat Storage and Handling*, and *Figure 3: The Danger Zone: Cooling Times and Temperatures*.

During slaughter, disease-causing organisms can be transmitted to the meat from “dirty” parts of the animals like hides or the inside of the intestines. This can occur through incorrect slaughter practices, such as accidental puncture of the gut, or incorrect sanitization of equipment. **Possessing the skill, knowledge and experience to slaughter properly and avoid these mistakes is critical to preventing contamination during slaughter.**

Table 3: Meat Storage and Handling

Food Safety Consideration	D Licence	E Licence	Rationale
Level of activity Food safety considerations related to the number or volume of animals you are slaughtering that may require specific attention are: <ul style="list-style-type: none"> • space • cleaning materials • equipment • waste management • cooling capacity 	Assumption is that daily volume is low, but slightly higher than with a Class E. For example: <ul style="list-style-type: none"> • < 5 large animal units • < 100 chickens Class D licences allow a larger number of total numbers of animals to be slaughtered and thus there is a wider range of possible daily volumes.	Assumption is that daily volume is low, for example: <ul style="list-style-type: none"> • < 2 large animal units • < 50 chickens 	As daily volumes increase, this may place additional demands on the process and increase the potential for contamination. Your food safety plan should reflect the requirements created by the planned daily volume of animals slaughtered at your site. If daily volumes increase after the initial food safety plan has been approved, you may need to revise your food safety plan.
Farm-to-Plate Time / Temperature Issues	Due to larger daily volumes, you must maintain written documentation of measured meat storage temperatures (<4 °C) (<40°F). In many cases a cooler will be required.	You are required to maintain adequate cooling (<4 °C) (<40°F). Daily volumes are less likely to require a cooler.	Additional documentation for D licences confirming temperature controls is required because of the extra step (and thus time), involved in retail or restaurant sales. Also, a larger number of animal units may put additional strain on cooling capacity. Meat that has reached a chill temperature of 4°C (40°F) or less may be unrefrigerated for two hours or less in transport to point of further handling. Otherwise, transport must be refrigerated.

**Figure 3: The Danger Zone:
Cooling Times and Temperatures**



2.5.5 Preventing Chemical and Physical Hazards

2.5.5.1 Chemical Hazards

Chemical hazards are caused by a chemical that is harmful when present in food. These can be:

- Naturally occurring – e.g., toxins produced by microorganisms or moulds.
- Intentionally added – e.g., through incorrect use of food additives like preservatives, or inappropriate packaging materials.
- Unintentionally present – e.g., through incorrect use of cleaners, sanitizers, pesticides, or oils and greases from equipment.

You must make sure any chemicals are used correctly and stored safely away from meat/carcasses, or any area where the meat/carcass is being handled.

2.5.5.2 Physical Hazards

Physical hazards can injure a consumer if present in food. You must ensure potential sources are kept away from the slaughter area, and measures are taken to prevent physical hazards from coming in contact with meat (e.g., glass from light bulbs, thermometers, windows and mirrors; metal from equipment, screws, nails, nuts, bolts and shavings; wood or plastic fragments; stones, etc.).

2.6 Keeping Track

In addition to preventing contamination as outlined in *Section 2.5 – Food Safety*, another critical public health safeguard is the ability to determine the origin of food that may be related to known incidents of food-borne illness. The ability to trace meat and meat products to their farm of origin – and to other establishments involved in processing meat – is critical. Food labeling and maintaining accurate sales records provide the primary means of traceability.

2.6.1 Labeling

Class D and E licence holders are required to label all meat and meat products (which must be processed at a licensed processing establishment). They must also keep a number of important records related to slaughter activities occurring on their farm and under their licence.

Pursuant to section 17 of the Meat Inspection Regulation, Class D and E licence holders must label all raw meat/carcasses or packages containing meat products originating from their farm with the following information:

- The name and address of the farm or facility.
- A description of the contents, including the date product was packaged.
- The net weight or volume.
- The licence number issued to the farm or facility.

Raw meat or packages containing raw meat products originating from a **Class E** establishment must include the following:

- “Class E – Not government inspected. – Not for resale. For sale only in the regional district of <insert name of regional district in which your farm is located>.”

Raw meat or packages containing raw meat products originating from a Class D establishment must include the following:

- “Class D – Not government inspected. For sale only in the regional district of <insert name of regional district in which your farm is located>”

You must submit a sample of your label with your food safety plan. A copy of this label will be kept on file by the regional health authority.

2.6.2 Record Keeping

Accurate record keeping is critical to ensuring operators can keep track of the animals being slaughtered, the volume of meat being produced, where meat is sold and who is consuming it. You are responsible for understanding and meeting all record-keeping requirements as part of your licence obligations. Examples of the following records are included in *Section 4 – Appendices*.

2.6.2.1 Record-Keeping Requirements for all Class D and E Licence Holders

1. Sales Records

These records are critical for demonstrating that licence conditions are being followed, and ensuring clients can be easily contacted in the case of a product recall. Copies of all invoices should also be kept to verify information in the sales record. Critical information to record includes:

- The type of product.
- The date of sale.
- The quantity sold (by weight).
- The customer name and contact information.

2. Complaint Log

A detailed log of all customer complaints is required. This includes contact information, a brief description of the complaint, and actions taken to address the complaint.

3. Specified Risk Materials (SRM) Records

All Class D and E facilities that plan to slaughter cattle must follow federal SRM record keeping (and other) requirements. A detailed description of SRM requirements, including permitting for the transport of SRM, is provided in *Section 2.9 – Management of Specified Risk Material (SRM)*.

Whenever SRM material is transported – including carcasses that still contain SRM (e.g., a carcass from an animal greater than 30 months of age with the spinal cord intact) – records must be kept that include the following information:

- The date of SRM removal and staining.

- The name and address of the person who transferred the SRM or the carcasses to another location, the transfer date, and a description of how the material/carcasses were transferred.
- The name and address of the person(s) who transported and received the SRM or carcasses (e.g., the operator of the butcher shop that receives the SRM).
- The name of the dye used to identify the SRM or the carcasses.
- The numbers of the approved identification tags on the carcasses.

If you choose to permanently dispose of SRM or carcasses containing SRM on your farm/property, you must keep records that include:

- The combined weight of SRM removed from the carcass.
- The date and method of SRM destruction or disposal.

All SRM records must be kept for 10 years.

2.6.2.2 Additional Record Keeping Requirements for Class D Licence Holders

Class D licence holders can slaughter other people's animals, and are permitted to sell to retail or secondary food establishments. In these cases, Class D licence holders must keep additional records.

1. Receiving Record / Animal Health Assessment

Since Class D licence holders are permitted to slaughter other people's animals – animals that may not previously be known to them – operators must keep a receiving record and animal health assessment checklist for each incoming animal. See *Section 4 – Appendices* for a sample checklist.

2. Temperature Control Log

Additional documentation confirming temperature control is required for Class D licence holders because of the extra step, and therefore time, involved in transporting meat and meat products for retail or restaurant sales.

2.6.2.3 Additional Record-Keeping Requirements for Class E Licence Holders

Because Class E licence holders may slaughter only their own animals, they must be able to demonstrate ownership of all animals slaughtered at their establishment. This may be a bill of sale (e.g., if the animal was purchased at auction), a birth record (if the animal was born on the farm), or other records clearly showing that the animal was raised on the farm.

2.6.2.4 Auditing of Slaughter Records

Licence applicants are responsible for understanding and meeting all record-keeping obligations under a Class D or E licence. During the course of a follow-up site assessment, health authority staff will request copies of all the above records to review. If records are inaccurate or incomplete, health authority staff may require corrective measures, and will use a progressive enforcement approach to address the violation.

2.6.3 Product Recall Plan

If an investigation determines the need to recall meat or meat products produced at your farm or slaughter site, the following steps will be followed:

1. The regional health authority will notify you, the licence holder.
2. You must contact all consumers who have purchased potentially contaminated product from your facility.
3. You must document all efforts taken to contact consumers, including dates that you contacted them.
4. You must submit the results of your recall to your regional health authority.

If you receive a report of illness from one of your customers directly, you must immediately inform your regional health authority and then follow the above steps.

2.7 Animal Welfare: Humane Slaughter under B.C.'s Class D and E Licences

"Animal welfare" is the physical and psychological well being of animals. Consumers are placing a greater emphasis not only on food safety assurances, but also on good animal welfare assurances. Knowledge that animals have been humanely managed at all points before entering the food chain is increasingly influencing marketplace preferences. There is a public expectation that food animals should not experience undue distress and should be treated with respect. There is also a provincial responsibility to protect against unnecessary suffering. Section 9.1(1) (b) of the Meat Inspection Regulation states that:

"A person must not operate a rural slaughter establishment unless the person ensures that... an animal in the rural slaughter establishment is kept before slaughter and slaughtered in a humane manner."

Class D and E licence holders are also expected to adhere to generally accepted practices for the humane handling and slaughter of animals under the requirements of the B.C. *Prevention of Cruelty to Animals Act*. Class D and E licence holders will be held responsible for the humane slaughter and care of animals processed under their authority. As an operator of a Class D or E establishment you:

- Must have a clear understanding of animal welfare and your responsibility in providing proper care and handling.
- Must be aware of and comply with all regulations pertaining to the care and slaughter of animals.
- Must ensure all involved in the care and slaughter of animals – including employees, contractors and family members – are properly trained in animal handling and care.
- Must report to the proper authorities any suspected instances of neglect or abuse.

2.7.1 Slaughter Requirements

To ensure a humane death for an animal at slaughter, two things must happen:

1. A person competent in slaughter must stun the animal using an approved, humane method. Correct stunning causes the animal to become immediately insensible.
2. Stunning must be rapidly followed by bleeding, to ensure death before the animal regains sensibility. No animals, other than poultry or rabbits, shall be partially or wholly hoisted or suspended prior to being rendered insensible.

Sensible: Conscious and responsive to painful stimuli.

Inensible: The animal may still breathe and have a pulse, but is not responsive to painful stimuli and does not exhibit reflex responses (e.g., blinking when the eye is touched). Other signs include a floppy head and a limp flaccid tongue. Insensibility may be a temporary condition dependant on the method of stunning; however, it must last longer than the time taken to kill the animal.

Dead: No pulse, breathing or movement other than bloating due to accumulation of intestinal gas.

Table 4: Methods of Stunning

Acceptable Methods	Suitable for	Maximum Stun-to-Stick Interval
Correctly placed head shot with firearm of appropriate calibre and appropriate ammunition.	Cattle, bison, sheep, goats, pigs, and other small ruminants. See <i>Section 4 – Appendices</i> for a guide to appropriate selection and use.	60 seconds
Penetrating or nonpenetrating captive bolt stunner.	Appropriate models exist for all livestock and poultry. See <i>Section 4 – Appendices</i> for details.	60 seconds
Electrical stunning.	Possible for all livestock and poultry. See <i>Section 4 – Appendices</i> for details.	60 seconds
Rapid decapitation with appropriate restraint (killing cone).	Poultry and rabbits only.	Exempt from a two step stun/kill process.
Manual blunt force trauma for small animals only.	Poultry and rabbits.	60 seconds
Ritual slaughter under Islamic or Jewish law.	See information in <i>Section 4 – Appendices</i> for appropriate methods.	
Other Methods		
If the slaughter method you want to use is not listed in the green section above, it may not be humane or legal. You must consult with the Ministry of Agriculture before using it.		
Animal Health Centre, Ministry of Agriculture		(604) 556-3003 toll free: 1-877-877-2474

Note: For more information on animal welfare standards, see *Section 4 – Appendices*.

2.8 Animal Waste Management

The Ministry of Environment (MOE) has established the ***Code of Practice for the Slaughter and Poultry Processing Industries*** (referred to in this document as the “Code of Practice”). It addresses discharges to the environment from slaughter and poultry processing activities under the *Environmental Management Act* and the Waste Discharge Regulation. The Code of Practice is at: http://www.env.gov.bc.ca/epd/industrial/regulations/codes/slaughter/pdf/slaughter_july4_07.pdf

The *Code of Practice for the Slaughter and Poultry Processing Industries* applies to all operators that slaughter and sell poultry or red meat for human consumption and discharge waste to the environment. Examples of waste discharges include disposing of wastewater via a drain/tile field or burying solid waste in an onsite landfill. The *Environmental Management Act* prohibits the introduction of waste into the environment, “in such a manner or quantity as to cause pollution.” Following the Code of Practice (including registration) provides authorization for an exemption from the *Environmental Management Act* for such discharges.

Waste management is not covered in detail in the SlaughterSafe course. You are responsible for ensuring you understand your waste disposal obligations and you practise acceptable waste management on your farm. Information to help you is in *Section 4 – Appendix K: Slaughter Waste Disposal at Class D and E Rural Slaughter Establishments*.

Provincial technical guidance documents and fact sheets on the Ministry of Environment website may also help you interpret the Code of Practice:

<http://www.env.gov.bc.ca/epd/industrial/regulations/codes/slaughter/index.htm>.

For general waste management questions, contact the Environmental Protection Division of the Ministry of Environment: (250) 387-9921. For specific questions, contact your local Ministry of Environment office. See *Section 4 – Appendices* for regional contact information.

2.9 Management of Specified Risk Material (SRM)

Note: Federal SRM requirements and this section only apply to you if you are slaughtering cattle.

Beginning on July 12, 2007, enhanced safeguards came into effect to help eliminate bovine spongiform encephalopathy (BSE), or “mad cow disease,” from Canada. Certain cattle tissues considered capable of transmitting BSE are known as specified risk material (SRM). Federal regulations require SRM to be removed from all cattle slaughtered for human consumption. SRM is also banned from all animal feeds, pet food and fertilizers.

2.9.1 What Tissues are Considered to be SRM?

In cattle **under 30 months of age (UTM)** the only part of the animal considered to contain SRM tissues is a portion of the **small intestine** called the **distal ileum**. If the distal ileum or entire intestinal tract is removed, the carcass is no longer considered to be SRM.

In cattle **over 30 months of age (OTM)** tissues that are considered to contain SRM include:

- Parts of the head:
 - skull
 - brain, including trigeminal ganglia (nerves attached to the brain)
 - eyes
 - tonsils
- A portion of the small intestine (the distal ileum).
- The spinal cord, including the dorsal root ganglia (the nerves attached to the spinal cord).

If all tissues containing SRM are removed, the carcass is no longer considered to be SRM.

2.9.2 Handling of SRM

When handling or removing SRM from an animal, you must take measures to prevent cross-contamination of other animals/carcasses. Use separate tools for handling SRM or cutting the head and spinal column of OTM animals. If you are slaughtering several animals in one day, slaughter OTM animals last.

2.9.3 Age Determination

Accurately determining an animal's age (under or over 30 months of age) is critical to properly identifying and managing SRM.

When slaughtering your own animals, you should maintain birth records or other documentation that can be used to accurately determine each animal's age. When receiving cattle from another producer, Class D operators must ensure they have a way of accurately determining the age of each animal.

A birth certificate issued by the Canadian Cattle Identification Agency (CCIA) is one way to verify an animal's age. More information about obtaining a birth certificate from the CCIA is available in the following brochure, *Age Verification and the Canadian Cattle Industry*:

http://www.canadaid.com/about_us/documents/CCIAbrochureavaddress2010.pdf.

In the absence of a birth certificate, age can be determined by looking at an animal's teeth pattern or "dentition." A visual explanation is in *Section 4 – Appendices*.

2.9.4 On-Farm SRM Disposal

When disposing of SRM or carcasses containing SRM on your farm, you must destroy or permanently contain the material in a way that prevents its consumption by other ruminants (e.g., cattle and bison), and prevents the release of BSE into the environment.

Containment of SRM material, such as burial on your farm, must comply with the provincial *Code of Practice for the Slaughter and Poultry Processing Industries*. See *Section 2.8 – Animal Waste Management*, above. Destruction of SRM by incineration must comply with the Code or Practice.

See *Section 2.6 – Keeping Track* or *Section 4 – Appendices* for a description of record-keeping requirements related to on-farm SRM disposal.

2.9.5 Transporting SRM

If you transport SRM tissue or carcasses from which SRM has not been removed (e.g., an OTM carcass that still has the spinal cord attached) from your farm for disposal or further processing at a cut-and-wrap facility, you must obtain an SRM transport permit from the Canadian Food Inspection Agency (CFIA). Getting an SRM permit is a straightforward process.

For more information about the permit application process and other SRM handling requirements, please contact your local CFIA office. See *Section 4 – Appendices* for contact information. You may also wish to visit the CFIA website entitled *Enhanced Animal Health Protection from BSE: Requirements for Cattle Auction Markets*:

<http://www.inspection.gc.ca/english/animal/diseases/bseesb/enhren/catbovmare.shtml>.

See *Section 2.6 – Keeping Track* or *Section 4 – Appendices* for a description of record-keeping requirements related to the transport of SRM.

2.10 Tagging

The Health of Animals Regulation requires that **all bison and cattle** (live animals) that are being moved from the farm of origin must have a Canadian Cattle Identification Agency (CCIA) tag. CCIA tags are available through retailers of farm supplies, veterinarians and other industry organizations. Further information on cost and availability of tags can be obtained by contacting tag manufacturers.

Class D operators who are slaughtering other people's animals should ensure all animals they receive have a CCIA tag.

For more information, please see the CCIA website:

http://www.canadaid.com/about_us/about_us.html

You can also contact the CCIA head office:

Canadian Cattle Identification Agency
Suite 300
5735 – 7th Street NE
Calgary Alberta
T2E 8V3

toll free: (877) 909-2333 (BEEF)
regular phone: (403) 275-2083
fax: (403) 275-1668

Sheep also require tags if they are moved from their farm of origin. Sheep tags can be purchased through the Canadian Cooperative Wool Growers Limited. To order tags contact: 1-800-567-3693.

3 Resources for Writing the Food Safety Plan

The SlaughterSafe course is designed to guide you through the development of a food safety plan for your farm or proposed Class D or E slaughter site.

The materials in this section will help Class D and E operators who are developing a food safety plan. They will also be of interest to individuals providing slaughter services to Class D or E licence holders, or anyone interested in food safety planning and management in the slaughter process. The materials in this section include:

- An example of a food safety plan.
- A writing guide to the food safety plan.

If you are applying for a Class D or E licence, you are required to have a site assessment completed by your regional health authority. Health authority staff will use a **Food Safety Plan and Site Assessment Evaluation Form** to assess your food safety plan and your proposed slaughter site prior to issuing a licence. A copy has been included in this section for your information only: ***you do not have to complete this yourself.***

3.1 Example of a Food Safety Plan

The delivery of safe food to consumers requires specific attention at every step from farm to plate.

The food safety plan guides your slaughter activities and subsequent handling of carcasses in a way that keeps food as safe from contamination as possible. Your food safety plan is intended to support you in the pre-slaughter, slaughter and post-slaughter handling of animals and meat, in order to identify and address possible sources of food contamination.

The generic plan included on the following pages is not intended to be used “as is” for any farm-specific food safety plan. The processes and procedures included in this plan should not be considered the only way to achieve food safety. There are other approaches that will work just as well.

Your plan should reflect the uniqueness of your farm, but it must address all the elements of the food safety plan template.

Table 5: Example of a Food Safety Plan

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD	
Element	Albert's Farm
1. Premises	<ul style="list-style-type: none"> • A new site is chosen for each batch of birds. • The site is well drained, away from a sewage disposal field (to protect the birds) and away from a well (to protect the water supply). • The site is inside a fenced area, with mowed grass. • The slaughter day and time of day is weather dependent, i.e. no rain, no heavy wind, cool temperatures. • Slaughter happens only in daylight. Slaughter is planned to not exceed daylight hours. • Birds are confined in cages. • Poultry slaughter and evisceration are done in a separate area 350 ft. from barn area. • Slaughter, scalding, and de-feathering are done outdoors on a cement pad under a roofed area. • Pre-chill, evisceration, post-chill, draining, bagging, weighing and labeling are done inside the facility. • A plastic top work table is used. • Water is supplied from a tested, certified water source. • All equipment is power washed at the beginning of the slaughter day. Power washing is done in such a way that no dirt is washed on to equipment. • All equipment is sanitized with bleach. • Kill cones are used for killing, a poultry knife for stunning/bleeding, and ropes for further hanging.

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Albert's Farm
2. Storage and Distribution of Meat	<ul style="list-style-type: none"> • Carcasses are stored in a freezer for a minimum of 24 hours. • The freezer is big enough to handle all carcasses. • Each carcass is labeled with weight, slaughter date and farm name and contact information. • Customers come to the farm to pick up their birds.
3. Equipment	<ul style="list-style-type: none"> • The equipment includes killing cones, killing knives, a scalding tank, a rotary plucker, chill tanks, a counter, cutting boards, knives, utility scissors, a lung scraper, a hose and pressure nozzle, hanging strings and hooks, food-grade plastic bags, plastic bins (to transport product to cooler), and a cooler. • The outdoor slaughter equipment is scrubbed down and hosed clean after each slaughter day. • The interior of the facility (all surfaces that come into contact with product including chill tanks) is scrubbed down with 1:10 bleach solution and hard surface cleaner and then rinsed before and after slaughter activity. All small tools are pre-washed and post-washed with bleach solution and cleaner then well rinsed. Floors are hosed and cleaned with bleach solution and surface cleaner and then hosed again. • The cooler is cleaned pre- and post-use. • Knives are sharpened before slaughter. • Rubber Maid totes for chilling stages of operation are all cleaned before slaughter and after every 15 birds during slaughter. • A stainless steel drum-style chicken plucker is pressure washed before and after each slaughter day. • A tarp or garbage bag is placed under the plucker to collect feathers. • The plastic top table is sanitized before and during the slaughter day as necessary. • The plastic cutting board is sanitized with a hot water/ bleach solution (4L/30ml) between each bird. • A propane burner and scalding kettle are available. • A basic H soap exists for wetting birds and scalding at a solution of 20ml/12L water.

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Albert's Farm
(3. Equipment, continued)	<ul style="list-style-type: none"> • Block ice is used for chilling. • A cooler with ice is used for organ meats. • Paper towels are on hand. • Single-use plastic bags for organ meats and for bagging chilled birds are on hand. • A garbage can with a garbage bag is in place for offal. • Rain gear is scrubbed down before killing.
4. Personnel	<ul style="list-style-type: none"> • Slaughter is done by farm owners. • Any personnel involved in occasional help are trained to the farm's level of cleanliness and procedures. • Appropriate clothing and equipment are used. • The person killing and plucking wears aprons/rain gear. The person cleaning wears cotton coveralls that can be bleached. • Hair is covered. • Shoes have closed heels and toes. • No one comes to a slaughter day unless they are healthy. The slaughter date may be postponed and medical advice sought.
5. Sanitation and Pest Control	<p>Products used:</p> <ul style="list-style-type: none"> • Bleach at full strength or 1:10 dilution for floors or walls. For food contact surfaces and equipment it is a 50-200 ppm concentration. • All-purpose hard surface cleaner. • Dish washing soap. <p>Pre-processing:</p> <ul style="list-style-type: none"> • Hot water tank is turned on.

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Albert's Farm
(5. Sanitation and Pest Control, continued)	<ul style="list-style-type: none"> • Holding tanks are sprayed with dilute bleach solution and rinsed well. • Counter surfaces are cleaned with all-purpose cleaner and dilute bleach, and rinsed well. • Trays, knives, cutting boards and other equipment are washed. • Tanks are filled with water and several blocks of ice are added to each tank. • Gut buckets and garbage cans are set up. • Plucker and scalding tank are sprayed with a diluted bleach solution and rinsed well. • Cones are sprayed down. <p>Post-processing:</p> <ul style="list-style-type: none"> • Bins are re-cleaned every 15 birds. • Tanks are drained and sprayed with very hot water, then with all-purpose cleaner and diluted bleach. Interiors of tanks are scrubbed and rinsed several times with very hot water. • All knives, cutting boards and equipment are washed in dish soap and a bleach solution (rinsed well and air dried). • Counter surfaces, outsides of tanks, door knobs, taps, etc., are cleaned with all-purpose cleaner and diluted bleach, and rinsed well. • The hand sprayer is disconnected from the hose nozzle. Using a small brush, the sprayer, end of nozzle and hose are cleaned with soap and a bleach solution. They are rinsed well. • Floor mats are removed, sprayed with all-purpose cleaner and hosed off (air dried on fence). • Floor is drenched with bleach and all-purpose cleaner solution, then scrubbed down and hosed off with hot water. <p>Pest control:</p> <ul style="list-style-type: none"> • Door to facility is kept closed at all times.

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Albert's Farm
(5. Sanitation and Pest Control, continued)	<ul style="list-style-type: none"> • Window is screened. • No food or garbage is kept in building. • All waste is removed from site after slaughter.
6. Response to Food Safety Problems	<ul style="list-style-type: none"> • Complaint log is on file. • Customers are encouraged to provide feedback on product. If any complaints are to be received, customers are offered replacement product or a refund. • For health events related to contaminated meat, the local health unit is contacted. • Records are kept listing customer name and slaughter date. • Each customer is given a receipt, which includes the farm name and slaughter date.

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Albert's Farm
1. Procedure Description	Slaughter ➔ scalding ➔ plucking ➔ washing ➔ chilling ➔ evisceration ➔ organ collection ➔ washing ➔ chilling ➔ draining ➔ bagging ➔ weighing ➔ labeling ➔ chilling ➔ customer pick-up or freezing.
2. Transportation, Receiving and Traceability of Live Animals	<ul style="list-style-type: none"> • All chickens are raised on the farm. • Cages/bins are pressure washed before each use. • Birds are loaded into cages at night. • Birds are handled carefully to avoid any injury or excessive stress. • 5 birds are moved at a time. • 25-30 birds are killed per day. • In the morning, crates are moved to the slaughter site 100 m away.
3. Pre-Slaughter Evaluation	<ul style="list-style-type: none"> • Birds are observed a minimum of twice daily for up to 9 weeks. Flocks are kept small (80 birds) to help detect unfit birds. • Feed is withdrawn 24 hrs before slaughter. Water is supplied. No bedding is provided to avoid eating of bedding. • Any birds showing any signs of disease are culled at any time during the rearing process. Birds are checked for signs, e.g., of emaciation, injuries, droopy wings or neck. • Birds approved for slaughter are alert, active and moving well, eating/drinking, engaging in usual social chicken behaviours, and going outside. Birds that appear unwell are isolated, observed and culled if required. • Pre-slaughter evaluation is the last step of daily observation and culling of unfit birds in a small flock. • For any veterinary questions, contact is made with the local veterinarian.

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Albert's Farm
4. Killing	<ul style="list-style-type: none"> • Birds are placed into killing cones. • Birds are stunned / bled with a special knife. • A maximum of 6 birds are killed at one time to ensure timely processing. • Birds are taken out of cones and suspended with ropes for further bleeding. • Bleeding is done for a minimum of five minutes.
5. Preparation for Evisceration	<ul style="list-style-type: none"> • Birds are submerged in a pre-scalding bin containing water/ basic H solution (20L/20ml) 2 birds at a time. Pre-scalding water is changed after every 10-15 birds as necessary. • A temperature of 60°C (137°F) is maintained at all times. • Scalding time is 30-35 seconds. • Birds are suspended from ropes again for de-feathering. Birds are de-feathered by hand. Pin feathers are removed. • Plucked birds are transferred to a chilling bath bin. • Care is taken to not break the skin. • Birds are moved to a table. • Heads and feet are removed. • Tables are rinsed after this stage. • Heads, feet and feathers are collected in buckets at the side of the working area and later buried. • Oil glands are removed. • Carcasses are rinsed with a hose.

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Albert's Farm
6. Evisceration	<ul style="list-style-type: none"> • The skin at the back of the neck is slit from base to top. • The skin is peeled back, and crop and lungs are loosened. • The bird is turned over. The abdomen is opened with vertical cut from sternum to vent. The knife is angled to prevent puncturing guts. • The vent is held closed by hand. Skin is cut around the vent, with the knife angled to prevent puncturing the gut. • The vent and internal organs are loosened with fingers and pulled out. • Carcasses and tables are rinsed continually. • The liver and gallbladder are removed. • The heart and gizzard are removed. • Gizzards are cleaned. • The hearts, livers, gizzards and necks are harvested in a container. • The kidneys are removed. • A check is done that the lungs are completely removed. Any remainder is removed with water spray.
7. Carcass Trimming	<ul style="list-style-type: none"> • Carcasses with fecal contamination are discarded. • Other contamination (e.g., crop) is rinsed off.
8. Carcass Splitting	N/A
9. Carcass Washing	<ul style="list-style-type: none"> • The bird is washed and hosed repeatedly during evisceration.

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Albert's Farm
10. Chilling	<ul style="list-style-type: none"> • Carcasses are placed in a tub with ice water immediately after evisceration. • Harvested organs are also placed in ice water. • A chill time of over 1 hour is observed. • Ice water is changed after every 10 birds.
11. Identification	<ul style="list-style-type: none"> • Carcasses are weighed and labeled with the farm name, weight, and date.
12. Protection of Meat for Shipping	<ul style="list-style-type: none"> • Carcasses are hung on hooks for draining. • During cold months, carcasses are left on hooks overnight. • Carcasses are completely enclosed in sheets. • During warm months, carcasses are placed in bowls in the fridge overnight. • Carcasses are bagged after 24 hours aging near freezing temperatures. • The temperature is monitored with a thermometer. • Bags are food safe bags. • Carcasses are double bagged. • Carcasses are placed in the freezer.

3.2 Writing Guide to the Food Safety Plan

Delivering safe food to consumers requires attention at every step from farm to plate. In the preceding example, Albert wrote his plan by answering the questions in the next few pages. **Use them to guide planning your slaughter activities.** Things can and do go wrong. It is important to anticipate the need for corrective actions for when things do not go according to plan, and consider circumstances that may require additional or alternative measures.

Whether you are using a computer or a pen to write your plan, use this template to create it. **Be sure to address every element and answer every question to ensure your plan is complete and comprehensive.** The regional health authority will be looking for answers to all the questions in the writing guide, and may ask you to include additional things when they come to your farm to complete your site assessment.

Table 6: Writing Guide to the Food Safety Plan

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD		
Element	Answer These Questions in Your Plan	Expectations
1. Premises	<ol style="list-style-type: none"> Where will each stage of slaughter occur on your site? (Both indoor and outdoor areas, such as your sites for holding pens, kill/bleed, skinning, scalding, etc.) What is the source of your water and how are you getting it to where you are using it? What lighting arrangements will you have? 	<ul style="list-style-type: none"> Sites used during the slaughter process are suitable for preventing contamination of meat; Only potable water is used during slaughter and dressing, and for cleaning work sites; and Good visibility of animal and carcasses.
2. Storage and Distribution of Meat	<ol style="list-style-type: none"> What storage and distribution methods will you use to prevent contamination and spoilage of the carcasses and other edible products (e.g., chicken feet, liver, etc.) Where are you going to cool the meat? How will you maintain ongoing records of sales? 	<ul style="list-style-type: none"> Contamination and spoilage of meat is prevented through adequate storage and distribution; and Meat is traceable from farm to plate.

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Answer These Questions in Your Plan	Expectations
3. Equipment	a. What tools and equipment will you use to receive and slaughter animals and distribute meat? b. What kind of food-contact surfaces will you have? c. How will you maintain each item?	<ul style="list-style-type: none"> • Equipment is maintained to prevent contamination of meat; and • Tools are maintained in a sanitary condition.
4. Personnel	a. Who will be involved in the slaughter processes? b. How will people involved in slaughter be trained? c. What kind of training will be given regarding hygienic handling practices and other measures to minimize food contamination? d. How will you ensure that people with vomiting, nausea, diarrhea, open sores, skin rashes, fever or other health concerns do not participate in slaughter processes? e. What kind of clothing and personal equipment will be used by slaughter personnel?	<ul style="list-style-type: none"> • People involved in slaughter have the knowledge and training to prevent contamination of meat; and • People with health or hygiene issues that may affect meat safety do not participate in slaughter processes.
5. Sanitation and Pest Control	a. When will you sanitize your equipment and clean your premises? b. What sanitation procedures will you use to clean the equipment, tools and premises (including types of solutions, strength and temperature, time and application method)? c. How will you control for pests and how will you record those actions? d. How will you transport, receive, and store chemical products used on slaughter sites, or during the slaughter process (cleaning agents, pesticides, etc.)?	<ul style="list-style-type: none"> • Meat is protected from contamination by pests, chemicals or unsanitary conditions.

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Answer These Questions in Your Plan	Expectations
6. Response to Food Safety Problems	a. How will you respond to complaints? b. Who will be the local health unit contact (name and number) for instructions regarding possible food-borne illness complaints? c. How will you maintain contact information for customers?	<ul style="list-style-type: none"> • Health events related to contaminated meat are minimized; and • Purchasers are informed of any problems with meat that has been identified as the potential cause of health problems.

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Answer these Questions in Your Plan	Expectations
1. Procedure Description	a. How will you create a written plan for the slaughter activities?	<ul style="list-style-type: none"> • All process steps are planned and in keeping with safe and hygienic practice.
2. Transportation, Receiving and Traceability of Live Animals	a. (If applicable) How will you transport, receive and house your animals? b. How will you maintain ongoing records of the age of cattle? c. What records will you use to identify where individual animals have been received from? d. How will you maintain these records?	<ul style="list-style-type: none"> • Animals are transported and received in ways that minimize stress and contamination. • Animals are traceable to their farm of origin.
3. Pre-Slaughter Evaluation	a. How will you decide that an animal is fit for slaughter? b. How will you prepare the animal for slaughter? c. Whom will you contact if you need help with the pre-slaughter assessment (e.g., local or provincial vet)?	<ul style="list-style-type: none"> • Only animals fit for human consumption enter the food chain.
4. Killing	a. What restraint method(s) will you use? b. How will you stun/bleed/kill animals?	<ul style="list-style-type: none"> • Animals are stunned/killed/bled humanely and effectively, minimizing risk of meat contamination.
5. Preparation for Evisceration	a. How will you remove hides, hair, feathers, heads, feet, etc.? b. How will you dispose of inedible material?	<ul style="list-style-type: none"> • Contamination of exposed meat surfaces is prevented. • Inedible material is disposed of in a manner that prevents cross contamination.

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Answer these Questions in Your Plan	Expectations
6. Evisceration	a. What evisceration process will you use? b. What actions will you take if abnormalities are found? c. How will you handle organ meat?	<ul style="list-style-type: none"> • Carcass is eviscerated in such a manner as to prevent contamination of meat. • Diseased meat products are not released for human consumption. • Inedible material is disposed of in a manner that prevents cross contamination.
7. Carcass Trimming	a. What carcass trimming procedures will you use?	<ul style="list-style-type: none"> • Carcasses have no visible contamination.
8. Carcass Splitting (if necessary)	a. (If applicable) How will you split the carcass to prevent spoilage of red meat?	<ul style="list-style-type: none"> • Prevent spoilage by facilitating cooling.
9. Carcass Washing	a. How will you wash the carcass?	<ul style="list-style-type: none"> • Blood and bone dust are removed from the surface of the carcass.
10. Chilling	a. How will you achieve the initial chilling of carcasses to 4°C (40°F) as soon as possible? b. How will you prevent warm carcasses from being chilled with cold carcasses?	<ul style="list-style-type: none"> • Carcasses are adequately chilled to minimize growth of bacteria and prevent spoilage.
11. Identification	a. How will you label the carcass and meat packages?	<ul style="list-style-type: none"> • Carcass and meat are labeled to allow traceability. • Consumers can identify the origin of the meat.
12. Protection of Meat for Shipping	a. How will you bag poultry and rabbits? b. What kind of containers and wrapping material will you use? c. How will you wrap carcass halves or quarters for transport?	<ul style="list-style-type: none"> • Contamination of meat is avoided in transport.

3.3 Food Safety Plan and Site Assessment Form

This **Meat Inspection Regulation Food Safety Plan and Site Assessment Form** is included for your information only. You do not have to complete it. The form will guide the assessment of your food safety plan. It will be used by the environmental health officer (EHO) during your onsite inspection and any audits done subsequently.

Meat Inspection Regulation Food Safety Plan and Site Assessment Form

Producer Name: _____

Species being slaughtered: _____

Stage	EHO	Date
Food Safety Plan – Health Authority Review/Approval		
Onsite Inspection		
Audit		

General Comments:

EHO Name: _____ EHO Signature: _____ Date: _____

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Unsatisfactory		Satisfactory		For Review	Comments
1. Premises						
Site used during the slaughter process is suitable for preventing contamination of meat.	<ul style="list-style-type: none"> • No designated areas. • Dirty area. • Mud. • Area not separated from other animals. • Slaughter done in the presence of other animals that could stray into the site. • Dirt track. • On top of a septic field. Evidence of faecal or mould contamination (e.g., birds/bats in rafters). 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Designated areas (e.g., holding pens, kill/bleed, skinning, scalding, etc.). • Surface clean, flat and dry. • Can be grass. • Dust-free. • No crowding. • Isolated from other animals. • Well drained. • No obvious sources of contamination from the rafters (e.g., birds/ bats). • Facilities available for hand washing. 	<input type="checkbox"/>		
Only potable water is used during slaughter, dressing, and for cleaning work sites.	<ul style="list-style-type: none"> • No running water available. • Using a pail of water. • Test shows bacteriological contamination. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Running water available. • Satisfactory bacteriological test results. 	<input type="checkbox"/>		
Good visibility of animal and carcasses.	<ul style="list-style-type: none"> • Dim, dark conditions. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Daylight outside or well-lit area. 	<input type="checkbox"/>		

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Unsatisfactory		Satisfactory		For Review	Comments
2. Storage and Distribution of Meat						
Contamination and spoilage of meat is prevented through adequate storage and distribution.	<p>Cooler Conditions</p> <ul style="list-style-type: none"> • Crowded and poor air flow. • Cooler surfaces are dirty. • Cooler unable to maintain consistent temperature 4°C (40°F). <p>Non-Cooler Conditions</p> <ul style="list-style-type: none"> • Ambient temperature at time of storage is greater than 4°C. • Meat is stored uncovered and/or unprotected. 	<input type="checkbox"/>	<p>Cooler Conditions</p> <ul style="list-style-type: none"> • Cooler size is sufficient for capacity (e.g., for beef, carcasses not touching and air around them). • Cooler surfaces are clean. • Cooler capacity is appropriate in relation to number of carcasses. • Time/temperature requirements adhered to. *See requirements chart at end of this document. <p>Non-Cooler Conditions</p> <ul style="list-style-type: none"> • Sufficient for maintaining carcasses at less than 4°C. • Time between slaughter and delivery is minimized. • Meat is covered and protected. 	<input type="checkbox"/>		

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Unsatisfactory		Satisfactory		For Review	Comments
3. Equipment						
Equipment is maintained to prevent contamination of meat.	<ul style="list-style-type: none"> • Rusty. • Cracked. • Broken. • Greasy. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • In good repair. • Maintained according to manufacturer's recommendations. • Rust-free. 	<input type="checkbox"/>		
4. Personnel						
People involved in slaughter have the knowledge and training to prevent contamination of meat.	<ul style="list-style-type: none"> • Untrained. • Minimal knowledge or skills apparent. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • SlaughterSafe certified or supervised by a SlaughterSafe-trained person. 	<input type="checkbox"/>		
People with health or hygiene issues that may affect meat safety do not participate in slaughter processes.	<ul style="list-style-type: none"> • Smoking. • Loose hair. • Open infections. • Eating. • Alcohol or drugs. • Acute illness, including diarrhoea, fever or rash. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Wounds are satisfactorily covered. • People are healthy. • People are alert. 	<input type="checkbox"/>		

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Unsatisfactory		Satisfactory		For Review	Comments
5. Sanitation and Pest Control						
Meat is protected from contamination by pests, chemicals or unsanitary conditions.	<ul style="list-style-type: none"> • No plans for pest control or sanitation. • Unclean surroundings (e.g., dirt, dust, cobwebs, clutter, manure, etc.). • Chemicals are inadequately stored. • Cleaning agents not properly used. • Cleaning not scheduled appropriately. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Written cleaning and pest control plan. • Use of bleach or other adequate sanitizers for equipment. • Area is clean, uncluttered. • Chemicals stored appropriately. • Cleaning scheduled for before and after slaughter. 	<input type="checkbox"/>		
6. Response to Food Safety Problems						
Health events related to contaminated meat are minimized.	<ul style="list-style-type: none"> • No way for people to make complaints. • No record or plan for response to complaints. • Planned follow up unclear – including failure to notify public health. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Contact information for customers clearly communicated (e.g., labels, signs, sales records). • Up-to-date information on public health contacts for notification of complaints of illness. 	<input type="checkbox"/>		

PART A: FACILITIES, CONDITIONS AND PROCEDURES THAT PROVIDE OPERATIONAL CONDITIONS FAVOURABLE TO THE PRODUCTION OF SAFE FOOD

Element	Unsatisfactory		Satisfactory		For Review	Comments
(6. Response to Food Safety Problems, continued)						
Purchasers are informed of any problems with meat that has been identified as the potential cause of health problems.	<ul style="list-style-type: none"> • No record of purchasers. • No way of linking meat to source. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Sales records include customer contact information. • Clear understanding of the responsibility of the producer to follow public health directions in the event of potential health concern. 	<input type="checkbox"/>		

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Unsatisfactory		Satisfactory		For Review	Comments
1. Procedure Description						
All process steps are planned and in keeping with safe and hygienic practice.	<ul style="list-style-type: none"> • No written plan. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • A clear concise plan that demonstrates a food safety perspective. 	<input type="checkbox"/>		
2. Transportation, Receiving and Traceability of Live Animals						
Animals are transported and received in ways that minimize stress and contamination.	<ul style="list-style-type: none"> • Animals are exposed to unnecessary stress or suffering. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Food, water, shelter and handling procedures cause minimal stress or suffering. 	<input type="checkbox"/>		
Animals are traceable to their farm of origin.	<ul style="list-style-type: none"> • No records of source of animals. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Records of source of animals. 	<input type="checkbox"/>		
3. Pre-slaughter Evaluation						
Only animals fit for human consumption enter food chain.	<ul style="list-style-type: none"> • No process to assess animal health prior to slaughter. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Defined process for pre-slaughter evaluation including criteria for removing from food chain, back up consultation information written and updated; and • Animal health is well managed (e.g., veterinary involvement is evident). 	<input type="checkbox"/>		

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Unsatisfactory		Satisfactory		For Review	Comments
4. Killing						
Animals are stunned/killed/bled humanely and effectively, minimizing risk of meat contamination.	<ul style="list-style-type: none"> • Inadequate restraint. • Animal not sufficiently separated from other animals. • Unsafe or inappropriate equipment. • Inexperienced operator. • Ineffective or failure-prone methods of stunning. • Animal regains consciousness once stunned. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Restraint/containment appropriate to stun/kill methods. • Animals are appropriately bled immediately after stunning. 	<input type="checkbox"/>		
5. Preparation for Evisceration						
Contamination of exposed meat surfaces is prevented.	<ul style="list-style-type: none"> • Skinning method brings meat into contact with the ground or other unhygienic surfaces. • No hand-washing provisions. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Species specific skinning/scalding/plucking methods that protect meat from contamination. • Hand-washing available (e.g., bucket of bleached water). 	<input type="checkbox"/>		
Inedible material is disposed of in a way that prevents cross-contamination.	<ul style="list-style-type: none"> • Leaving hides out in the open. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Clear process to separate waste through the slaughter process. 	<input type="checkbox"/>		

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Unsatisfactory		Satisfactory		For Review	Comments
6. Evisceration						
Carcass is eviscerated in such a manner as to prevent contamination of meat.	<ul style="list-style-type: none"> High potential for guts to be opened in process – unskilled operator, inadequate or poorly maintained equipment. 	<input type="checkbox"/>	<ul style="list-style-type: none"> Viscera are removed appropriately (** species specific). Organ meats are separated and chilled as soon as possible. 	<input type="checkbox"/>		
Diseased meat products are not released for human consumption.	<ul style="list-style-type: none"> No process identified for checking out concerns about abnormalities. 	<input type="checkbox"/>	<ul style="list-style-type: none"> Checklist exists for abnormalities of concern. Contact person identified for checking up on uncertain situations. 	<input type="checkbox"/>		
Inedible material is disposed of in a manner to prevent cross contamination.	<ul style="list-style-type: none"> Guts left near ongoing food handling or available for consumption by other animals. 	<input type="checkbox"/>	<ul style="list-style-type: none"> Guts removed from area. 	<input type="checkbox"/>		
7. Carcass Trimming						
Carcasses have no visible contamination.	<ul style="list-style-type: none"> No plan for trimming. 	<input type="checkbox"/>	<ul style="list-style-type: none"> Clear procedure planned for removal of visible contamination. 	<input type="checkbox"/>		

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Unsatisfactory		Satisfactory		For Review	Comments
8. Carcass Spitting (if necessary)						
Prevent spoilage by facilitating chilling.	<ul style="list-style-type: none"> • Dirty equipment. • No, or limited, knowledge or consideration of SRM. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Equipment is clean and sanitization procedure is evident. • SRM considerations are met. 	<input type="checkbox"/>		
9. Carcass Washing						
Blood and bone dust are removed from the surface of the carcass.	<ul style="list-style-type: none"> • Wiping with a towel. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Hosing to remove blood and bone dust. 	<input type="checkbox"/>		
10. Chilling						
Carcasses are adequately chilled to minimize growth of bacteria and prevent spoilage.	<ul style="list-style-type: none"> • No cooling and ambient temperature too high. • No weather thermometer. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Cooler adequate for planned capacity. • Ice available for small carcasses. • Ambient conditions suitable (temperature measured and recorded). 	<input type="checkbox"/>		
11. Identification						
Carcass and meat are labeled to allow traceability and allow consumers to identify origin of meat.	<ul style="list-style-type: none"> • Not labeled as per regulations. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Labeled as per regulations. See <i>Section 2.6 – Keeping Track</i>. 	<input type="checkbox"/>		

PART B: PROCEDURES USED IN THE HANDLING OF ANIMALS AND CARCASSES THAT PROVIDE FOR THE PRODUCTION OF SAFE MEAT

Element	Unsatisfactory		Satisfactory		For Review	Comments
12. Protection of Meat for Shipping						
Contamination of meat is avoided in transport.	<ul style="list-style-type: none"> • No coverage. • Open, potentially dirty surfaces. 	<input type="checkbox"/>	<ul style="list-style-type: none"> • Covered to prevent dust or other contamination. • Transported on a cleanable surface (e.g., plastic truck-bed liner). 	<input type="checkbox"/>		

4 Appendices

APPENDIX A: IMPORTANT CONTACTS

A.1 Regional Health Authorities

For inquiries about SlaughterSafe training, booking a site assessment, or general inquiries about Class D or E licensing, please contact your regional health authority.

Regional Health Authorities	
Fraser Health Authority <i>Arnold Fok</i> Environmental Health Officer Suite 100 Central City Tower 13450 – 102nd Avenue Surrey BC V3T 5X3 Arnold.fok@fraserhealth.ca (604) 930-5405	Interior Health Authority <i>Meat Inspection Team</i> Interior Health Authority 519 Columbia Street Kamloops BC V2C 2T8 meatinspection@interiorhealth.ca 1-855-744-MEAT (6328)
Northern Health Authority <i>Lynnette Winsor</i> Environmental Health Officer Quesnel Health Unit 523 Front Street Quesnel BC V2J 2K7 Lynnette.winsor@northernhealth.ca (250) 983-6810	Vancouver Coastal Health Authority <i>Jasmina Egeler</i> Regional Food Safety Coordinator 12th Floor, 601 West Broadway Vancouver BC V5Z 4C2 Jasmina.egeler@vch.ca (604) 675-3810
Vancouver Island Health Authority <i>Cole Diplock</i> Regional Environmental Health Consultant 4th Floor – 238 Government St. Duncan BC V9L 1A5 Cole.Diplock@viha.ca (250) 737-2011	

A.2 Regional Districts

To find out if there are any zoning and/or bylaw restrictions on small-scale slaughter activities on your farm or slaughter site, please contact your regional district.

Regional Districts	
Alberni-Clayoquot <i>Mike Irg</i> Manager, Planning and Development mirg@acrd.bc.ca (250) 720-2710	Bulkley-Nechako <i>Jason Llewellyn</i> Director, Planning Jason.Llewellyn@rebn.bc.ca Maria Sandberg ; Planner maria.sandberg@rdbn.bc.ca
Capital <i>Robert Lapham</i> General Manager, Planning and Protective Services rلapham@crd.bc.ca	Cariboo <i>Francesca Sanna</i> Planning Officer fsanna@cariboord.bc.ca (250) 392-3351
Central Kootenay <i>Meeri Durand</i> Planner mdurand@rdck.bc.ca (250) 352-8162	Central Coast info@ccrd-bc.ca
Central Okanagan <i>Ray Paterson</i> Chief Building Inspector Ray.Paterson@cord.bc.ca (250) 469-6215	Columbia-Shuswap <i>Gerald Christie</i> Development Services gchristie@csrd.bc.ca <i>Dan Passmore</i> Development Services dpassmore@csrd.bc.ca (250) 833-5915
Comox Valley <i>Geoff Garbutt</i> Executive Manager, Strategic and Long Range Planning ggarbutt@comoxvalleyrd.ca (250) 334-6077 <i>Derald Lewis</i> Manager, Bylaw Compliance and Special Investigations dlewis@comoxvalleyrd.ca (250) 334-607 <i>Ralda Leroux</i> Policy Analyst, Strategic and Long Range Planning	Cowichan Valley <i>Rachelle Moreau</i> ; Planner rmoreau@crvrd.bc.ca (250) 746-2620

Regional Districts	
(Comox Valley, continued) rleroux@comoxvalleyrd.ca (250) 334-6076	
East Kootenay Andrew McLeod Manager, Planning and Development Services amcleod@rdek.bc.ca (250) 489-2791 / toll free 1-888-478-7335 Anita Charest Development Clerk acharest@rdek.bc.ca 250-489-2791 / toll free 1-888-478-7335	Fraser Valley Graham Daneluz Manager, Planning gdaneluz@fvrd.bc.ca Rick McDermid Manager, Planning rmcdermid@fvrd.bc.ca
Fraser -Fort George Terry McEachen General Manager, Community and Development Services tmceachen@rdfgg.bc.ca Heather Meier ; Planner II hmeier@rdfgg.bc.ca	Haida Gwaii Helen Koning Interim Administrator hkoning@sqrdrd.bc.ca (250) 624-2002 Ext 23
Kitimat-Stikine Ted Pellegrino Planner tpellegrino@rdks.bc.ca (250) 615-6100	Kootenay Boundary Mark Andison Director, Planning and Development mandison@rdkb.com
Metro Vancouver Tolvo Allas Policy and Planning Tolvo.Allas@metrovancouver.org	Nanaimo Kristy Marks Planner kmarks@rdn.bc.ca (250) 390-6510
North Okanagan Rob Smailes General Manager, Building and Planning Rob.Smailes@rdno.ca (250) 550-3736	Northern Rockies Jack Stevenson Director, Community Development and Planning jstevenson@northernrockies.ca

Regional Districts	
Okanagan-Similkameen Donna Butler Manager, Development Services dbutler@rdos.bc.ca	Peace River Bruce Simard General Manager, Development Services Bruce.Simard@prrd.bc.ca
Powell River Don Turner Planner planning@powellriverrd.bc.ca	Squamish-Lillooet Steven Olmstead Director, Planning and Development solmstead@slrd.bc.ca
Strathcona Beth Rees Manager, Parks and Planning brees@strathconard.ca (250) 830-6711	Sunshine Coast Lesley-Ann Staats Planning Technician Lesleyann.staats@scrd.ca (604) 885-6804 Ext 6
Thompson-Nicola Bob Finley Manager of Planning Services bfinley@tnrd.bc.ca (250) 377-7062	

A.3 Animal Health Centre

For inquiries about abnormal conditions in animals, or abnormalities encountered during slaughter, please contact the Animal Health Centre veterinary line.

Animal Health Centre	
Veterinary Help Line 1767 Angus Campbell Road Abbotsford BC V3G 2M3	regular phone: (604) 556-3003 toll free (BC only): 1-800-661-9903 fax: (604) 556-3010

A.4 Canadian Food Inspection Agency (CIFA)

For specific questions about obtaining an SRM permit, please contact your local CFIA office.

Canadian Food Inspection Agency (CIFA)	
BC Coastal 4321 Still Creek Dr., Suite 400 Burnaby, British Columbia V5C 6S7 phone: (604) 666-6513 fax: (604) 666-1261	BC Mainland / Interior (Includes Yukon) 4321 Still Creek Dr., Suite 400 Burnaby, British Columbia V5C 6S7 phone: (604) 666-6513 fax: (604) 666-1261

A.5 Ministry of Environment (MOE)

For specific questions about animal waste management, contact your local MOE office.

Ministry of Environment (MOE)	
Northern Region Omenica: main switchboard: (250) 565-6135 Peace: main switchboard: (250) 787-3411 Skeena: Jeanien Carmody-Fallows: (250) 847-7273	Southern Interior Region Cariboo: main switchboard: (250) 398-4530 Okanagan: main switchboard: (250) 490-8200 Thompson: main switchboard 250) 371-6299 Kootenay / Boundary: Tamara Mickel: (250) 354-6162 East Kootenay : Wendy Murdoch: (250) 489-8536
Lower Mainland David O'Malley: (604) 582-5307	Vancouver Island main switchboard: (250) 751-3100

APPENDIX B: RECORD-KEEPING TEMPLATES

There are several samples presented in the next pages. You can use these, but if you already have a system you are happy with, you are under no obligation to use the forms presented here.

B.1 Record-Keeping Requirements for Class D and E Licence Holders

B.1.2 Sales Record

You can use this record to trace back in the event of health concerns or issues.

Table 7: Sample Sales Record

Product	Date of Sale	Quantity (weight)	Name and Phone

B.1.3 Complaint Log

This log is to be used to record customer complaints along with responses. Retain for use and include a copy with renewal applications if you have a customer complaint to report.

Table 8: Sample Complaint Log

Date	Customer	Details of Complaint	Action	Date Completed

B.1.4 SRM Permit and Records

Whenever SRM material is transported, including carcasses from which SRM has not been removed, (e.g., a carcass from an animal greater than 30 months of age with the spinal cord intact), records must be kept that include the following information:

- The date of SRM removal and staining.
- The name and address of the person who transferred the SRM or the carcasses to another location, the transfer date, and a description of how the material/carcasses were transferred.
- The name and address of the person(s) who transport and receive the SRM or carcasses (e.g., the operator of the butcher shop that receives the SRM).
- The name of the dye used to identify the SRM or the carcasses.
- The numbers of the approved identification tags on the carcasses.

If you choose to permanently dispose of SRM or carcasses containing SRM on your farm/property, you must keep **all records for 10 years** that include:

- The combined weight of SRM removed from the carcass.
- The date and method of SRM destruction or disposal.

B.2 Record-Keeping Requirements: Class D Licence Holders Only

B.2.1 Receiving Record / Animal Health Assessment

As a part of the pre-slaughter assessment and to ensure animals are traceable to their farm of origin, Class D licence holders must keep a record of all incoming animals. You can use this receiving record/animal health checklist to capture the animal's source, date, description and medical history.

Table 9: Sample Receiving Record / Animal Health Checklist

Identifying Information	
Operating date:	
Name of operator (licence holder):	
Licence class:	
Owner of the animals to be slaughtered:	
Species of animal to be slaughtered:	
Treatments/antibiotics/vaccinations used on animal:	
Owner of the animals to be slaughtered:	
Date of receipt (animals from another farm):	
Species of animal to be slaughtered:	
Number of animals to be slaughtered:	
Time of pre-slaughter assessment:	
Identification (ear tags for cattle and sheep):	
Pre-Slaughter Assessment	Observation
Breathing:	
Behaviour:	
Gait:	
Posture:	
Discharges:	
Colour:	
Appearance:	
Odour:	
Actions:	
Final Decision:	
Assessor's Signature:	

B.2.2 Temperature Control Log

Carcasses need to be adequately chilled to minimize growth of bacteria and prevent spoilage. You need to achieve the initial chilling of carcasses to 4°C (40°F) as soon as possible. Monitor the cooler/tote temperatures continuously with a recording chart such as this temperature control log.

Table 10: Sample Temperature Control Log

Week of:			
Date	Time	Thermometer Reading	Initials

APPENDIX C: FREQUENTLY ASKED QUESTIONS (FAQS)

1. How many animals is 1 animal unit?

One animal unit is roughly equivalent to:

- 1 steer
- 4.5 hogs
- 8 sheep
- 180 broiler chickens

2. How were the animal unit volume limits for D and E licences decided?

Animal unit volume limits were decided based on a combination of input from small farmers in three consultation areas – Powell River, Haida Gwaii, and Bella Coola – and a quantitative food safety risk-assessment completed by the Ministry of Health.

3. If I slaughter other people's animals under my D licence, does this count towards my volume totals?

Yes. You can slaughter a maximum of 25 animal units with a D licence. Your total allowable slaughter volume includes your own animals, and any animals that you slaughter for other people. Class E licence holders cannot slaughter other people's animals.

4. Can I slaughter multiple species under my D or E licence?

Yes. However, because slaughter procedures and equipment vary among species, you must have a separate food safety plan for each species that you slaughter.

Your **core food safety plan** has to address all the required food safety elements in detail. For each additional species, you must develop a **secondary food safety plan**. Your secondary plan(s) can reference your core plan where the equipment or procedures are the same between species. Where there are differences, you must provide the appropriate information.

5. Can I sell my meat at a farmer's market?

Raw meat/carcasses originating from a Class D and E establishment, or meat products processed at a licensed processing facility but originating from the Class D or E establishment, may be sold at a temporary food market.¹

All sales of meat or meat products originating from a Class E meat plant should be completed by the licence holder (licensee) or his/ her immediate family. However, sales by other individuals on behalf of the E licence holder are permitted provided the following requirements are met:

- The individual must be able to clearly demonstrate their relationship to the E establishment or licence holder (e.g., employee, family member, etc.).
 - The individual must ensure all required sales records are being kept, including documentation of accurate customer contact information for traceability purposes.
- Note:** this is required for all E sales regardless of where they occur.
- The individual must ensure a copy of the E establishment's food safety plan and licence is readily available to customers at the temporary food market

All requirements in the *Guideline for the Sale of Foods at Temporary Food Markets*² apply to all Class D or E meat or meat products sold at temporary food markets. **Note:** all meat or meat products must be frozen and kept frozen from the point of packaging through to the point of sale at a temporary food market.

All product labeling requirements outlined above in *Section 2.6.1 – Labeling* apply.

6. If I have a Class D or E licence, can I slaughter animals for other people?

Class D license holders can slaughter other people's animals under their licence if the animals are brought to their rural slaughter establishment, but Class E licence holders cannot. If the rural slaughter establishment is located in the Agricultural Land Reserve, more than half of the animals slaughtered at that establishment **must belong to the licence holder**. A Class D licence holder cannot slaughter on someone else's farm for them unless that person also holds a D or E licence.

7. Can more than one person hold the same D or E licence?

Licences will be issued only to one individual property owner/operator, or spouses, and are not transferable to another individual or property.

8. If I move, can I take my licence with me?

No. A Class D or E licence is issued to an owner/operator, and to particular farm or slaughter site. Licences are not transferable to another individual or property. If you move, you must develop a new food safety plan, and re-apply for a new licence for the property to which you are moving.

¹ A **temporary food market** means, for the purposes of provincial guidelines, a food establishment operated in a fixed location on a temporary basis in connection with a charitable or public event, farmers' market, or other event of like nature.

² *Guideline for the Sale of Foods at Temporary Food Markets* is available at:
<http://www.bccdc.ca/foodhealth/foodguidelines/default.htm>

9. I want to raise my own livestock and get a D or E licence, but I don't want to slaughter my own animals. What are my options?

You can either apply for a D or E licence with the intention of slaughtering your own animals or you can hire a competent slaughterperson to slaughter for you. Anyone slaughtering under a D or E licence must complete SlaughterSafe training, and must be named in the food safety plan for each facility they are slaughtering for.

10. I am competent in slaughter, and I want to slaughter for D and E licence holders. What do I have to do?

If you want to slaughter for D or E licence holders, you have to complete SlaughterSafe training, and you must be named in the food safety plan for each facility you are slaughtering for.

11. If I have a Class D or E licence, can I cut and wrap my own meat?

No. Class D and E licences permit only the slaughter of livestock. Processing is limited to halving or quartering of red meat (beef and other), and removal of head, wings and legs from poultry. There are no provisions to include cut and wrap, or any further meat processing with a Class D or E licence.

12. For how long will licences be issued?

Class D and E licences will be issued for five years or less. In designated areas, licences will be issued for five years. In nondesignated areas, licences may be issued for less than five years in some circumstances. For example, if a new Class A or B facility is about to start up in your area, you may be issued a licence that is only for one year. After a year, if the new A or B facility is operational, your licence will not be renewed.

13. What do I do if I want to make changes to my food safety plan?

You must notify your regional health authority of any changes to your food safety plan.

APPENDIX D: PRE-MORTEM ANIMAL HEALTH INSPECTION GUIDELINES

D.1 Pre-Mortem Assessment

In slaughter facilities that have meat inspection and are licensed under the federal or provincial inspection system, assessment of live animals before slaughter is called “ante-mortem inspection.” With the Class D and E licensed operations, this is the responsibility of the owner/operator licence holder. The assessment results should be recorded as part of the record-keeping in the food safety plan and the information used when observing the internal organs of the animals at dressing.

Reasons for slaughter (animals have different levels of risk for health problems):

- **Purpose-raised and ready for market:** These animals will usually be young and in good to very good body condition. There will be fewer cases where abnormalities are found.
- **Dual-purpose animals that are finished for other purposes:** This would include breeding animals that have finished their breeding cycle and are now being used for meat production – usually older animals. They may have conditions that make them subject to more abnormalities than the younger market animals.
- **Cull animals:** These are animals that, although they could be young, may be unfit for their primary function. An example is a first calf heifer that is having difficulty breeding back.
- **Salvage of sick or injured animals:** This would include animals with traumatic injuries and/or conditions that do not have a direct impact on the safety of the resulting food products. They may also be in a class referred to as “emergency slaughter,” where delaying slaughter would be inhumane or render the meat unfit for consumption.

D.2 Purpose of Pre-Mortem Assessment

Pre-slaughter assessment is to be performed on all animals within 24 hours of slaughter. There are some very important reasons for performing pre-mortem assessment on animals and you should keep them in mind when performing your examination. These reasons are to:

- Identify animals showing clear evidence of being affected with a disease or condition that could render the carcass unfit for human consumption. This also allows you to identify animals affected with disease showing no evidence of abnormalities after death (e.g., a rabid animal would have characteristic signs on pre-slaughter assessment but no abnormalities at time of dressing or processing).
- Identify animals that could pose a threat to the health of personnel handling the carcass (e.g., ringworm).
- Identify animals that are suspected of being affected with a disease or condition that might render the carcass unfit for human consumption.
- Identify animals that are suspected of having been treated with antibiotics or other chemicals.

- Alert the slaughter staff when diseased animals are found in a herd, as the rest of the herd could be affected by the same disease (e.g., respiratory disease in swine).
- Identify animals heavily contaminated with manure that could lead to contamination problems during the dressing procedures.
- Identify animals that are suspected of having a reportable or exotic disease (e.g., tuberculosis is a reportable disease, and foot-and-mouth disease is an exotic disease as it does not exist in Canada).
- Make a decision regarding the suitability of animals for slaughter so that dead or dying animals do not enter the slaughter floor.
- Identify animals requiring special handling for humane reasons (e.g., animals with fractures).

D.3 Examination of the Animals

Your initial examination is the process of observation and detection of animals with noticeable abnormalities, so you must first learn to recognize normal animals. The following section will tell you how to identify animals that must be segregated from others.

D.4 How to Conduct Your Examination

The animals should be observed at rest and in motion. Both sides and rear of the animal, along with the head, should be examined. It is of the utmost importance that you develop a standardized approach for your examination so all animals are observed completely and consistently.

In-pen screening should take into account the requirements for observation while maintaining safety considerations. An alternative to examining animals on arrival is to observe the animals in motion as they leave the holding pens.

In the case of poultry, the general health of the flock and any individuals that stand out as different should be noted. Each bird is handled at stunning so abnormalities can be noted at that time.

D.5 Signs You Should Look For

In general, anything that is not normal should be noted during initial pre-slaughter assessment. There are some exceptions of minor significance, such as cows with one horn or an extra teat, minor cuts, etc.

Your job is to recognize abnormalities. It is therefore extremely important to recognize what is normal when examining an animal. This takes some time and with experience you will be able to judge which conditions require further investigation.

Do not hesitate to ask for assistance if you have any concerns. There are veterinarians who provide telephone advice at the Animal Health Centre in Abbotsford, at 1-800-661-9903 between 08:00 a.m. and 4:00 p.m., Monday to Friday. You can also contact your local veterinarian. This will help you develop proper judgment and recognize abnormal conditions. The Animal Health Centre is also available for advice on abnormalities encountered during slaughter.

Generally abnormalities that require further action at the time of initial pre-slaughter assessment fall into the following categories:

1. Abnormal breathing
2. Abnormal behaviour
3. Abnormal gait
4. Abnormal posture.
5. Abnormal discharges or extrusions from body openings
6. Abnormal colour
7. Abnormal appearance
8. Abnormal odour

See below for details on these types of abnormalities.

1. Abnormal Breathing

Usually this refers to frequency of breathing, but there are other abnormalities such as frequent coughing, difficulty in breathing, or shallow and painful breathing. The main point for you to remember is that if the breathing pattern differs from normal, the animal should be screened out.

2. Abnormal Behaviour

Abnormal behaviour can be significant in some very serious diseases such as rabies and lead poisoning. Examples of abnormal behaviour are:

- Animal pushing its head against the wall.
- Animal walking in circles.
- Animal charging at various objects.
- Animal with an anxious expression in its eyes.
- Animal with a dull expression in its eyes.
- Animal acting very aggressively.

Animals that behave abnormally should be separated at the time of pre-slaughter assessment.

Special attention should be taken so the animal will not be a danger to other animals or to humans.

3. Abnormal Gait

When an animal staggers, limps or is reluctant to move, it usually indicates there is pain somewhere. The animal may be suffering from abnormalities anywhere in its legs or may have pain in the chest or abdomen. It may also have a nervous disorder.

4. Abnormal Posture

An animal with abnormal posture may:

- Stand with its abdomen tucked in.
- Lie with its head turned and along its side.
- Stand with its feet stretched out in front.
- Stand with its head and neck extended.
- Be unable to rise.

Sometimes normal animals may temporarily assume a posture that may be mistaken for abnormal postures. For example, a cow that has rested a long time may stretch and stand with its legs out

front as in some disease conditions. Also, resting cattle sometimes have their head turned along their side. In normal animals, this posture disappears when the animal is stimulated.

The most frequently observed abnormal posture is the “downer.” Downers are animals that cannot stand or can stand only for short periods. Such animals must be handled without causing undue suffering and are usually separated.

5. Abnormal Discharges or Protrusions from Body Openings

The normal animal has no discharges or protrusions from its body openings. Examples of abnormal discharges or protrusions from the body are:

- Discharge from the nose.
- Bloody diarrhea.
- Excessive saliva coming out of the mouth.
- Afterbirth hanging out of the vulva.
- Calf leg protruding from vulva.
- Intestine protruding from rectum.
- Uterus protruding from vulva.
- Growth protruding from eye.

6. Abnormal Colour

Abnormal colour is generally not as important as the other abnormalities; however, you should look out for this. Examples are:

- Black areas on the skin (of swine).
- Red areas in light-coloured skin (inflammation).
- Dark-blue areas (e.g., gangrenous udder).
- Yellow colouration of the white part of the eye or skin (jaundice).

7. Abnormal Appearance (Conformation)

Whenever there is a change in the normal conformation of an animal, a disease process should be suspected. Examples are:

- Swelling of the skin (abscesses).
- Enlarged joints.
- Swelling of the umbilicus.
- Udder greatly enlarged.
- Abdomen bloated.
- Swollen legs.
- Enlarged jaws (“lumpy jaw”).
- Hanging-down (pendulous) lower abdomen
- Swelling of subcutaneous lymph nodes.

In some instances it is helpful to compare both sides of the animal to find discrepancies.

8. Abnormal Odour

This is often difficult to detect on pre-slaughter assessment. Examples of odours found at pre-slaughter assessment are stinkweed, medicinal or punctured abscess odours. Your duty will be to hold the animals for appropriate treatment before slaughter whenever you suspect an animal has an abnormal odour.

D.6 What You Should Do When You See an Abnormality

If you are confronted with an animal showing one or more of these abnormalities you should:

- Phone the Animal Health Centre for advice from the veterinary staff or contact your local veterinarian to determine the significance of your findings and recommendations about slaughter. For phone numbers of the Animal Health Centre, see *Appendix A: Important Contacts*, above.
- If the condition seems serious to you, do not slaughter the animal for human consumption: have the animal treated for the condition you have found.

APPENDIX E: GUIDE TO HAND WASHING

Washing your hands is the most important thing you can do to prevent the spread of disease.

1. Remove any hand or arm jewellery you may be wearing.
2. Wet your hands with warm, running water.
3. Apply soap and rub your hands together, away from the running water for 20 seconds (try humming the “Happy Birthday” song twice.)
4. Wash the front and back of your hands, between your fingers and under your nails.
5. Rinse your hands well for 15 seconds under warm running water, using a rubbing motion.
6. Dry your hands thoroughly with a paper towel.
7. Note: Turn off the tap and open the door using the paper towel so that you do not re-contaminate your hands.

APPENDIX F: HOW TO MAKE A BLEACH SANITIZING SOLUTION

F.1 Cleaning and Disinfecting Non-Food Contact Surfaces with a Bleach Sanitizing Solution

1. Wash non-food contact surfaces with warm water and soap, using a cloth or scrub brush.
2. Rinse well with clean, warm water.
3. Use a bleach solution with 100 ppm chlorine – 30 ml (2 tbsp) of fresh bleach in a 4-litre (1 gallon) pail of water. (The pail could be an ice cream bucket.) Or use quaternary ammonium solution with a strength of 200 ppm. (Follow label.)
NOTE: Never mix bleach and ammonia, which will cause deadly fumes.
4. Wet the surface down with the solution and let it sit for two minutes.
5. Let air dry – do not rinse or wipe.

F.2 Cleaning and Sanitizing Food Contact Surfaces with a Bleach Sanitizing Solution

Use these steps to clean and sanitize implements, counters, cutting boards and tables.

1. Wash in clean hot water containing an approved dish detergent.
2. Rinse in clean hot water to remove detergent and maintain strength of sanitizing solution.
3. Sanitize by submerging items for two minutes in clean warm water with:
 - Bleach solution with 100 ppm chlorine – 30 ml (2 tbsp) of fresh bleach in a 4-litre (1 gallon) pail of water.
 - Quaternary ammonium solution with a strength of 200 ppm. (Follow label.)
 - Iodine (12.5-25 ppm).
4. Air dry on a clean, nonabsorbent surface. Do not wipe.
5. Wipe down counters and tables with the sanitizer solution. Air dry.

F.3 Alternatives to Bleach as a Disinfectant

A variety of commercial chemical formulations are available as alternatives to bleach for use as disinfectant. **NOTE: only chlorine, quaternary ammonium or iodine are approved for use with food contact surfaces.**

For a disinfectant to be approved for use in Canada it must have a Drug Identification Number (DIN). Products without a DIN have not been tested for their ability to kill germs. To be considered an acceptable alternative to bleach as a disinfectant, the product must meet this requirement.

Whichever product is chosen, all approved disinfectants **must be used in strict accordance** with the manufacturer's instructions on the label. In addition to the name of the product, manufacturer and active ingredient, the label must clearly state the intended use of the product. Directions for use must provide instruction on:

- Precautionary information on safe handling procedures.
- Appropriate dilutions and application procedures.
- Contact time (how long to leave the disinfectant on the surface).
- Requirements for cleaning surfaces prior to disinfection.
- Requirements for rinsing.
- Stability of product (e.g., daily mixing).
- Disposal of waste materials.

Also, look for first aid instructions on the label and always ensure safe storage of any cleaning product.

APPENDIX G: CLASS E LICENCE CONDITIONS

Class E licences will be issued in nondesignated areas only when existing facilities cannot provide the services required by a Class E applicant, or exceptional circumstances apply. **If a licence is issued within a two-hour travel time of an existing facility, one or more licence conditions will apply.** Unconditional licences can be issued outside the two-hour service area of existing facilities.

The licence conditions that may apply are:

Species-specific Slaughter

This limits the species that can be slaughtered under the licence. For example, a licence for beef slaughter could be issued within two hours of a facility that slaughters only poultry.

Specialty Slaughter

This limits the allowable slaughter activities to the type of specialty (custom) slaughter required by a Class E licence holder. Documentation must be submitted with the application to support the need for a specialty slaughter licence within a two-hour travel time (i.e., service area) of existing facilities.

Time-limited Slaughter

Class E licences may be issued for less than five years if there is a reasonable expectation that the necessary slaughter services will be available in the near future. For example, a Class E licence might be issued only for one year if an operator in the area is working towards full Class A or B licensing and has plans submitted and approved by the BC Centre for Disease Control (BCCDC).

Seasonal Slaughter

A one-year seasonal licence may be issued if all Class A/ B facilities within a two-hour travel distance are at full capacity for an extended period of time (e.g., during peak slaughter season, typically Sept.-Jan.). The E licence holder will be permitted to slaughter only when the Class A or B facility is full. Verbal or written confirmation from the A or B operator that services are unavailable is required.

APPENDIX H: ANIMAL WELFARE

H.1 Slaughter

H.1.1 Pre-Slaughter Handling

Class D and E licence holders are responsible for humane pre-slaughter handling and stunning of animals.

- The pre-slaughter environment should be one that is quiet and calm.
- Animals should be handled quietly and with care to avoid unnecessary stress, pain or injury.
- The stunning area should be a safe environment for effective stunning. Familiarizing animals with the stunning area before slaughter may make handling easier at time of slaughter.
- Low-stress handling techniques must be implemented during the slaughter process. For example, poultry are best caught under low lighting or blue lighting.

H.1.2 Restraint

If restraint is required during the stunning process, it must be appropriate for the species.

H.1.3 Methods of Stunning

To ensure a humane death for an animal at slaughter, two things must happen:

1. A person competent in slaughter must stun the animal using an approved, humane method. Correct stunning causes the animal to become immediately insensible.
2. Stunning must be rapidly followed by bleeding, to ensure death **before the animal regains sensibility**. No animals, other than poultry or rabbits, shall be partially or wholly hoisted or suspended prior to being rendered insensible.

Methods of Stunning (This is a copy of Table 4.)

Acceptable Methods	Suitable for	Maximum Stun-to-Stick Interval
Correctly placed head shot with firearm of appropriate calibre and appropriate ammunition.	Cattle, bison, sheep, goats, pigs, and other small ruminants. See below for appropriate selection and use.	60 seconds
Penetrating or nonpenetrating captive bolt stunner.	Appropriate models exist for all livestock and poultry. See below for further information	60 seconds
Electrical stunning.	Possible for all livestock and poultry. See below for further information.	60 seconds
Rapid decapitation with appropriate restraint (killing cone).	Poultry and rabbits only.	Exempt from a two step stun/kill process.
Manual blunt force trauma for small animals only.	Poultry and rabbits.	60 seconds
Ritual slaughter under Islamic or Jewish law.	See "Ritual Slaughter," below for appropriate methods.	
Other Methods		
If the slaughter method you want to use is not listed in the green section above, it may not be humane or legal. You must consult with the Ministry of Agriculture before using it.		
Animal Health Centre, Ministry of Agriculture (604) 556-3003 toll free: 1-877-877-2474		

H.1.4 Firearms

Gunshot is an acceptable means of stunning for all livestock, but is not recommended for rabbits and poultry. Gunshot kills by mass destruction of the brain. The degree of brain damage inflicted by the bullet is dependent upon the firearm, nature of the bullet (or shotshell) and accuracy of the shot. The correct selection of ammunition is vital to single-step success.

The following guidelines for targeting and appropriate selection of calibre and ammunition are reproduced from the Canadian Food Inspection Agency's (CFIA) *Meat Hygiene Manual of Procedures*. Although the material presented here is up to date at the time of this guide's printing, it is not an official version of the materials reproduced. The information found on the CFIA's website should always be considered the most current. The CFIA's *Meat Hygiene Manual of Procedures* is at: <http://www.inspection.gc.ca/english/fssa/meavia/man/ch12/annexae.shtml>

H.1.4.1 Firearms: Cattle

Important Factors

- Handling and restraint must be adequate to ensure the safety of the operator and the welfare of the animal.
- Cattle, especially mature males with horns, have very thick frontal bones overlaying the brain.
- Plan the trajectory so that the bolt or projectile travels through the brain (cerebral hemispheres, midbrain and brainstem). The most significant of these are the midbrain and brainstem, which are at the level of the bottom of the attachment of the ears.

Note: Together, the **midbrain** and **brainstem** are responsible for eye movement and body movement, the level of consciousness and maintaining vital body functions, such as breathing and heart rate. The **cerebral hemispheres** are associated with higher brain functions.

The trajectory is especially important when a firearm is used and the shooter is at **ground level** in front of the animal. Be aware that the trajectory of the projectile must pass through the midbrain and brainstem. See picture (b), below.

Landmarks and Approaches

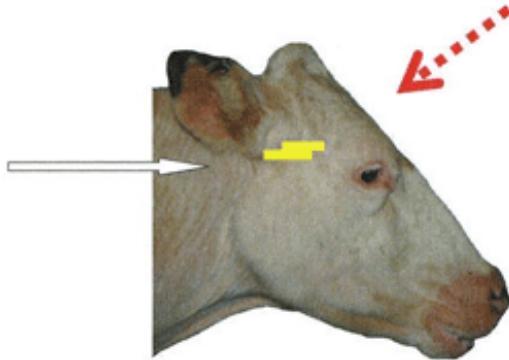
Perpendicular to the Front of the Head Approach

- The entry point is the intersection of the diagonal lines from the middle of the attachment of each horn, or the nuchal crest (the ridge at the back of skull where the neck muscles attach to the head) to the medial canthus (middle corner) of the opposite eye. See pictures (a) and (b), below.
- This is the approach used with captive bolt stunning devices (pneumatic and cartridge fired). This approach is sometimes used with firearms. See pictures (a) and (b), below.

(a) Front View

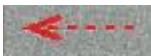
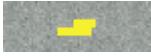


(b) Side View



foramen magnum
brainstem and midbrain
 (in the centre of the skull)

Legend

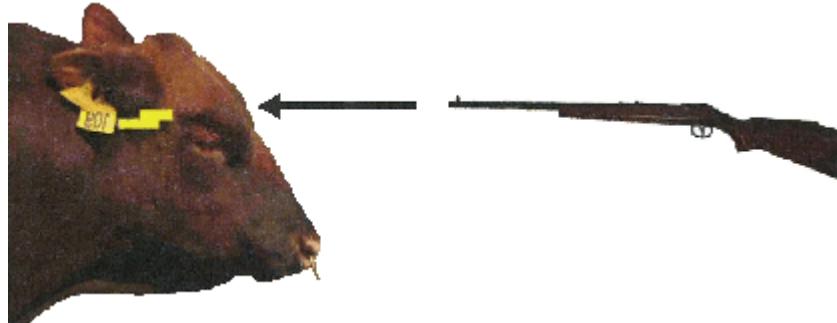
Image	Description
	Landmark and angle relative to the front of the skull when cattle are stunned with either a penetrating captive bolt stunning device or firearm. They are discharged perpendicular to the front of the head.
	Location of the foramen magnum, brainstem and midbrain in centre of the skull.
	Intersection of the diagonal lines indicates the entry point for the bolt or projectile of a mechanical stunning device held perpendicular to the front of the skull.

Ground-Level Approach (Firearm is discharged with the operator standing at ground level in front of the animal.)

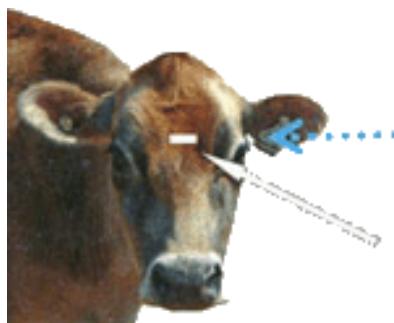
- When an animal is stunned with the operator standing at **ground level** in front of the animal, the entry point of the projectile into the front of the head (skull) must be much lower than what is used with the perpendicular approach, if it is to penetrate the midbrain and brainstem. See pictures (a) and (b), below.
- The midbrain and brainstem are the central and lower portions of the brain. They are located in the central and lower portion of the cranial vault (the space containing the brain). See pictures (a) and (b), below.

Ground-Level Approach

(a) Side View (Firearm and projectile aimed at the midbrain and brainstem.)



(b) Front View



Brainstem – located in the middle of the skull, at the level of the bottom of the ears.

Entry point at the front of the head (in white) – with the operator standing at ground level – if the projectile is to penetrate the midbrain and brainstem.

Legend	
Image	Description
	Level of the brainstem – in the middle of the skull.
	Location of the brainstem and midbrain – middle of the skull.
	Entry point of the projectile (bullet) if the operator is standing at ground level.
	Trajectory of the projectile as it travels to the midbrain and brainstem.

Selection of Firearm and Calibre of Ammunition

- Use the slowest velocity and minimum energy required to effectively stun the animal.
- Maximum velocity < 2000 ft/s to help prevent ricochet from the surface of the skull.
- Maximum energy < 1000 ft/lbs to help prevent skull perforation (exiting the opposite side of the skull).

- Plan the trajectory so the projectile travels through the midbrain and brainstem, which are located at the level of the bottom of the attachment of the ears. See *Important Factors*, above.

Rimfire Rifle Cartridges: Cattle				
Animal	Calibre	Grain	Muzzle Velocity (ft/s)	Energy (ft/lbs)
Calves	.22 S (short) ¹	29	1095	77
Calves	.22 LR (long rifle) ¹	40	1255	140
Steers, Heifers and Cows	.22 LR (long rifle) ¹	40	1255	140
Steers, Heifers and Cows	.22 Winchester Magnum	40	1910	324
Bulls	.22 Winchester Magnum	40	1910	324

¹ Do not use hollow point.

Centrefire Rifle Cartridges: Cattle				
Animal	Calibre	Grain	Muzzle Velocity (ft/s)	Energy (ft/lbs)
Large Bulls	.30 Remington Carbine	110	1990	967 ²

² Upper limit of energy as the projectile may perforate the skull and enter the neck muscle.

Shotgun Shell: Cattle					
Animal	Gauge	Length	Slug	Muzzle Velocity (ft/s)	Energy (ft/lbs)
Large Bulls	.410	2 ½ in.	1/5 oz (87 gr)	1830	651
Large Bulls	.410	3 in.	1/4 oz (108 gr)	1800	788

**Ammunition: Cattle**

H.1.4.2 Firearms: Pigs

Important Factors

- Handling and restraint must be adequate to ensure the safety of the operator and the welfare of the animal.
- Pigs have small brains relative to the size of their head.
- Sows and boars have very thick frontal bones in their skull.
- **Note:** There can be breed variation in head shape in mature animals. "Yorkshire" type animals (not necessarily a Yorkshire hog) have a prominent curvature in the front of their head. See picture (e), below.
- Immature animals and mature animals with a straight front to their head can be stunned by holding the stunning device perpendicular to the front of their head. See picture (d), below.
- This approach may need to be modified in "Yorkshire" type animals with a pronounced curvature to the front of their head, or if an animal is stunned with a firearm. See picture (e), below.
- Plan the trajectory so the bolt or projectile travels through the brain (cerebral hemispheres, midbrain and brainstem). The most significant of these are the midbrain and brainstem, which are located in the centre of the skull at the level of the bottom of the attachment of the ears. See pictures (b), (c), (d) and (e), below.
- Use precise landmarks, as explained below.

Landmarks and Approaches

Market Hog

The entry point is the intersection of diagonal lines from the midpoint of the attachment of each ear to the medial canthus (middle corner) of the opposite eye. This is about $2 \frac{1}{2}$ cm (1 in.) above the eyes. See pictures (a) and (b), below.

Sow or Boar

The entry point is the intersection of diagonal lines from the top of the attachment of each ear to the medial canthus (middle corner) of the opposite eye. See picture (c), below.

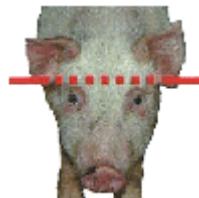
Note: Regardless of the entry point, the angle of the stunning device with the front of the head must result in a path of the bullet or bolt that will intersect with an internal line from the base of one ear to the other, running through the brain stem. See pictures (a) to (e), below.

Front View

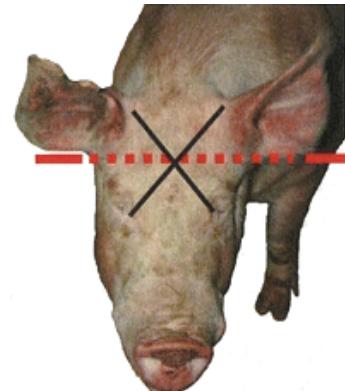
(a) Immature



(b) Immature



(c) Mature

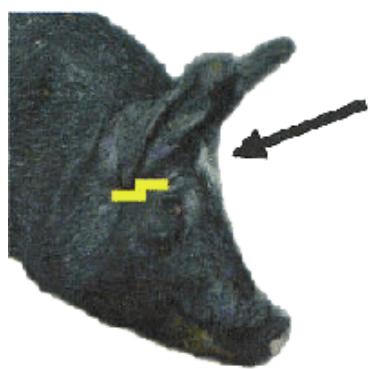


(Continued on next page.)

Side View

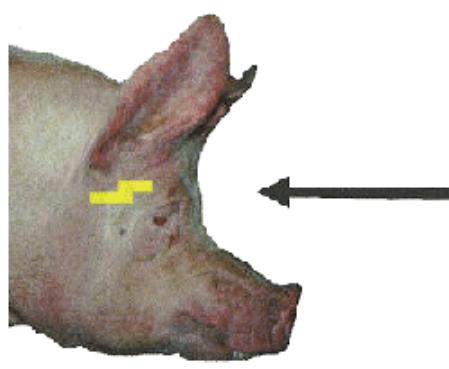
(d) Market Hog ("non-Yorkshire" type)

Straight front



(e) Mature ("Yorkshire" type)

Curved front



Note: Breed and age effect on curvature of the front of the head in the side view. See pictures (d) and (e), above.

Legend	
Image	Description
	Level of the brainstem – in the middle of the skull.
	Location of the brainstem and midbrain – in the middle of the skull.
	Intersection of the diagonal lines indicates the entry point for the bolt or projectile of a mechanical stunning device held perpendicular to the front of the skull.
	Trajectory of the projectile as it travels to the midbrain and brainstem.

Selection of Firearm and Calibre of Ammunition

- Use the slowest velocity and minimum energy required to effectively stun the animal.
- Planning the trajectory is particularly important if the stunner operator is shooting from a standing position on the ground.
- See the *Landmarks and Approaches* section, above.

Rimfire Rifle Cartridges: Pigs				
Animal	Calibre	Grain	Muzzle Velocity (ft/s)	Energy (ft/lbs)
Hogs	.22 LR (long rifle)*	40	1255	140
Sows and Boars	.22 LR (long rifle)*	40	1255	140
Sows and Boars	.22 Winchester Magnum	40	1910	324

* Do not use hollow point

Centrefire Rifle Cartridges: Pigs				
Animal	Calibre	Grain	Muzzle Velocity (ft/s)	Energy (ft/lbs)
Very Large Boars	.30 Remington Carbine	110	1990	967

Shotgun Shell: Pigs					
Animal	Gauge	Length	Slug	Muzzle Velocity (ft/s)	Energy (ft/lbs)
Large Sows and Boars	.410	2 1/2 in.	1/5 oz (87 g)	1830	651
Large Sows and Boars	.410	3 in.	¼ oz (108 g)	1800	788



Ammunition: Pigs

H.1.4.3 Firearms: Sheep, Lambs and Goats

Important Factors

- Handling and restraint must be adequate to ensure the safety of the operator and the welfare of the animal.
- There is a marked variation between the thickness of the skulls of horned and hornless animals.
- Horned animals, especially mature males, have very thick frontal bones.
- Know the approximate location of the brain in the skull.
- Use the appropriate landmarks. See *Landmarks and Approaches*, below.
- Plan the trajectory so the bolt or projectile travels through the following parts of the brain (cerebral hemispheres, midbrain, brainstem). Of these, the midbrain and brainstem are the most important. They are located in the centre of the cranium at the level of the attachment of both ears. See picture (e), below.

Landmarks and Approaches

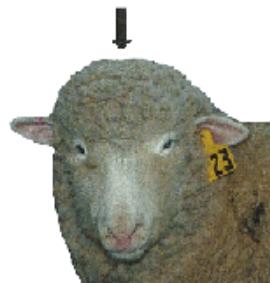
Hornless

- Hold and discharge the mechanical stunning device so the bolt/bullet enters the top of the skull at the midpoint of an imaginary line drawn between the animal's ears. See pictures (a), (b) and (c), below.

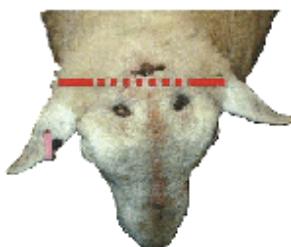
(a)



(b)



(c)



Legend

Image	Description
	Line connecting the base of the two ears. The midpoint of this line indicates the location of the brainstem in the middle of the skull.
	Trajectory of the projectile as it travels to the midbrain and brainstem.

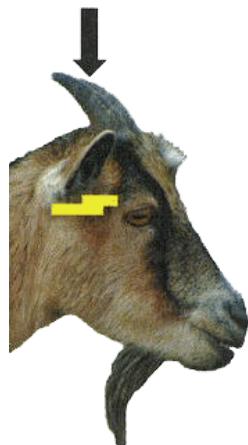
Horned

- Horned sheep and goats must be stunned from the **top of the head** (see the *Hornless* section for landmarks), **unless** the presence of horns prevents the use of this approach. See pictures (c), (d), (e) and (f) for the **top of the head** approach.
- If the configuration of the horns makes it necessary to stun from **poll position**, discharge the mechanical stunning device so that the bolt/bullet enters the skull **just behind** the midpoint of the nuchal crest and is directed towards the animal's mouth. See picture g.
- Stunning in the poll position (just behind the horns or on the nuchal crest) can result in a rapid recovery of consciousness. Therefore, bleeding must be commenced within 15 seconds by cutting both carotid arteries or the vessels from which they originate. See picture (g), below.

(d)



(e)



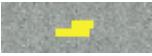
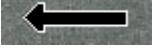
(f)



(g)



Legend

Image	Description
	Location of the brainstem and midbrain – in the middle of the skull.
	Trajectory of the projectile as it travels to the midbrain and brainstem.
	Trajectory of the projectile as it travels to the midbrain and brainstem.

Selection of Firearm and Calibre of Ammunition

- Use the slowest velocity and minimum energy required to effectively stun the animal.

Firearm: Sheep, Lambs and Goats		
	Hornless	Horned
Firearm	.22S (short) is sufficient*	.22 LR (long rifle) *

* Do not use hollow point



Ammunition: Sheep, Lambs and Goats

H.1.4.3 Firearms: Other Species

The CFIA's *Meat Hygiene Manual of Procedures* contains further information for other species (e.g., bison, ostrich and elk): <http://www.inspection.gc.ca/english/fssa/meavia/man/ch12/annexae.shtml>.

H.1.5 Captive Bolt Stunners

Penetrating captive bolt devices consist of a steel bolt, with a flange and piston at one end, which is housed in a barrel. On firing, the expansion of gases, propel the piston forward and force the bolt out of the muzzle of the barrel. The bolt is retained within the barrel by a series of cushions that absorb the excess energy of the bolt and keep it within the barrel. The bolt is retracted back into the gun either automatically or manually depending upon the design of the device.

Captive bolt stunners are powered by gunpowder or compressed air, which must provide sufficient energy to penetrate the skull of the species on which they are being used. Accurate placement, energy of bolt (bolt velocity) and depth of penetration determine effectiveness. Bolt velocity depends on maintenance (especially cleaning) and storage of the cartridge charges.

The following guidelines for targeting and appropriate selection of calibre and bolt length are from the Canadian Food Inspection Agency's (CFIA) *Meat Hygiene Manual of Procedures*. Though the material presented here is up to date at the time of printing, it is not an official version. The information on the CFIA's website should always be considered the most current.

H.1.5.1 Captive Bolt Stunners: Cattle

See the *Important Factors* section for cattle under the *Firearms: Cattle* section, above. Use the appropriate landmarks. See the *Landmarks and Approaches* section for cattle under the *Firearms: Cattle* section, above.

- **Do not** stun from the top of the head or behind the ears, due to the risk of pithing the animal.
- Discharge the stunning device perpendicular to the front of the head.
- For class of animals other than veal calves, the bolt length must be at least 12 cm (4 $\frac{3}{4}$ in.). The bolt length for bulls must be 15 cm (6 in.).
- Calibres (diameter) available for the cartridge bolts include .22, .25, and .33.
- The .25 calibre and larger captive bolt stunning devices with heavier charges are far more effective on bulls than the .22 calibre (Temple Grandin recommends .25 calibre or larger).
- Trigger and contact firing options are available.
- Use the manufacturer's recommended charge, cleaning, maintenance and stunning protocols.
- Assess bolt velocity by using the manufacturer's bolt velocity testing device, or similar means (at the beginning of each slaughter day).

Penetrating Captive Bolt: Cattle

Animal	Calibre	Bolt Lengths	Muzzle Velocity (ft/s)
Calves	.22	Depends on size	Depends on size
Steers, Heifers and Cows	.22, .25, .33	12 cm (4 $\frac{3}{4}$ in.) or 15 cm (6 in.)	≥ 55 m/s (183 ft/s)
Young bulls	.22, .25, .33	15 cm (6 in.)	≥ 72 m/s (236 ft/s)
Mature bulls	.25, .33	15 cm (6 in.)	≥ 72 m/s (236 ft/s) (> 100 m/s preferred)

H.1.5.2 Captive Bolt Stunners: Pigs

See the *Important Factors* section for pigs under the *Firearms: Pigs* section

Use the appropriate landmarks. See the *Landmarks and Approaches* section for pigs under the *Firearms: Pigs* section.

- Bolt length must be at least 12 cm (4 $\frac{3}{4}$ in.).
- Calibres (diameter) available for the cartridge bolts include .22, .25 and .33.
- Larger bolt diameters (.25 and .33) are far more effective for larger animals.
- Use manufacturer's recommended charge, operation, cleaning and maintenance program.

- Assess bolt velocity by using the manufacturer's bolt velocity testing device or similar means (at the beginning of each slaughter day).

Penetrating Captive Bolt: Pigs			
Animal	Calibre (options)	Bolt Lengths	Muzzle Velocity (ft/s)
Hogs	.22, .25, .33	12 cm (4 ¾ in.)	≥ 55 m/s (183 ft/s)
Sows and Boars	.25, .33	15 cm (6 in.)	≥ 72 m/s (236 ft/s)

H.1.5.3 Captive Bolt Stunners: Sheep, Lambs and Goats

See the *Important Factors* section for sheep, lamb and goat under the *Firearms* section.

Use the appropriate landmarks. See the *Landmarks and Approaches* section for sheep, lamb and goat under the *Firearms* section.

- Use the manufacturer's recommended charge, cleaning, maintenance and stunning protocols.
- Use 4 ¾ in. bolt. A shorter bolt may be used on small lambs.
- Bolt velocity and charge must be appropriate to the species, animal size and the presence or absence of horns.
- Assess bolt velocity by using the manufacturer's bolt velocity testing device, or similar means (at the beginning of each slaughter day).

Penetrating Captive Bolt: Sheep, Lambs and Goats	
Hornless	Horned
Small charge	Appropriate charge

H.1.5.4 Captive Bolt Stunners: Other Species

The CFIA's *Meat Hygiene Manual of Procedures* contains further information for other species (e.g., bison, ostrich and elk): <http://www.inspection.gc.ca/english/fssa/meavia/man/ch12/annexae.shtml>.

H.1.6 Electrical Stunning

Electrocution induces death by physical disruption of the brain and/or hypoxia by rendering the brain insensible, followed by cardiac fibrillation. Electrocution is considered humane when adequate current passes through the brain to induce a grand mal seizure and fibrillation of the heart. For electrocution to be considered humane, it must be performed with appropriate equipment – preferably a constant current system.

For animal welfare and human safety reasons, only properly designed and tested devices should be used. Care must be taken that when using electrodes they are applied correctly, before the electrical shock is applied. When the wand is electrified before placement on the animal it is called hot-wanding and is considered inhumane.

H.1.7 Manual Blunt-force Trauma for Small Animals Only

Manual blunt force trauma induces death by physical disruption of the brain. A blow to the head can be an effective means of euthanasia to small animals with thin craniums (i.e., rabbits and poultry). A single, sharp blow must be delivered to the central skull bones with sufficient force to produce immediate depression of the central nervous system and destruction of brain tissue, without breaking open the skull.

To meet humane standards, the object must be brought to the animals head, not the animal to the object. Striking the animal to the object significantly decreases the animal welfare standard. If animals are swung during the application of blunt force trauma, they will experience high stress and a much greater chance of injury with dislocated joints, broken legs, etc. Common acceptable tools used for manual blunt force include ball peen hammers, rebar, wooden clubs and pipes.

H.1.8 Rapid Decapitation with Appropriate Restraint (Killing Cone)

Decapitation is a legal slaughter method for poultry and rabbits, and involves severing the neck, close to the head, by using a sharp instrument. However, research has shown that there may be brain activity for up to 30 seconds after decapitation, and that loss of sensibility may not be immediate. The still-functioning brain may be experiencing significant pain and suffering. Consequently, a slaughter method that stuns the animals before bleeding or decapitation is preferable. However, if rapid decapitation is used, adequate restraint must be applied.

H.2 Confirming Insensibility

Stunning is not the same as killing – in fact, many commonly used methods of stunning are *reversible* and do not immediately kill the animal. With the right equipment, it is possible to carry out an *irreversible* stun, which means the animal will not regain consciousness.

How long the animal remains insensible after reversible stunning depends on the method of stunning, how well it was carried out and the species and age of the animal. It can range from 10 seconds to 60 seconds. This gives the slaughter operator a narrow window of time for the actual kill.

Slaughter animals are normally killed by bleeding out – severing major blood vessels in the neck or at the base of the heart to ensure rapid blood loss. This is also referred to as sticking. The animal dies from blood loss. Animal welfare is not the only reason rapid and complete bleed-out is important: meat quality is also negatively affected by poor bleeding.

Stunned animals that are not bled out immediately may eventually die of the injuries caused (e.g., by a bullet or captive bolt stunner), but can become conscious again before death, in which case they would experience significant suffering.

For most animals, and in most situations, stunning before bleeding is a requirement for slaughter. However, there are two important exceptions:

1. Rapid decapitation for poultry and rabbits with appropriate restraint.
2. Animals killed by ritual slaughter under Islamic or Jewish law.

After stunning and before any further slaughter steps like bleeding or hoisting take place, it is important to check that the stun was successful and the animal is, in fact, insensible. As some methods of stunning cause violent kicking or wing flapping, there may be only a few seconds available to test for insensibility. The signs of insensibility can vary depending on the method of stunning, how well the stun was carried out, and the species and age of the animal, but the following signs of insensibility can be observed with every method of stunning.

Confirmation of insensibility should occur within the first 30 seconds following the stun. Methods for confirming insensibility include:

- Absence of rhythmic breathing.
- Fixed, glassy eyes with no natural blinking or reflexes:
 - The palpebral reflex causes eye movement or blinking when running a finger along the eyelashes.
 - The corneal reflex causes eye movement or blinking when the surface of the eye itself is touched.
 - Lack of palpebral or corneal reflex indicates the animal is insensible. **The palpebral reflex should be checked before the corneal reflex** to avoid the pain of touching the eye of a sensible animal.
- Head is loose and floppy, tongue is flaccid.
- No pain response (e.g., nose pinch or prick).
- No vocalization.

An animal is not insensible if it lifts its head off the ground or attempts to right itself, vocalizes after the stun, shows eye movement or blinking, responds to painful stimuli (e.g., pinching the nose) or fails at any of the above tests. **If an animal is not rendered insensible on the first attempt, the operator must be ready to re-stun immediately.**

Failed stunning can result from inaccurate placement, faulty or improperly maintained equipment, or improper application of the method. A plan for the use of an alternate method should be in place. If a second shot is required when using a captive bolt stunner or firearm, the requirements are:

- If the first attempt was inaccurately placed, the second attempt must be placed in the recommended location.
- If the first attempt was accurately placed, the second attempt should be slightly above and to the side of the first attempt.

Sticking or bleed-out must be carried out quickly enough so that sufficient blood loss occurs before the animal is likely to become conscious again. This is called the stun-to-stick interval. It varies depending on the method of stunning and how well it was applied.

Species, sex and age of the animal may also affect the depth of stun for any given method. For example, using a captive bolt stunner on an old boar will not cause as deep a stun as the same captive bolt stunner on a young market pig, as differences in the shape and thickness of the skull will affect how much damage is done to the brain.

H.3 Ritual Slaughter³

There are two main animal welfare issues with ritual slaughter:

1. Handling and restraint: animals should be restrained in a comfortable upright position.
2. Stunning and sensibility: slaughter without prior stunning.

H.3.1 Handling Recommendations: Sheep and Goats

- Keep the animal in an upright position.
- Apply the neck cut within 10 seconds.
- Release the animal from the upright restraint immediately after the neck cut.
- Do not hoist or dress the animal until it has been confirmed insensible.

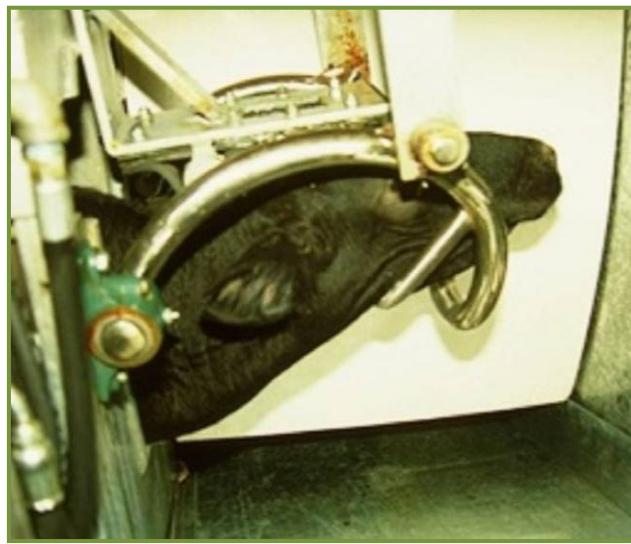


Upright Restraint

³ Information provided by the Ontario Ministry of Agriculture, Food and Rural Affairs, and Dr. Temple Grandin:
<http://www.grandin.com/>

H.3.2 Slaughter without Stunning: Cattle

- Keep cattle calm and avoid all use of the electric prod. Calm cattle bleed out faster.
- Install nonslip flooring in the box and lead-up chute. Cattle panic when they slip.
- Apply the neck cut within 10 seconds of the animal being restrained in the box.
- Cattle should collapse within 20 seconds after the neck cut.
- Cattle vocalization should be less than 10% of animals after application of the neck cut.



Head-Restrained Position

H.3.2.1 Animals Must be Completely Insensible before Further Processing

- The duration of sensibility following neck cut depends upon:
 - method of restraint
 - handling
 - competence of the slaughterperson
 - species
- **Post-cut stunning** should be applied immediately following the cut and is strongly recommended with cattle (see below).

H.3.2.2 Deep Neck Cuts

- Rapid swift knife stroke with a minimum of sawing motions.
- With sheep and goats, **completely** release the restraint immediately after the cut.
- If the neck opening is held tightly by restraints, it may restrict the bleed-out.
- Use a very sharp knife that is twice the width of the neck in length.
- Cattle that do not collapse within 20 seconds should be shot with a captive bolt, before removal from the restraint device. A proper neck cut with sheep and goats should result in almost immediate collapse.

H.3.2.3 Pre-Slaughter Stunning

- Renders the animal insensible (i.e., unable to experience pain or distress).
- Does not stop the heart from beating.
- Does not alter bleed-out.
- Allows the animal to be hoisted immediately, which allows gravity to increase bleed-out.
- Improves worker safety.

H.3.2.4 Post-Cut Stunning of Cattle

- Although the neck veins are cut in cattle, there is still delivery of blood to the brain through the vertebral arteries protected within the backbone.
 - Cattle remain sensible for a longer time than sheep and goats.
- Even well trained, experienced slaughterpersons cannot achieve a 100% effective cut on bovines every time.
 - Cattle can show signs of sensibility for up to two minutes (120 seconds).
- There is no accredited training for Halal slaughter.
- Post-cut stunning supports animal welfare in the event of a poor cut.
- Post-cut stunning does not adversely affect bleeding.
- Post-cut stunning is done in many European countries for ritual slaughter (Kosher and Halal).
- This procedure is accepted by the Halal Monitoring Authority (HMA).

H.3 Animal Husbandry

H.3.1 Shelter, Housing and Handling Facilities

Animals should be kept in an environment that promotes their health and safety throughout their life. For example:

- Shelters, fences, handling facilities and so forth must be designed in such a way that animals cannot easily injure themselves.
- Adequate shelter is necessary to protect animals from adverse weather conditions. Most animals will need access to clean, dry areas to lie down.
- Housing must provide sufficient space for all animals, as well as adequate levels of lighting and ventilation.
- Shelter facilities should not be located in an area that is subject to natural occurrences such as flooding.

H.3.2 Nutrition

Animals must be fed an appropriate diet that promotes their health, and be provided with sufficient clean drinking water.

- Animals must be provided a daily diet that promotes good health and growth. Feed should be provided on a regular schedule and be appropriate to the animal's stage of production.
- Animals should not be fed in a way that would lead to nutrition-based health issues such as founder or grain overload.

- All feed should be free of mould and spoilage and have a minimal amount of dust.
- Enough feeder space should be provided to give all animals access to the feed at the same time and minimize competition, unless self feeding is being practised.
- Appropriate minerals and salts should be provided in their feedstuff or through free choice.
- Feed troughs and buckets should be cleaned regularly and required maintenance performed when needed.
- Every animal must have sufficient clean drinking water. Water sources should be protected from contamination and freezing. Water troughs and buckets must be kept clean and should be checked daily to ensure they are working.

H.3.3 Handling

Handlers must familiarize themselves with the best handling practices of the species with which they are involved. The key to low-stress handling of an animal is understanding its natural behaviour:

- Animals should be handled quietly and with care to avoid unnecessary stress, pain or injury.
- Animals should be handled in a positive way, regularly, to allow the animal to get used to the handler and facilities. This will allow for a calmer animal when it comes time for stunning. For example, handlers could walk the pen with the pigs daily, which would reduce handling difficulty and stress on slaughter day.
- Animals should never be struck with an object or handling tool.
- All livestock handling tools should be used in a way that will not cause injury or distress to the animal. Handling tools should have no objects on them that will injure the animals.
- The use of electric prods should be avoided whenever possible and used only as a tool of last resort. Electric prod use is not acceptable on poultry, rabbits or sheep. It is considered a deliberate act of abuse if electric prods are applied to the anus, eyes, ears, nose or any other sensitive part of the body or if animals are prodded with no place to go.

H.3.4 Humane Transportation of all Animals in Canada

The [Health of Animals Regulations](#) fall under the federal [Health of Animals Act](#). The Health of Animals Regulations' *Part XII Transportation of Animals* defines conditions for the humane transportation of all animals in Canada by all modes of transport. These regulations:

- Prohibit overcrowding, transportation of incompatible animals in the same stall, and transportation of animals unfit to travel.
- Specify appropriate conditions for loading and unloading of animals, adequate feeding and watering regimes, maximum transit times, minimum rest periods and bedding requirements.
- State that animals that become compromised while in transit must not be transported beyond the closest area where they can receive proper medical care.

The Canadian Food Inspection Agency (CFIA) enforces these regulations through routine inspections, unannounced site inspections and response to reports of noncompliance.

H.3.5 Health Care

- Animals should be visually inspected regularly to ensure they are in good health.
- Preventative medicine should be practised when applicable.
- Sick and injured animals should receive appropriate treatment immediately.
- A nonambulatory animal must not be dragged or moved in a way that would cause further pain and suffering.
- When euthanasia is required, it must be performed in a timely manner to lessen any suffering. Only acceptable methods of euthanasia must be used, and the caregiver must insure appropriate for age, weight and species.
- Under no circumstances should compromised animals be transported, unless in consultation with a veterinarian.

For inquiries about abnormal conditions in animals, or abnormalities encountered during slaughter, please contact the Animal Health Centre: <http://www.agf.gov.bc.ca/ahc/>. The Animal Health Centre is based in Abbotsford:

1767 Angus Campbell Road
 Abbotsford BC V3G 2M3
 toll free (B.C. only): 1-800-661-9903
 phone: (604) 556-3003
 fax: (604) 556-3010

H.3.6 Nongovernmental Animal Welfare Organizations

A number of Canadian nongovernmental organizations have animal welfare mandates and assume responsibility for various aspects of animal welfare.

National Farm Animal Care Council

The National Farm Animal Care Council (NFACC) was established in 2005. Membership in the NFACC comprises representatives from 11 stakeholder categories:

- national commodity groups
- retail/distribution sector
- restaurant and food services sector
- processing sector
- provincial farm animal care councils
- transportation and handling sector
- veterinary profession
- animal welfare research and academic community
- federal and provincial governments
- humane societies sector
- general farm organizations

The NFACC's objectives are to:

- Facilitate collaboration among all members with respect to farm animal care issues.

- Facilitate information sharing and communication.
- Monitor trends and initiatives in the domestic and international marketplace.

The NFACC has established guidelines for Codes of Practice (nationally developed guidelines for the care and handling of farm animals) and revised the Code Development Process. The Code Development Process now includes the Scientists' Committee, which reviews the existing science around animal care issues and develops recommendations.

Recommendations for farm animal welfare are in the *National Recommended Codes of Practice for the Care and Handling of Farm Animals*. The codes' development was originally coordinated by the Canadian Federation of Humane Societies, and published by Agriculture Canada before 1995. From 1995 to 2004, the codes were coordinated and published by the Canadian Agri-Food Research Council (disbanded in 2006). In 2006, the National Farm Animal Care Council took on the responsibility for the codes.

The codes are reviewed by committees of producers, veterinarians, transporters, researchers, processors, government regulators, and representatives of animal care and welfare organizations. They provide humane care and handling standards for farm animals during all life stages, from the place of origin through to slaughter.

Recommended codes of practice have been produced for pullets, layers, spent fowl, chickens, turkeys and breeders, ranched mink, ranched fox, dairy cattle, beef cattle, pigs, sheep, farmed deer, veal calves, goat, bison, and horses. For more information, see *Codes of Practice for the care and handling of farm animals*: <http://www.nfacc.ca/codes-of-practice>.

Canadian Federation of Humane Societies

The Canadian Federation of Humane Societies, a registered charity, is a national organization representing and speaking on animal welfare issues on behalf of more than 100 provincial and local humane societies, Societies for the Prevention of Cruelty to Animals and branches, and their more than 400,000 members. The Canadian Federation of Humane Societies works with governments, industry, animal rights groups and the public to improve conditions for all animals including livestock, wildlife, research animals, and pets.

Canadian Veterinary Medical Association

The Canadian Veterinary Medical Association has identified animal welfare as one of its three top priorities. The Canadian Veterinary Medical Association Animal Welfare Committee addresses a wide range of issues relating to animal welfare and veterinary involvement. The Canadian Veterinary Medical Association has produced a series of animal welfare position statements (e.g., nonambulatory animals, euthanasia, electro-immobilization), as well as general position statements (e.g., dentistry on animals, biologics, microchip implants) on a number of current issues.

Canadian Council on Animal Care

The Canadian Council on Animal Care is the national organization responsible for overseeing the care and use of animals involved in Canadian science. It sets and maintains science-based standards for the physical and psychological well-being of these animals and conducts assessments of institutions using animals for research, teaching, and testing at least every three years, with follow-up visits

where necessary. Institutions assessed by the Canadian Council on Animal Care and found to be in compliance with Canadian Council on Animal Care guidelines and practices are awarded a Certificate of Good Animal Practice. This certificate provides clear evidence that an institution meets the recognized standard for animals used in research, teaching, and testing whether they be laboratory animals, farm animals or wildlife.

Provincial Farm Animal Care Organizations

In Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, industry-driven farm animal organizations promote responsible humane animal care in their livestock sectors. One of their activities is to provide peer counselling to fellow producers and report serious cases of neglect or abuse to the appropriate authorities – such as the Societies for the Prevention of Cruelty to Animals and the CFIA. As information and education providers, and through other proactive efforts, they bring about changes to legislation and practices relating to farm animal treatment. Farm animal care groups are also involved in supporting and initiating farm animal welfare research.

B.C.'s Farm Animal Care Council may be found at <http://www.bcfacc.ca/>, 604-287-3276.

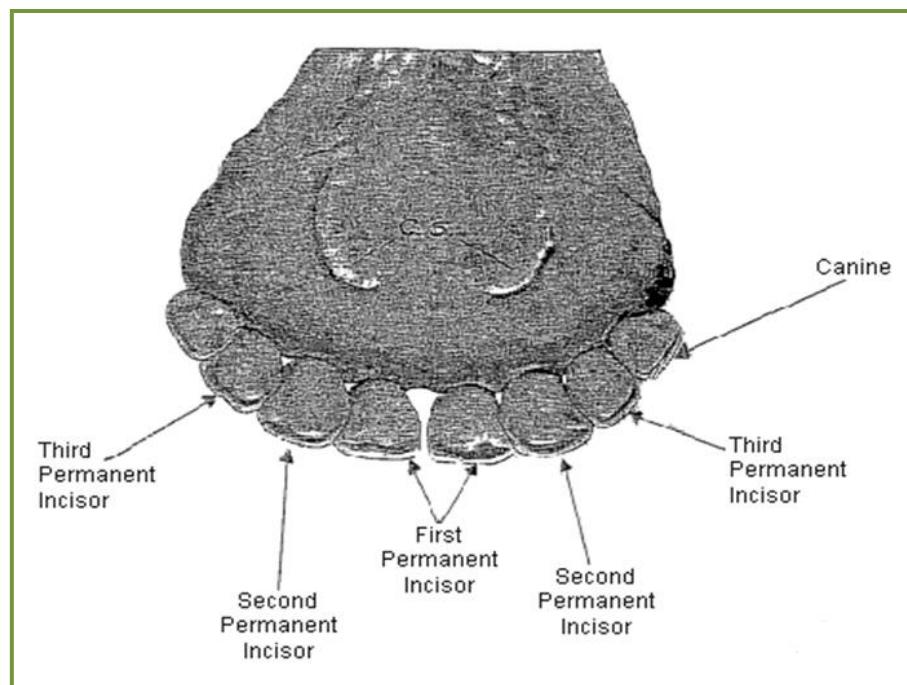
Table 11: Canadian and B.C. Legislation on Farm Animal Welfare

Canada (Federal) Legislation		
Act/Regulations	Scope	Enforced By
<u>Health of Animals Act</u> <u>Health of Animals Regulations</u>	Protects all animals from undue suffering during transport and loading.	CFIA inspectors Police officers Designated provincial authorities: • B.C. SPCA • B.C. Minister of Transport
<u>Meat Inspection Act</u> <u>Meat Inspection Regulations, 1990</u>	Protects food animals during handling and slaughter in federally registered slaughter establishments.	CFIA inspectors Police officers
<u>Criminal Code of Canada</u>	Prohibits cruelty to animals that is wilful or without lawful excuse.	Police officers SPCA
British Columbia Legislation		
Act/Regulations	Scope	Enforced By
<u>Prevention of Cruelty to Animals Act</u>	Protects all animals, excluding wild animals, from distress during any activity excluding generally accepted practices of animal management.	B.C. SPCA Police officers
<u>Milk Industry Act</u> <u>Milk Industry Standards Regulation</u>	Protects dairy cattle during handling and milking.	Inspectors designated by the Ministry of Agriculture
<u>Agricultural Produce Grading Act</u> <u>Hatchery Regulation</u>	Ensures adequate housing of poultry.	Inspectors designated by the Ministry of Agriculture
<u>Food Safety Act</u> <u>Meat Inspection Regulation</u>	Allows cattle, horse, sheep, swine, goat, domestic rabbit, poultry, deer, reindeer, moose, elk and bison to be humanely slaughtered.	Provincial authorities designated by the Ministry of Health: • BC Centre for Disease Control • Regional health authorities

APPENDIX I: DETERMINING WHETHER AN ANIMAL IS UNDER 30 MONTHS (UTM) OR OVER 30 MONTHS (OTM) USING DENTITION

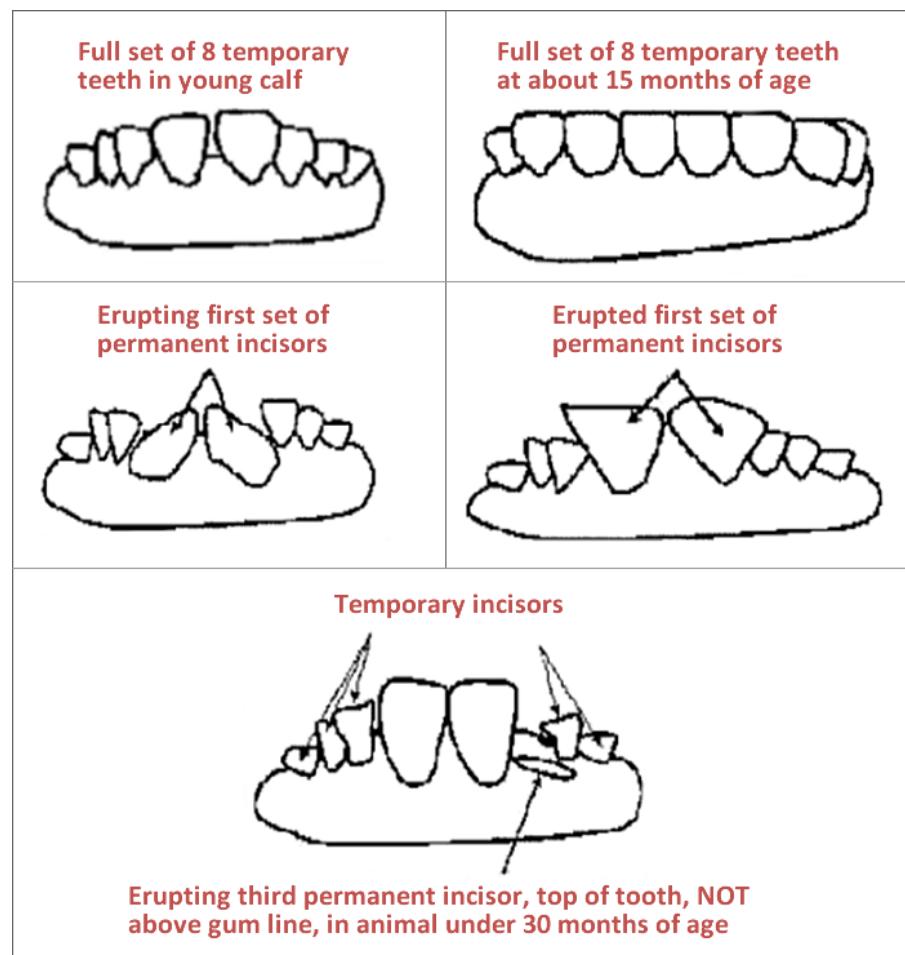
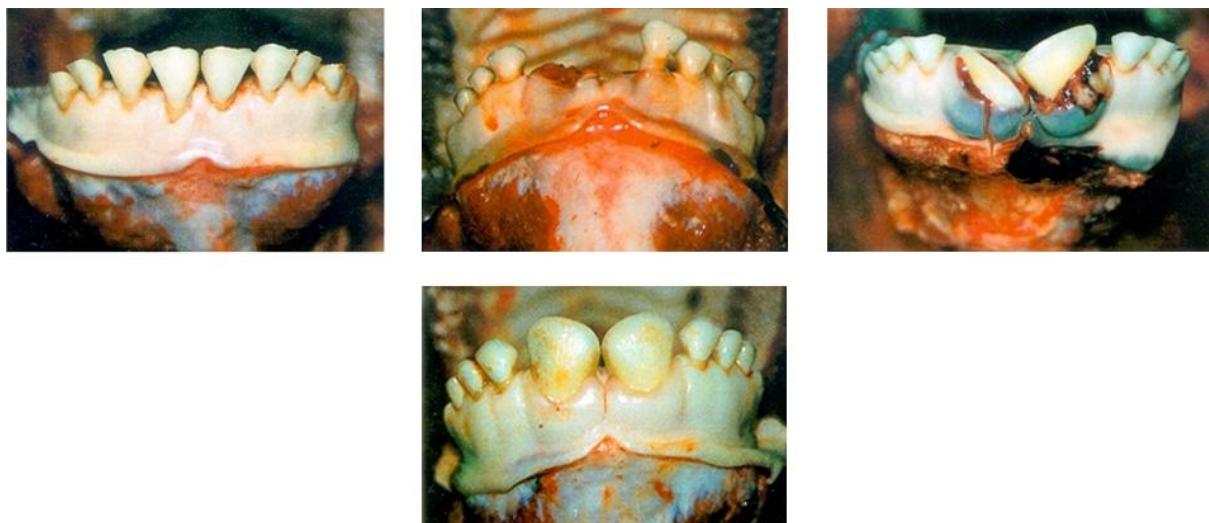
- A producer may present a birth certificate or other documentation if it clearly shows the identification of the animal and the birth date.
- For most animals, dentition (teeth pattern) is used to determine age.
- An animal is considered to be over 30 months of age (OTM) if more than two of the incisors are above the gum line (Figure 4).

**Figure 4: Cattle Dentition: Permanent Teeth Lingual Aspect
Incisor and Canine Teeth in Five-Year Old Ox⁴**



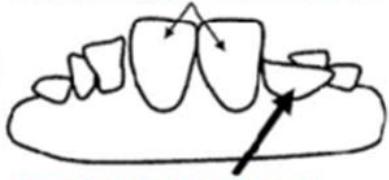
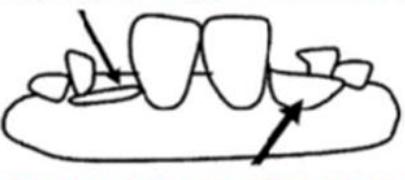
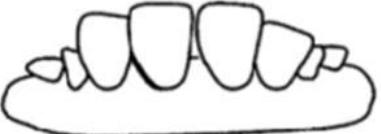
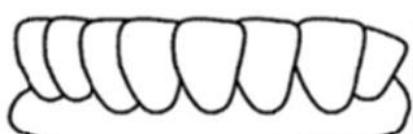
⁴ Extracted from: Sisson and Grossman's *The Anatomy of the Domestic Animals: Volume I*.

Figure 5: Cattle Dentition: Illustrations of Dentition in Cattle under 30 Months (UTM)



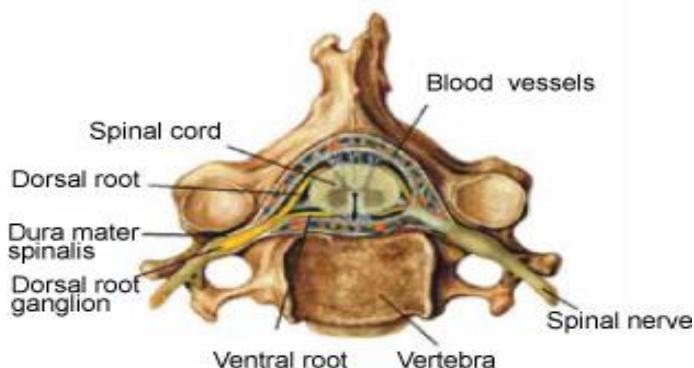
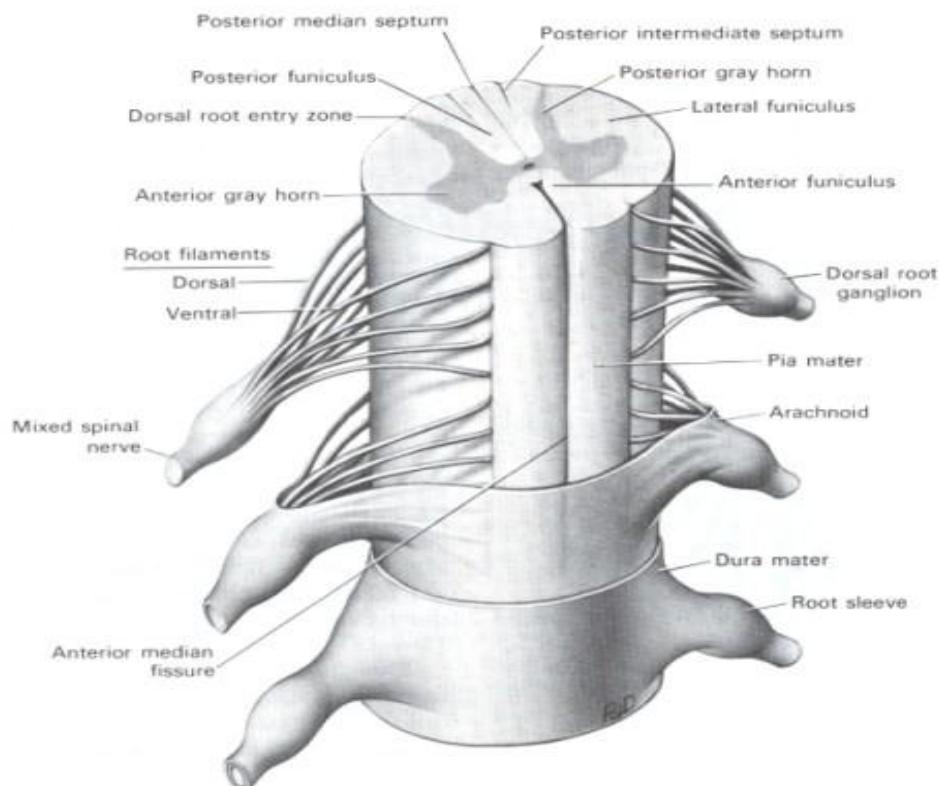
**Figure 6: Cattle Dentition: Illustrations of Dentition
in Cattle 30 Months or Older (OTM)**



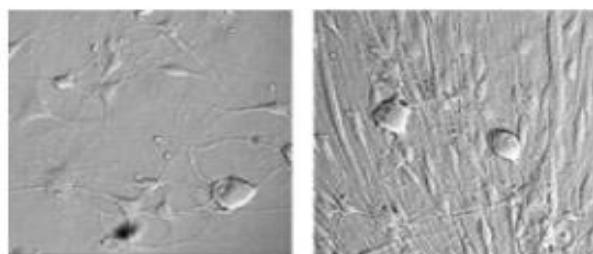
<p>First set of permanent incisors</p>  <p>Erupting third permanent incisor, top of tooth above gum, animal 30 months of age</p>	<p>Erupting fourth permanent incisor</p>  <p>Erupting third permanent incisor (with top corners of the tooth above the gum), animal 30 months of age or older</p>
 <p>Four permanent incisors (with top corners of the second set above the gum), animal 30 months of age or older</p>	 <p>Full set of permanent incisors, animal over 48 months of age</p>
 <p>Age 72 months, medial incisors showing wear and levelled tops</p>	 <p>Age 120 months or older, permanent incisors showing wear and space between the teeth</p>

APPENDIX J: UNDERSTANDING THE DORSAL ROOT GANGLION

Figure 7: Dorsal Root Ganglion



from: Weitz(1998) Atlas der Anatomie Weltbild Verlag



APPENDIX K: SLAUGHTER WASTE DISPOSAL AT CLASS D AND E RURAL SLAUGHTER ESTABLISHMENTS

K.1 Background

Slaughter and poultry processing operations generally do not pose a major threat to the environment. However, poor slaughter-waste management practices can cause environmental risks, such as contamination of groundwater and/or surface water, attraction of vectors (i.e., disease carriers such as mosquitoes), pests and dangerous wildlife, and air emissions of particulates.

To address these risks, on-farm slaughter waste disposal is regulated by the Ministry of Environment (MOE) and governed under the *Environmental Management Act*, primarily by the *Code of Practice for the Slaughter and Poultry Processing Industries*, referred to here as the “Code of Practice” and available at: <http://www.env.gov.bc.ca/epd/industrial/regs/codes/slaughter/pdf/cop-sandppi.pdf>.

The Code of Practice addresses air quality management, wastewater discharge, and management of waste solids and semi-solids. It also outlines MOE registration, monitoring and record-keeping requirements. While all Class D and E operators must manage their slaughter waste in an environmentally sound manner, the size of your operation determines what specific regulations you are required to follow.

K.2 Code of Practice Exemption for Small Producers

Class D and E operations producing small quantities of slaughter waste are considered to pose a low environmental risk, and are therefore exempt from having to register and follow requirements under the Code of Practice (Tables 12 and 13, below).⁵ **To be considered exempt, your annual slaughter production must be below the Code of Practice's exemption threshold**, which is:

- 5 tonnes (live weight)/year for red meat (11 animal units).
- 1.5 tonnes (live weight)/year for poultry (3 animal units).

Class D and E slaughter establishments that are **on an agricultural operation** and meet these exemption thresholds are still obligated to ensure they are not causing environmental damage. However, instead complying with the Code of Practice, they must comply with the [Agricultural Waste Control Regulation](#) (AWCR)⁶ when managing their agricultural and slaughter wastes.

Requirements under the Agricultural Waste Control Regulation include:

- Use, store, and manage agricultural wastes, wood waste and animal mortalities in an **environmentally sound manner that prevents pollution**.
- Store only those agricultural wastes on-farm that are produced or used on that farm.
- Any waste storage facility (including composting or curing piles, and field storage) must be located 15 m from a watercourse, and 30 m from a domestic water source.

⁵ This exemption became effective in December 2010.

⁶ For more information on the Agricultural Waste Control Regulation (AWCR), please see the Ministry of Environment website: http://www.env.gov.bc.ca/epd/industrial/regs/ag_waste_control/index.htm

- All wastes must not be directly discharged into a watercourse or groundwater.
- In areas of the province with 600mm of rain or more, stored waste must be covered in winter months.
- **Note:** Covering waste storage facilities/areas year round is a recommended best management practice that prevents access by animals or other vectors, and reduces the amount of leachate⁷ generated from precipitation.

Table 12: Ministry of Environment (MOE) Categorization of Red Meat Class D and E Facilities under the Code of Practice

Annual Red Meat Slaughter Production	Equivalent Animal Units*	Wastewater Discharge Volume	MOE Classification	Registration with MOE Required?
Less than 5 tonnes	Up to 11	—	Exempt	No
5 tonnes or more	Over 11 (11–25 Class D)	Less than 5 m ³ (1,100 gal) <i>per slaughter day</i>	Category A	Yes
		5 m ³ or more (1,100 gal) <i>per slaughter day</i>	Category B	Yes

* 1 animal unit = 0.454 tonnes (live weight)

Table 13: Ministry of Environment (MOE) Categorization of Poultry Class D and E Facilities under the Code of Practice

Annual Poultry Slaughter Production	Equivalent Animal Units	Wastewater Discharge Volume	MOE Classification	Registration with MOE Required?
Less than 1.5 tonnes	Up to 3	—	Exempt	No
1.5 tonnes or more	Over 3 (3–10 Class E) (3–25 Class D)	Less than 5 m ³ (1,100 gal) <i>per slaughter day</i>	Category A	Yes
		5 m ³ or more (1,100 gal) <i>per slaughter day</i>	Category B	Yes

⁷ “Leachate” is a solution containing soluble materials (e.g., soil nutrients, salts and contaminants) picked up by water percolating through a solid material such as manure, a compost pile, wood waste or landfill material.

The **red meat** and **poultry meat** exemption thresholds are different due to the higher volumes of wastewater produced by poultry slaughter facilities, and the high concentrations of nutrients, compared to red meat slaughter facilities. The volumes of wastewater generated per unit production are two to four times higher for poultry (12 to 25 L/kg LWK) than red meat (4 to 17 L/kg LWK). So the potential environmental impact may be greater if based on the same annual production quantity.

Table 14 shows a comparison of the approximate number of animals to animal units. These are based on an average weight for each type of livestock, which gives an estimate of the number of animals equivalent to 5,000 kg (red meat) or 1,500 kg (poultry meat). Since this is an estimate, it is important to obtain and use actual weights to calculate annual production, if possible.

Table 14: Measurement Equivalencies (454 kg = 1,000 lbs = 1 animal unit)

Type of Livestock	Average Live Weight (kg)	Approximate Number of Animal Units	Approximate Number of Animals
		per average weight	per 5,000 kg
Cattle UTM*	630	1.39	8
Cattle OTM**	604	1.33	8
Bison	410	0.90	12
Pork	100	0.22	50
Sheep/Lambs	55	0.12	91
Goats	28	0.06	179
			per 1,500 kg
Turkeys	11	0.02	136
Chicken (Roaster)	3.63	0.01	413
Chicken (Broiler)	2.12	0.0047	708
Chicken (Cornish)	0.95	0.0021	1,579

*UTM: under thirty months of age. **OTM: over thirty months of age

Class D and E slaughter operations that are **not exempt** must **register with the MOE** and follow all Code of Practice requirements. These are classified as either “Category A” or “Category B,” based on their annual production and daily wastewater discharge volumes.⁸

⁸ The maximum slaughter volume allowed for Category A facilities is under 60 tonnes/year for red meat and under 40 tonnes/year for poultry meat. The maximum slaughter volumes for D and E licences are below these thresholds (12 and 4.5 tonnes respectively), so the non-exempt D and E licences will be Category A facilities.

Class D and E operators that slaughter less than 11 animal units of red meat or less than 3 animal units of poultry are exempt from the Code of Practice requirements.

The rest of the information in this appendix does not apply to these exempt operations.

K.3 Code of Practice Requirements for Non-Exempt Class D and E Operators

Class D and E operators that slaughter more than 11 animal units of red meat, or more than three animal units of poultry must follow all Code of Practice requirements for slaughter waste disposal, including monitoring and record-keeping. **You must register with the MOE by completing and submitting the MOE registration form:**

<http://www.env.gov.bc.ca/epd/industrial/regulations/codes/slaughter/pdf/reg-form.pdf>. The annual fee is \$100/waste-type discharge (e.g., \$100 for solid/semi-solid waste and \$100 for wastewater disposal).

There are several disposal options for each type of slaughter waste. Some are probably not feasible for most Class D and E operators. For example, incineration requires building costly infrastructure. As well, many local governments will not accept animal slaughter waste in public landfills or sewage systems. Your disposal options may also be limited by your property's site conditions.

Table 15: Waste Disposal Options for Solid, Semi-Solid and Liquid Waste

Type of Waste	Description	On-farm Disposal Options	Off-farm Disposal Options
Liquid Waste (Wastewater)	Wash water from slaughtering activities. May include blood, fats, oil and grease.	<ul style="list-style-type: none"> • Surface disposal • Sub-surface disposal 	<ul style="list-style-type: none"> • Disposal into an authorized public sewage system may be possible, but often requires costly pre-treatment. Contact your local government for more information.
Solid Waste	Feathers, hides, offal, bones, carcasses or parts of carcasses, manure, etc.	<ul style="list-style-type: none"> • Onsite burial or landfill • Composting • Incineration* 	<ul style="list-style-type: none"> • Slaughter waste may or may not be accepted by your local public landfill(s).⁹ • Contact your local government (municipality or regional district) for more information and to obtain any required approvals. • Delivery to a commercial composter or waste pick up may also be an option in your area.
Semi-Solid Waste	Blood, fats, oils and grease, as long as they are separated from wastewater.		

*On-farm incineration is an option for solid waste disposal, but it is not likely to be an economically viable option for most Class D and E operators due to costly construction requirements.

⁹ Disposal of slaughter waste in a public landfill or public sewage system is regulated by local and/or regional governments.

The following is a summary of the Code of Practice for the Slaughter and Poultry Processing Industries. For more information, please see the additional information on the MOE's website:
<http://www.env.gov.bc.ca/epd/industrial/regulations/codes/slaughter/index.htm>

K.4 Wastewater Disposal

Wastewater from slaughter 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.

Wastewater disposal options include surface discharge/wastewater irrigation and subsurface discharge.

K.4.1. Option 1: Surface Discharge/Wastewater Irrigation

K.4.1.1 Category A and B Facilities

1. Category A and B facilities must:
 - Keep records of their annual production and amount of wastewater discharged per day.
 - Take measures to control fugitive dust and odour caused by the slaughter operation.
2. Wastewater from the slaughter process must not be directly discharged into groundwater or into a watercourse.
3. Operators must ensure that wastewater does not run off into surface watercourses (rivers, lakes, streams, marshes, ravines) or into drainage ditches leading to a creek or stream. As well, all solids and semi-solids should be filtered out and disposed of appropriately (i.e., they cannot be simply left on the surface of the land).
4. Wastewater must not be discharged onto land being used to grow crops for human consumption (e.g., acceptable areas would be forest, a non-edible garden, a field for pasture or growing forage, etc.).

K.4.1.2 Category A Facilities

A Category A facility may discharge directly onto the surface of the ground, in accordance with requirements **1** to **4**, above. For example, if you are slaughtering in an empty field, you could simply allow wastewater to run onto the ground at your slaughter site.

K.4.1.3 Category B Facilities: Additional Requirements

As well as following requirements **1** to **4**, above, Class D and E operators generating 5 m³ (1,100 gal) or more per day may use the wastewater for irrigation, but must take further measures to prevent contamination of ground and surface water:

- Wastewater must be tested and meet minimum standards for water quality before land application, including wastewater containing domestic sewage. Records of test results must be kept for 10 years.
 - Farmers with category B facilities may discharge up to 100 m³ (22,000 gal) of wastewater annually onto the surface of farmland for irrigation, without meeting these minimum standards for water quality, if it is discharged at an agronomically sound rate.
- A nutrient management plan (NMP) must be completed to determine an appropriate application rate.

Category B operators should contact their MOE office for more information. For details on minimum standards for water quality, see the MOE's fact sheet, *Code of Practice for the Slaughter and Poultry Processing Industries*: <http://www.env.gov.bc.ca/epd/industrial/regs/codes/slaughter/pdf/fs1.pdf>.

How Much Wastewater am I Generating?

If you do not have a flow meter, you can use a simple method to estimate your water use and wastewater generated during slaughter:

- If you are using buckets of a known volume (e.g., 1 gallon), count the total number used during slaughter.
- If you are using a hose, calculate how long it takes (e.g., 1 minute) to fill a bucket of a known size (e.g., 1 gallon) to estimate the flow rate from your hose (e.g., 1 gallon/minute). From that, multiply your flow rate by the total amount of time your hose is in use to calculate your total water use (e.g., 10 minutes = 10 gallons at an estimated flow rate of 1 gal/minute).
- Calculate the volume discharged per day (in cubic metres), using the following conversion factors, for gallons to cubic metres:
10 UK gals. X 0.0046 = 0.05 cubic metre; or 10 US gals. X 0.0038 = 0.04 cubic metre

K.4.2. Option 2: Subsurface Discharge

K.4.2.1 Category A and B Facilities

Category A and B

Class D and E operations can discharge wastewater into a subsurface disposal system as long as all of the following conditions are met:

1. Discharge does not surface or cause the groundwater table to be raised to the surface.
2. The site is regularly inspected to ensure discharge has not surfaced.
3. Fugitive dust and odours are controlled.
4. Records are kept of the amount of wastewater discharged.
5. If slaughter wastewater contains domestic sewage, it must be from the slaughter facility and the subsurface disposal system must be designed by a **qualified professional**.¹⁰

Category B: Additional Requirements

In addition to following the Category A requirements outlined above, all Category B operations are required to ensure any system installed or repaired after September 2007 is designed by a qualified professional and installed according to that design. Hiring a qualified professional can be costly, and may not be a viable option. Contact your MOE office and see MOE's fact sheet mentioned above.

¹⁰ **Qualified professional:** someone who is registered in British Columbia with a professional organization, or through suitable education, experience, accreditation and knowledge, may reasonably be relied on to provide advice on landfill design and groundwater impacts.

K.5 Solid and Semi-Solid Waste Disposal

There are two feasible options for onsite solid and semi-solid slaughter waste disposal: burial/landfill and composting. Incineration is also allowed under the Code of Practice, but is unlikely to be a viable option for Class D and E licensed operators due to the high infrastructure costs.

K.5.1. Option 1: Onsite Burial/Landfill

The following information applies to all non-exempt Class D and E operations (all Category A and B).

K.5.1.1 General Requirements

Having a suitable landfill site location is critical to preventing environmental impacts. Your landfill (or burial trench) must be located on a site that:

- Has a slope of less than 0.5%.
- Is at least 50 metres from the outside boundaries of the landfill and the property line.
- Is at least 100 metres from any surface water.
- Is at least 300 metres from a residence, hotel, restaurant, school, church, public park, and water supply well or water supply intake.
- Is at least 30 metres from another existing or closed landfill.
- Is not located within the 200-year flood plain.

Your landfill must also be:

- Not more than 2 metres wide.
- At least 1 metre below ground level.
- At least 4 metres above the seasonal high-water table (measured from the bottom of the landfill).
- Covered immediately after disposal.
- Not accessible to wildlife and domestic animals.

You are required to have a **qualified professional** evaluate your landfill and design a plan for monitoring and assessing groundwater impacts if **any of the following conditions** exist:

- You do not have a suitable site (as described above) on your property.
- You are disposing of more than 5,000 kg/hectares/year.
- Your farm is located in an area with more than 600 mm/year of precipitation (which increases the risk of groundwater contamination).

No other household waste can be buried in a landfill used for the disposal of slaughter waste.

You must **keep records** of:

- Your landfill location(s).
- The volume of waste buried per year.

K.5.1.2 A Note on SRM Disposal – for Cattle Producers Only

You are allowed to dispose of specified risk materials (SRM) waste from cattle in your onsite landfill along with other slaughter waste. This kind of landfill is called a “nonsegregated” landfill. All

contents of a nonsegregated landfill are considered to be SRM. You could also have a separate “segregated” landfill exclusively for SRM.¹¹

You must be especially diligent in ensuring that other ruminants or animals (e.g., raptors) that could become infected cannot access SRM waste or transport the SRM off-site.

K.5.2 Option 2: Composting

Under the Code of Practice, you are allowed to compost slaughter waste on your farm if the quantities are **not more than**:

- 30 tonnes/year of red meat offal.
- 30 tonnes/year of combined red meat and poultry offal.
- 10.5 tonnes/year of poultry only offal.

Class D and E operations are unlikely to produce waste volumes that exceed these thresholds due to the slaughter volume restrictions on these licences (i.e., 25 and 10 animal units respectively). For this reason, composting following Code of Practice requirements for composting should be a viable option for the vast majority of D and E operators.

For more details, see:

- *Division 3 – Composting in the Code of Practice for Slaughter and Poultry Processing Industries:*
<http://www.env.gov.bc.ca/epd/industrial/regulations/codes/slaughter/pdf/cop-sandppi.pdf>.
- The MOE’s fact sheet, *Composting Solid or Semi-solid Wastes*:
<http://www.env.gov.bc.ca/epd/industrial/regulations/codes/slaughter/pdf/fs4.pdf>.

If your slaughter waste quantities for composting exceed the above limits, you must compost according to the Organic Matter Recycling Regulation. These requirements are not described in detail here, and you should contact your local MOE office for more information.

Finished compost (compost product) can be spread on the farm, disposed of in a landfill (see Option 1 above) or incinerated.

K.5.2.1 General Requirements

At all times, operators must take measures to:

- Prevent the formation and escape of leachate.
- Prevent attraction and access of wildlife and vectors.
- Control fugitive dust and odours.

Ensuring that your compost pile is **covered** (e.g., with old hay or shavings to control odour, then covered with a tarp), **located on an impermeable surface** and **bermed** should achieve this. Examples

¹¹ The Canadian Food Inspection Agency (CFIA) regulates the transport and disposal of specified risk materials (SRM) once they leave the farm of origin. It does not regulate on-farm SRM disposal.

of acceptable impermeable surfaces include a concrete pad, a clay soil barrier and a tarp with hay bales around the perimeter. Fencing may be required to keep larger wildlife out in some areas.

The composting and curing piles must be located:

- On an impermeable surface and bermed if necessary (to prevent the escape of leachate).
- 15 metres away from any watercourse.
- 30 metres away from a domestic water source

If you do not have a site on your property that meets these criteria, please contact your local MOE office to discuss your options.

In order to produce a beneficial compost product that can safely be applied on your farm, you must meet minimum time and temperature requirements for composting and curing.

K.5.2.2 Temperature Requirements

- The composting pile must be raised to a temperature of **40⁰C or higher** and maintained for a **minimum of five days**.
- During the five-day period, the **temperature must exceed 55⁰C for at least four hours**. This is easily achievable if the pile is properly aerated.
- **Once the temperatures and time** periods for composting have been met, the piles must be retained in **curing piles for at least 21 days** to allow the compost pile to stabilize. The curing pile must not re-heat to higher than **20⁰C** above the ambient temperature.

K.5.2.3 Nutrient Sampling

Soil sampling and sampling your compost product to determine nutrient levels is required annually for the first two years (once a year), and again every three years after that if spreading of the compost product on your land continues.

Guidelines for how to do proper soil sampling have been developed by the Ministry of Agriculture, and are available at http://www.agf.gov.bc.ca/resmgmt/publist/600Series/631500-1_Soil_Sampling.pdf

Sampling results are used in your nutrient management planning.

K.5.2.4 Nutrient Management Planning

Before land application of finished compost, you must complete a **nutrient management plan (NMP)** to determine an **agronomically sound application rate** for your particular “application site.” This application rate will depend on the size of the site where compost will be applied, the nutrient levels in your soil and compost product, any other fertilizing materials that may be applied, and the crop’s requirements.

Detailed information on completing an NMP can be found in the [Nutrient Management Reference Guide](#)¹². Another useful source of information is the *Soil Amendments* section of the *Environmental*

¹² You can access the Ministry of Agriculture’s *Nutrient Management Reference Guide* at:
http://www.agf.gov.bc.ca/resmgmt/EnviroFarmPlanning/EFP_Nutrient_Guide/Nutrient_Guide_toc.htm

Farm Planning Guidelines:

http://www.agf.gov.bc.ca/resmgmt/EnviroFarmPlanning/EFP_Refguide/2010_Documents/06_Soil%20Amendments.pdf

K.5.2.5 Record Keeping

You must keep records, including the following:

- The volume of compost spread on your property per year.
- The location of where compost is spread on your property.

K.5.2.6 MOE Notification

Thirty days before the first land application of the compost product of the year, you must notify your local MOE office. A form has been developed for this purpose, on the MOE website:

<http://www.env.gov.bc.ca/epd/industrial/regulations/slaughter/pdf/not-form.pdf>

K.5.2.7 A Note on Composting SRM – for Cattle Producers Only

Similar to SRM disposal in a landfill, if SRM is not segregated from other compost material, the entire compost pile must be treated as SRM.

Land application of composted SRM is restricted to land that:

- Will not be used to grow crops for human consumption.
- Will not be directly grazed by domestic animals for five years.

If SRM are segregated, you could dispose of the SRM in a small landfill and compost the remainder of the non-SRM solid and semi-solid wastes. This would keep the size of landfill small, and allow more options for land application of the compost product.

APPENDIX L: LICENCE APPLICATION FORM (SAMPLE)

Please complete and submit a copy of your completed application form as part of your licence application package to your regional health authority. Please ensure you have signed and dated your application form.

Applicant Information

Note: Only spouses may jointly hold a Class D or E licence.

Full name of licence applicant(s): _____

Farm/legal business name: _____

Farm/business owner name: _____
(if different from the applicant) _____

Ownership of farm/business is: sole proprietorship corporation partnership other

Legal property owner name: _____
(if different from the applicant) _____

Physical address of proposed Class D/E slaughter location: _____
Street/RR _____

City _____ *Postal Code* _____

Applicant mailing address: _____
(if different from above) _____
Street / RR / PO Box _____

City _____ *Postal Code* _____

Phone #: _____ **Alternate phone #:** _____ **E-mail:** _____

I am applying for a: Class D licence Class E licence

Regional District: _____ **It is a:** Designated area Nondesignated area

Are there zoning/bylaw restrictions prohibiting slaughter on your farm/proposed site? Yes No

Date Class E feasibility study approved: DD / MM / YYYY N/A (I am in a designated area)

Nature of Proposed Operations

I am applying for a licence to slaughter the following species (please check all that apply):

Cattle
 Bison
 Goats

Sheep/Lamb
 Swine/Hogs
 Chicken

Turkey
 Goose
 Ostrich

Duck
 Rabbit
 Deer

Other (please specify): _____

Licence Terms and Conditions

The following terms and conditions apply to all Class D and E licences:

- Licences are nontransferable to another individual or property, and are valid only for the individual(s) and rural slaughter establishment specified in the licence.
- All sales of meat are limited to within the regional district in which the meat was produced.
All slaughter activities must be carried out according to the approved food safety plan associated with the licence.
- Licence holders may choose to slaughter under their licence, or may employ an experienced slaughter operator to slaughter under their licence.
- All persons slaughtering under a licence must complete SlaughterSafe training and must be identified in the approved food safety plan for that licence.
- Processing of carcasses is limited to:
 - Halving or quartering of red meat (beef and other), and
 - Removal of head, wings and legs from poultry.
- Any changes to a licence holder's food safety plan must be communicated in writing to the regional health authority that issued the licence.
- All licensed operators must ensure safe, sanitary water free from bacteriological contamination is used in the slaughter process.

The following terms and conditions apply to Class D licences only:

- Slaughter volume is limited to a **total** of 25 animal units (*1 animal unit = 454 kg (1000 lbs) live weight*)* per year.
- Licences are valid for a five-year term.
- All meat and meat products originating from a Class D establishment must be labeled as follows:
"Class D – Not government inspected. For sale and use only in the regional district of <insert name of regional district in which your farm is located>"

The following terms and conditions apply to Class E licences only:

- Slaughter volume is limited to a total of 10 animal units per year.
- Licences are valid for five years or less as specified on the licence.
- Meat products may only be sold directly to consumers by the licence holder from the rural slaughter establishment or a temporary food market; retail sales to secondary food establishments are prohibited.
- Animals slaughtered under the licence must be owned by the licence holder and raised at the licensed rural slaughter establishment.
- All meat and meat products originating from a Class E establishment must be labeled as follows:
"Class E – Not government inspected – Not for resale. For sale and use only in the regional district of <insert name of regional district in which your farm is located>"

Disclaimer and Signature

I have read and understood the licence terms and conditions described above. I certify that the information I have provided above is accurate and complete.

I understand that violating the licence terms and conditions, or providing false or misleading information in my application, may result in enforcement action and/or the removal of my licence.

Signature of licence applicant(s): _____

Date: _____