

Application of Performance Standards

The concept of Performance Standards is explicitly highlighted in the *Guide for the Care and Use of Laboratory Animals (Guide)*, Eighth Edition (National Research Council 2011). According to the *Guide*, the concept and application of Performance Standards is essential for the development of a comprehensive animal care and use program.

Regulations often include specific requirements on animal care and use program areas. When these requirements are rigid and measurable, they are called Engineering Standards. Typical examples of Engineering Standards are minimum animal primary enclosure sizes; ranges for environmental temperature, relative humidity, light intensity levels, and air exchange rates of animal rooms; lists of accepted or regulated procedures; minimum sanitation frequency of animal cages and accessories; and minimum temperature requirements for the rack washer rinse water. Engineering Standards do not provide for interpretation or any modification of the expected specific limits, parameters, or methods to achieve a particular outcome. Additionally, Engineering Standards may not exist for all species in the program.

Alternatively, Performance Standards define the outcome of activities or procedures in detail and provide criteria for assessing whether the outcome is achieved. These criteria may be based on simple measurable acceptable data (e.g., microbiological growth data after sanitation practices), or on more general interpretation of the outcome of a process (e.g., analysis of the questions raised on the oversight and ethical review processes).

AAALAC endorses the performance-based approach to animal care and use. This approach emphasizes outcomes—animal well-being, scientific validity, and regulatory compliance—over strict adherence to procedures. Institutions may deviate from Primary or other AAALAC standards or recommendations when:

- There is a process to evaluate the effectiveness of the procedure (measure the outcome).
- They provide strong scientific or veterinary rationale.
- The deviation maintains or enhances animal welfare.
- The alternative method is reviewed and approved by the Institutional Animal Care and Use Committee or equivalent oversight body (OB).

This allows institutions to adopt innovative or tailored practices that suit their specific research, species, or facility conditions.