



Canadian Food
Inspection Agency

Agence canadienne
d'inspection des aliments

Canadian Food Inspection Agency



Our vision:

To excel as a science-based regulator, trusted and respected by Canadians and the international community.

Our mission:

Dedicated to safeguarding food, animals and plants, which enhances the health and well-being of Canada's people, environment and economy.

Containment Standards for Facilities Handling Aquatic Animal Pathogens

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Outline

- Overview of the Canadian Food Inspection Agency's (CFIA) Office of Biohazard Containment & Safety.
- *Containment Standard for Facilities Handling Aquatic Animal Pathogens:*
 - Background information
 - Overview
- Importing Aquatic Pathogens and Certification of Aquatic Containment Facilities.
- Contact Information.



Canadian Food Inspection Agency



Science and Business Integration



**OFFICE OF BIOHAZARD
CONTAINMENT AND SAFETY (OBCS)**

Biosafety

*Biocontainment
& Certification*

*Animal Pathogen
Importation*

*Standards and
Guidelines*

*Biosafety
Services*

Laboratory Safety

Laboratory Safety

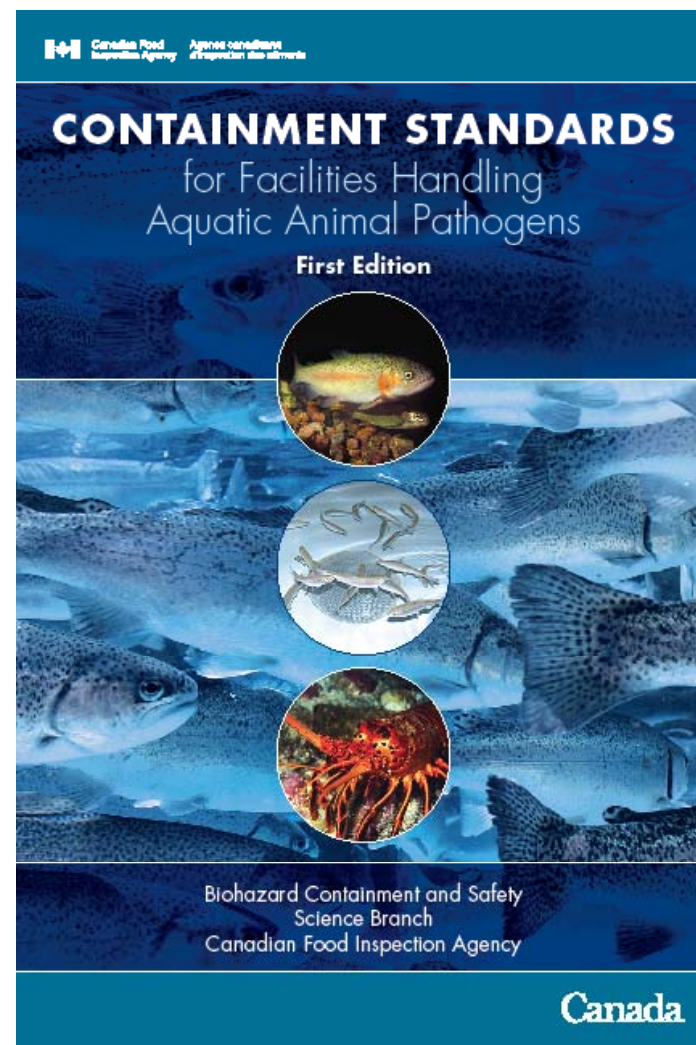
Radiation Safety

TDG



Background Information

- Development process initiated with Fisheries and Oceans Canada.
- CFIA's Aquatic Animal Health Division was established in 2005 as part of the National Aquatic Animal Health Program.
- *Health of Animals Act* give CFIA the legislative authority to govern the importation of animal pathogens.



Overview

- Applies to all facilities that import aquatic animal pathogens, aquatic animal by-products, or other organisms that may carry an aquatic animal pathogen.
- Outlines the minimum physical and operational requirements for the containment facilities above.
- Provides general guidance on design and operating requirements for any aquatic animal containment facility.



Overview (cont'd)

- Common principles from the Containment Standards for Veterinary Facilities (CSVF) and the PHAC Laboratory Biosafety Guidelines (LBG);
 - 3 Aquatic Containment levels (AQC1-AQC3);
 - AQC4 not explained as there aren't any aquatic pathogens that fit this criteria;
 - Aquatic pathogens are categorized in Risk Groups.
- Some differences between terrestrial animal pathogen containment and aquatic animal pathogen containment
 - i.e., redundant effluent treatment for AQC2 *in vivo*.



Aquatic Containment Level 1

- Corresponds to a well run laboratory or aquatic animal holding facility.
- Pathogens used can be found in the aquatic environment and are not a risk to aquatic animals or environment.
- Follows basic biosafety and biosecurity protocols
 - i.e., use of lab coats, hand washing stations, standard biohazard waste sites and disposal, good micro technique, decontamination procedures, SOPs etc.).
- Certification/verification is not required.

Aquatic Containment Level 2 *in vitro*

- Similar to animal containment level 2 facility.
- Containment achieved through:
 - facility design (i.e., chemical and heat resistant surfaces etc);
 - operational procedures (i.e., training in biosafety and containment precautions, limited access to authorized personnel, use of BSCs etc.); and
 - specialized equipment (i.e., autoclave).
- Self certification checklist is required.

Aquatic Containment Level 2 *in vivo*

- Some key additional requirements above AQC2 *in vitro*:
 - Redundant effluent treatment system;
 - Dedicated area or room dedicated to necropsies;
 - Anteroom; and
 - All live animal holding requirements (i.e., foot baths, dedicated euthanasia equipment, tank covers, etc.).
- Certification is required.

Aquatic Containment Level 3

- Containment achieved through:
 - highly specialized facilities;
 - stringent operational procedures; and
 - use of specialized equipment.
- Certification is required for both *in vitro* and *in vivo* facilities.

Aquatic Containment Level 3 (cont'd)

- Some key additional requirements:
 - Restricted access through controlled access system;
 - Dedicated anterooms with change areas;
 - Effluent treatment system with redundancy; and
 - Full clothing change before.
- Large scale work and production of aquatic animal pathogens may require enhancements.
- Additional requirements may be required for aquatic animal pathogens transmitted via the airborne route.



Status

- Standards have come into effect January 1, 2011.
- Aquatic Animal Health Division within CFIA provides guidance on aquatic pathogens and confirms appropriate containment levels.
- OBCS provide guidance for the importation and certification.
- Veterinary Biologics Section within CFIA involved in large scale production facilities.

Contact Information

Office of Biohazard Containment & Safety

<http://www.inspection.gc.ca/english/sci/bio/bioe.shtml>

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