LABORATORY ANIMAL FACILITIES

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These frequently asked questions (FAQs) are intended to assist investigators, instructors, and members of animal care committees in the implementation of the *CCAC guidelines: Laboratory animal facilities*. FAQs provide general responses to comments and questions received by the Canadian Council on Animal Care (CCAC) during the external reviews of this guidelines document.

If you do not find the answer to your question here, do not hesitate to contact the CCAC and we will be pleased to provide assistance.

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1. What are the major changes from the 2003 guidelines document?

Format Changes

Reduced redundancy – The General Guidelines (A-I), Section C.1, "Functional Imperatives of the Overall Facility", and Section C.4, "Functional Adjacencies", of the 2003 guidelines document were integrated into the relevant subsections of Section 5, "Components of a Laboratory Animal Facility", in the new guidelines document.

Improved access to specific topics – In the 2003 document, Section C, "The Characteristics of a Laboratory Animal Facility", had 13 sections with multiple subsections and took up 80 pages of the document. It included rooms for animals, procedures, personnel and more, functional adjacencies, materials and finishes, plumbing, electrical, and environmental monitoring, among others. The revised version is divided into 6 major sections to make it easier to find information.

Content Changes

Emphasized animal welfare – Animal welfare has been given more attention in the revised version.

Moved away from single housing – Appendix B of the 2003 version listed several scenarios where animals were singly housed, which does not reflect the current emphasis on social housing in the husbandry guidelines and recently published types of animal guidelines. As a result, this appendix was deleted.

Aligned traffic flow with current practices – In many institutions, traffic flow in relation to the concept of clean versus dirty is less applicable, as many facilities rely on containment and engineering controls more than traffic flow. Therefore, the concepts of clean and dirty animals, functions, etc. and traffic flow patterns were removed, except in relation to cage washing.

Incorporated the air quality guidelines – With the publication of *Heating, ventilation, and air conditioning: Addendum to the CCAC guidelines on laboratory animal facilities – characteristics, design and development* in 2019, conditions were put in place for institutions that chose to deviate from the 15-20 air changes per hour specified in the 2003 facility guidelines. The requirement for 15-20 air changes per hour remain where institutions do not meet the conditions described. In this revised version of the facilities guidelines document, the separate addendum on air quality has been integrated into the facilities document to make it easier for users to access, and no changes have been made to the requirements.

Changed guidance on sound and vibration – The 2003 document mentions locating animals that are sensitive to sound as far away as possible from noise-generating equipment or noisy animals. However, the guidelines do not note that animals are very sensitive to vibration, which can be more disruptive than sound. The section on sound has been expanded to include vibration and emphasize the need for sound and vibration attenuation within rooms housing animals.

The suggestion in the 2003 guidelines document to use a sound system to mask noises generated within the facility is not supported and has been deleted in the revised facility guidelines document.

Reworded operational requirements to focus on design – The 2003 version contained several operational statements that had no impact on the design of animal facilities. These statements were either reworded as requirements or considerations for facility design or removed.

Emphasized the importance of commissioning – To prevent animal welfare problems associated with a lack of proper commissioning of newly constructed or renovated facilities, the section on commissioning was revised and now includes a specific guidelines statement, to draw more attention to commissioning requirements.

Clarified requirements and updated information – The document was reviewed to clarify loosely worded requirements, update information in line with changes in equipment, and ensure statements are supported by evidence.

2. How are "must" and "should" to be interpreted in the building or renovation of laboratory animal facilities?

As with all CCAC guidelines, the following definitions of "must" and "should" apply:

> The term 'must' is used for mandatory requirements. The term 'should' is used to indicate an obligation, for which any exceptions must be justified to, and approved by, an animal care committee.

It is recognized that there are different types and scales of laboratory animal facilities; however, Guideline 1 requires that: "Facilities for animals used in scientific activities must be conducive to the welfare and safety of the animals, facilitate optimal animal care practice, provide an appropriately appointed and safe workplace for personnel, and, in the case of research and testing, establish a stable environment that will contribute to the reproducibility of studies."

3. What is the relationship between these guidelines and other biosafety standards?

Aspects of biosafety are addressed throughout the *CCAC guidelines: Laboratory animal facilities* in terms of barrier systems for minimizing cross-contamination. Additional requirements for biosafety are set out in the *Canadian Biosafety Standard* (Government of Canada, 2022) and the *Canadian Biosafety Handbook* (Government of Canada, 2016 or most recent). As noted in the Introduction, where conflicts arise between CCAC guidelines and federal, provincial or territorial, or local regulations, codes, or standards, those regulations, codes, or standards take precedence.