# **Laws and Regulations Quiz**

# 2009 C.L. Davis, DVM Foundation Topics in Laboratory Animal Medicine

May 8, 2009

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## Disclaimer

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All information is deemed reliable and correct No warranty for accuracy

No information presented is known to be specifically included in the ACLAM Board examinations

## Outline

**ACLAM Role Delineation Document** 

**Possible References** 

Quiz Bowl Q&A

**Future Regulations, Laws, Policies to Monitor** 

## **ACLAM Certification Overview**

- Taken from the website: aclam.org
- •Certification- Overview-Examine ACLAM's Role Delineation Document (RDD).
  - Best describes the proficiency required by an ACLAM Diplomate
  - Certification examination will now closely mirror the tasks and species in this document.
  - Broken into 10 Tasks

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Task 7 – Provide Consultation Governing Appropriate Care & Use of Laboratory Animals (Weight 10 % ± 2%)

K1. Laws, regulations, and standards including (but not limited to):

## Task 7 – Continued

- a) Animal Welfare Act/USDA regulations and policies
- b) Public Health Service Policy on Humane Care and Use of Animals
- Guide for the Care and Use of Laboratory Animals (ILAR/NRC) and other related ILAR publications
- d) Report of the AVMA Panel on Euthanasia
- e) Biosafety in Microbiological and Biomedical Laboratories (CDC/NIH)
- f) Good Laboratory Practices (FDA/EPA) and Good Manufacturing Practices (FDA)
- g) Endangered Species Act/CITES
- h) Standardized Genetic Nomenclature of Inbred Strains of Mice (ICLA)
- i) Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching (FASS)
- j) Live Animals Regulations (IATA International Air Transportation Association)
- k) USDA and CDC animal importation regulations
- Recombinant DNA Guidelines
- m) Controlled Substances Act/DEA Regulations
- n) ARENA Guidebook

Note: This list is not all-inclusive. A laboratory animal medicine specialist should also be aware of any other applicable laws, regulations and standards, including those of local importance.

Task 7 – Provide Consultation Governing Appropriate Care & Use of Laboratory Animals (Weight 10 % ± 2%)

**K2.** Role and Function of the IACUC

K3. Role and Function of AAALAC International

Task 5 – Execute IACUC Veterinary Responsibilities (Weight 12 % ± 2%)

K1. Laws, regulations, and standards pertinent to animal care and use

Task 6 – Design and Operate Laboratory Animal Facilities (Weight 10 % ± 2%)

K1. Regulations and standards.

Task 4 – Develop and Manage Animal Husbandry Programs (Weight 12 % ± 2%)

K1. Occupational health and safety.

K10. Laws, regulations, and standards pertaining to animal husbandry, housing, transportation and documentation

Task 8 – Educate Scientific, Animal Care, and Ancillary Staff (Weight 5 % ± 1%)

K1. Laws, regulations, and standards as they relate to requirements for properly trained individuals

## LABSG-http://www.labsg.org/



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The Laboratory Animal Study Group (LABSG) is a LISTERV journal group that is owned by Angela King-Herbert and moderated by Stephanie Murphy. The members include veterinary students, laboratory animal residents and post-doc students, and "ACLAM-boarded" laboratory animal veterinarians. These individuals are assigned journal articles from current laboratory animal journals. They create summaries and sample questions and answers that are posted to the list. The information on this website would not be available if it was not for the hard work of all of the members.

If you are not a member and would like to download some of these files, please feel free. However, we do ask that you consider joining the group and contributing to future summaries. Even if you are not preparing for boards, it is a good way to stay current on the literature! And, if you are preparing for boards, remember that there are cosmic forces out there that may not take kindly to taking advantage of the hard work of others. Don't let bad karma affect your test!!!

This web page also has quizzes, slide sets, and audio files that can help with your learning. You can access these by using the "Resources" button.

But, one serious note. What you will not find on this web page and LISTSERV are actual exam questions from the ACLAM, ECLAM or other laboratory animal science and medicine certifying examinations. LABSG supports the examination security of all of the certifying organizations. To that end, we do not allow the posting of actual examination information via the listsery or the web site. Individuals who post actual certifying examination information will be referred to certifying organization for investigation.

LABSG Homepage → Study Center → Resources

Regulatory Documents

Code of Federal Regulations



## Laboratory Animal Boards Study Group

Helping professionals prepare for certification in laboratory animal medicine and science.

Home	Study Questions from Regulatory Documents	
Study Center		
Audio Files	There is no guarantee that the mock exams posted here will accurately reflect the actual ACLAM, ECLAM or other laboratory animal medicine and science certifying exams in terms of content or format. These mock exams are meant to §e a learning experience and a resource in preparing for	
Curriculum		
Journals	ACLAM, ECLAM or other laboratory animal medicine and science certifying exams.	
Mock Exams	APHIS, USDA. Animal care policy manual (policies #1-29).	
Resources	- Ar i i io, OSDA. Ariinal care policy mandai (policies #1-29).	
Other Links	Applied Research Ethics National Association (ARENA) and Office of Laboratory Animal Welfare (OLAW). 2002. Institutional animal care and use committee	
Study Tips	guidebook. 2nd Edition. OLAW, Bethesda, MD.	

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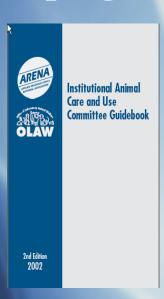
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LABORATORY ANIMAL MEDICINE 2<sup>nd</sup> edition American College of Laboratory Animal Medicine of Fifthed Material

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## http://grants.nih.gov/grants/olaw/guidebook.pdf



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### A.2. Table A. Comparison of IACUC Membership Requirements

PHS Policy PHS Policy IV.A. 3. a., b.

Appointed by the CEO Minimum of five members:

USDA Regulations Appointed by the CEO Minimum of three members:

One Doctor of Veterinary Medicine with training or experience in laboratory animal science and medicine who has direct or delegated program authority and respon sibility for activities involving animals at

One practicing scientist experienced in research involving animals.

One member whose primary concerns are in a nonscientific area (for example, ethicist, lawyer, clergy).

One member not affiliated in any way with the institution and not a member of the immediate family of a person who is affiliated with the institution.

The PHS Policy requires institutions to follow the Guide, which states that committee membership should include at least one public member to represent general community interests in proper care and use of animals, and that public members should not be laboratory animal users.

At least one Doctor of Veterinary Medicine with training or experience in laboratory animal science and medicine, and who has direct or delegated program respon sibility for activities involving animals at

One member not affiliated in any way with the institution and not a member of the immediate family of a person who is affiliated with the institution; person who represents the general community interests in the proper care and treatment of animals; and is not a laboratory animal user (USDA Policy # 15)

Not more than three members from the same administrative unit of the institution.

## C.1. Table A. Regulatory Criteria Applicable to Protocol Review as

Defined in PHS Policy and USDA Regulations				
U.S. Government Principles Note: Citations at the end of each Principle refer to other Sections of this Guidebook.	PHS Policy on Humane Care and Use of Laboratory Animals	USDA AWR 9 CFR Part 2, Subpart C		
Principle I: The transportation, care and use of animals should be in accordance with the AWA (7 U.S.C.2131 et. seq.) and other applicable federal laws, guidelines, and policies". "For guidence throughout these Principles, the reader is referred to the Guide.	C.1.:the IACUC shelldetermine that the proposed research projects are in accordance with this Policythe IACUC shall confirm that the research project will be conducted in accordance with the AWA innofer as it applies to the research project, and that the research project is consistent with the Guide unless acceptable justification for a departure is presented.	§2.31(d):The IACUC shall determine that the proposed activities are in accordance with this subchapter unless acceptable; justification for a departure is presented in writing		
Principle II: Procedures involving animals should be designed and performed with due consider- ation of their scientific relevance to human or animal health, the advancement of knowledge, or the good of society.		§2.31(d)(1)(iii): The PI has provided written Assurance that the activities do not unnecessarily duplicate previous experiments.		
Principle III: The animals selected for a procedure should be of an appropriate species and quality and the minimum number required to obtain valid results. Methods such as mathematical models, computer simulation, and in vitro biological systems should be considered.	D.1.: Applications and proposalsthat involve the care and use of animals shall contain the following: a.) Identification of the species and the approximate number of animals to be used; b.) rationals for involving animals, and for the appropriateness of the species and numbers of spinals to be the section.	§2.31(e): A proposalmuet contain the following: (1) Identification of the species and approximate number of animals to be used; (2) A rationale for involving animals, and for the appropriateness of the species and numbers of animals to be used		

of animals to be used...

## Camp ACLAM

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# Q & A's

Under the Good Laboratory Practices Regulations (Food and Drug Administration, 1978) an institution seeking FDA approval of a product which of the following is false?

- a. Each institution must have written protocols and standard operating procedures
- b. Each institution must provide adequate facilities, equipment and animal care
- c. Each institution must properly identify a test substance
- d. Each institution must annually submit to FDA a copy of the IACUC's semiannual program reviews.

**Under the Good Laboratory Practices Regulations (Food and Drug Administration, 1978) which of the following is false?** 

- a. Each institution must have written protocols and standard operating procedures
- b. Each institution must provide adequate facilities, equipment and animal care
- c. Each institution must properly identify a test substance
- d. Each institution must annually submit to FDA a copy of the IACUC's semiannual program reviews.

Answer: d.

Reference: Laboratory Animal Medicine (LAM). Fox, J.G., et al. pg 26-27.

The Convention on International Trade in Endangered Species (CITES) and the Endangered Species Act is enforced by which agency?

- a. U.S. Fish and Wildlife Service
- **b.** U.S Center for Disease Control and Prevention
- c. USDA
- d. U.S. Department of Endangered Species

The Convention on International Trade in Endangered Species (CITES) and the Endangered Species Act is enforced by which agency?

- a. U.S. Fish and Wildlife Service
- b. U.S Center for Disease Control and Prevention
- c. USDA
- d. U.S. Department of Endangered Species

Answer a.

Reference: LAM pg.30

Regarding Biosafety Level-3, when etiologic agents are in use, the biohazard sign at the lab entrance does not need to include?

- a. Special requirements for entering the laboratory such as personal protective equipment requirements, immunizations, etc.
- b. Contact information of laboratory directors and responsible personnel
- c. Veterinary emergency contact info
- d. Identification of the agent

Regarding Biosafety Level-2, when etiologic agents are in use, the hazard warning sign at the lab entrance does not need to include?

- a. Special requirements for entering the laboratory such as personal protective equipment requirements, immunizations, etc.
- b. Contact information of laboratory directors and responsible personnel
- c. Veterinary emergency contact info
- d. Identification of the agent

Answer: c.

Reference: BioSafety in Microbiological & Biomedical Laboratories (BMBL) 4th edition, pg 29

# According to the PHS Policy, which of the following is NOT listed as a necessary member of the IACUC?

- a. A doctor of veterinary medicine
- b. A practicing scientist
- c. A nonaffiliated member
- d. A nonscientific member
- e. A committee chair

# **According to PHS Policy, which of the following is NOT listed as a necessary member of the IACUC?**

- a. A doctor of veterinary medicine
- b. A practicing scientist
- c. A nonaffiliated member
- d. A nonscientific member
- e. A committee chair

Answer: e.

Reference: OLAW Institutional Animal Care and Use Committee Guidebook, pg. 14

According to the A.W.A, primary enclosures used to transport nonhuman primates must be clearly marked in English with the words \_\_\_\_\_\_ in letters at least 1" high.

- a. Do not touch or Keep hands away
- b. Live animals or Wild animals
- c. Frugivore, feed accordingly
- d. Danger, Nonhuman primates

According to the A.W.A, primary enclosures used to transport nonhuman primates must be clearly marked in English with the words \_\_\_\_\_\_ in letters at least 1" high.

- a. Danger, Nonhuman primates
- b. Do not touch or Keep hands away
- c. Live animals or Wild animals
- d. Frugivore, feed accordingly

Answer: c

Reference: Animal Welfare Act (AWA) 3.87, f.

## An official USDA tag must have all the following except:

- a. identification number
- b. animal's date of birth
- c. numbers and letters identifying the state and dealer
- d. the letters "USDA"

## An official USDA tag must have all the following except:

- a. identification number
- b. animal's date of birth
- c. numbers and letters identifying the state and dealer
- d. the letters "USDA"

Answer: b.

Reference: AWA 2.51,b.

Research facilities that obtain dogs or cats from sources other than dealers, exhibitors, and persons who are exempt from licensing regulations must hold the animals for \_\_\_\_ full days before using them in a research project, not including the day of acquisitions or time in transit.

- a. 3
- b. 10
- c. 7
- d. 5

Research facilities that obtain dogs or cats from sources other than dealers, exhibitors, and persons who are exempt from licensing regulations must hold the animals for \_\_\_\_ full days before using them in a research project, not including the day of acquisitions or time in transit.

- a. 3
- b. 10
- c. 7
- d. 5

Answer: d.

Reference: AWA 2.38,j.

The National Fire Protection Association has classified fires into four types. A Class B fire could be caused by which of the following groups of materials except?

- a. Lab equipment, lighting systems
- b. Bedding, paper gowns
- c. Combustible metals
- d. Flammable solvents

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- b. Bedding, paper gowns
- c. Combustible metals
- d. Flammable solvents

Answer: C. Class D Fire

Reference: Occupational Health and Safety in the Care and Use of Research Animals. 1997. pg 35.

Research facilities must have a mechanism in place for ensuring that animals are reported in the appropriate pain category on the annual report (APHIS Form 7023). In what column should animals experiencing pain or distress, which is alleviated with anesthetics, analgesics, sedatives, and/or tranquilizers reported in?

- a. Column D
- b. Column C
- c. Column B
- d. Column E

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- a. Column D
- b. Column C
- c. Column B
- d. Column E

Answer: a.

Reference: Animal Care Policy #11-Painful/Distressful Procedures-April 14, 1997

#### Which class of lasers can present a fire hazard?

- a. Class I
- b. Class II
- c. Class IIIa
- d. Class IIIb
- e. Class IV

#### Which class of lasers can present a fire hazard?

- a. Class I
- b. Class II
- c. Class IIIa
- d. Class IIIb
- e. Class IV

#### Answer: e.

Reference: Occ. Health and Safety in the Care and Use of Res. Animals. 197. pg 38.

**During surface transportation, inside primary conveyance, what ambient temperature range must be kept at all times?** 

- a. 35-75° F
- b. 45-85° F
- c. 40-70° F
- d. 50-90° F

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- a. 35-75° F
- b. 45-85° F
- c. 40-70° F
- d. 50-90° F

Answer: b.

Reference: AWA 3.88,e.

Which document defines an animal as "any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes"?

- a. Public Health Service Policy
- b. Animal Welfare Act
- c. The Guide for the Care and Use of Laboratory
  Animals
- d. The Health Research Extension Act

Which document defines an animal as "any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes"?

- a. Public Health Service Policy
- **b.** Animal Welfare Act
- c. The Guide for the Care and Use of Laboratory
  Animals
- d. The Health Research Extension Act

Answer: a.

Reference: PHS Policy on Humane Care and Use of Laboratory Animals III. A. 1996.

According to the 2000 AVMA Panel on Euthanasia, manual cervical dislocation is a humane technique for small birds that weigh \_\_\_\_\_?

- a. There is no weight limit for this technique in small birds
- **b.** <400grams
- **c.** <300grams
- d. <200grams

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- a. There is no weight limit for this technique in small birds
- **b.** <400grams
- **c.** <300grams
- d. <200grams

Answer: d.

Reference: 2000 AVMA Panel on Euthanasia. pg. 682

When conducting studies with laboratory rodents experimentally infected with *Bacillus anthracis*, what level of biosafety is recommended for personnel protection?

- a. BSL 1
- b. BSL 2
- c. BSL 3
- d. BSL 4

When conducting studies with laboratory rodents experimentally infected with *Bacillus anthracis*, what level of biosafety is recommended for personnel protection?

- a. BSL 1
- b. BSL 2
- c. BSL 3
- d. BSL 4

Answer: b.

Reference: BMBL, Section VII-A-Bacterial Agents, pg 88.

What is the correct order of preference for euthanasia of small animals (<7kg) with inhalant anesthetics?

- a. Desflurane-methoxyflurane-sevoflurane-isofluraneenflurane-halothane
- b. Sevoflurane-isoflurane-enflurane-halothanedesflurane-methoxyflurane
- c. Methoxyflurane-sevoflurane-isoflurane-enfluranehalothane-desflurane
- d. Halothane-enflurane-isoflurane-sevofluranemethoxyflurane-desflurane

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- b. Sevoflurane-isoflurane-enflurane-halothanedesflurane-methoxyflurane
- c. Methoxyflurane-sevoflurane-isoflurane-enflurane-halothane-desflurane
- d. Halothane-enflurane-isoflurane-sevofluranemethoxyflurane-desflurane

Answer: d.

Reference: 2000 AVMA Panel of Euthanasia pg. 676

#### In the Guide, laboratory animals are defined as:

- a. Any live or dead animal used in research, teaching, or testing
- b. Any live or dead dog, cat or NHP, GP, hamster or rabbit or any other warm blooded animal used for research teaching, testing, experimentation or exhibition.
- c. Any vertebrate animal used in research, teaching or testing.
- d. Any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes.

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- c. Any vertebrate animal used in research, teaching or testing.
- d. Any live vertebrate animal used or intended for use in research, research training, experimentation or biological testing or for related purposes.

Answer: c.

Reference: The Guide, Introduction, pg. 1

During transportation, how often should a 5 year old nonhuman primate be offered food and water?

- a. Food once every 8 hr; water once every 8 hr
- b. Food once every 12 hr; water once every 12 hr
- c. Food once every 24 hr; water once every 12 hr
- d. Food ad lib; water by bottle continuously

During transportation, how often should a 5 year old nonhuman primate be offered food and water?

- a. Food once every 8 hr; water once every 8 hr
- b. Food once every 12 hr; water once every 12 hr
- c. Food once every 24 hr; water once every 12 hr
- d. Food ad lib; water by bottle continuously

Answer: c.

Reference: AWA 3.89, a.

If dogs are exempt from the exercise program due to their health, condition, or well-being, and the basis for the exemption is not permanent, how often must the attending veterinarian review the need for the exemption?

- a. Annually
- b. Every 30 days
- c. Every 60 days
- d. Every 90 days

If dogs are exempt from the exercise program due to their health, condition, or well-being, and the basis for the exemption is not permanent, how often must the attending veterinarian review the need for the exemption?

- a. Annually
- b. Every 30 days
- c. Every 60 days
- d. Every 90 days

Answer: b.

Reference: AWA 3.8, a.

According to the *Guide*, which of the following would not adequately justify multiple major survival surgeries?

- a. To conserve scarce animal resources
- b. Scientifically justified and approved by the IACUC
- c. To save time for research group and also reduce financial outlay
- d. If additional surgeries are needed for clinical reasons

According to the *Guide*, which of the following would not adequately justify multiple major survival surgeries?

- a. To conserve scarce animal resources
- b. Scientifically justified and approved by the IACUC
- c. To save time for research group and also reduce financial outlay
- d. If additional surgeries are needed for clinical reasons

Answer: c.

Reference: The Guide, Multiple Major Surgical Procedures, pg12.

According to PHS Policy regarding institutional status, what is the difference between Category 1 and Category 2 institutions?

- a. AAALAC accreditation
- b. Size of the institution
- c. Presence of non-human primates at the institution
- d. Attending veterinarian is an ACLAM Diplomate

According to PHS Policy regarding institutional status, what is the difference between Category 1 and Category 2 institutions?

- a. AAALAC accreditation
- b. Size of the institution
- c. Presence of non-human primates at the institution
- d. Attending veterinarian is an ACLAM Diplomate

Answer: a.

Reference: PHS Policy section IV.A.2.

According to the *Guide*, storage areas for dead animals and animal-tissue waste should be kept below what temperature?

- a. 0°C (32° F)
- b. 4° C (39.2° F)
- c. 7° C (44.6° F)
- d. 10° C (50°F)

According to the *Guide*, storage areas for dead animals and animal-tissue waste should be kept below what temperature?

- a. 0°C (32° F)
- b. 4° C (39.2° F)
- c. 7° C (44.6° F)
- d. 10° C (50°F)

Answer: c.

Reference: The Guide, pg 77.

Urine is a major source of allergens from which of the following species?

- a. Mouse, rat, ferret
- b. Mouse, rabbit, guinea pig
- c. Mouse, rat, reptile
- d. Mouse, dog, cat

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- a. Mouse, rat, ferret
- b. Mouse, rabbit, guinea pig
- c. Mouse, rat, reptile
- d. Mouse, dog, cat

Answer: b.

Reference: Occupational Health and Safety in the Care and Use of Research Animals. 1997. pg 54-59.

Which of the following correctly represents the meaning of the acronym HEPA?

- a. Highly Energized Partitions in Air
- b. Horizontal Escalating Particulate Air
- c. High Efficiency Particulate Air
- d. High Efficiency Partitioned Air

Which of the following correctly represents the meaning of the acronym HEPA?

- a. Highly Energized Partitions in Air
- b. Horizontal Escalating Particulate Air
- c. High Efficiency Particulate Air
- d. High Efficiency Partitioned Air

Answer: c.

Reference: LAM 2nd edition, pg 919.

#### The official definition of a HEPA filter is a filter that:

- a. Filters out 99.00% of all particles ≥ 0.3um
- **b.** Filters out 97.00% of all particles  $\geq 0.3$ um
- c. Filters out 99.97% of all particles ≥0.5um
- d. Filters out 99.97% of all particles ≥0.3um

#### The official definition of a HEPA filter is a filter that:

- a. Filters out 99.00% of all particles ≥ 0.3um
- b. Filters out 97.00% of all particles ≥ 0.3um
- c. Filters out 99.97% of all particles ≥0.5um
- d. Filters out 99.97% of all particles ≥0.3um

Answer: d.

Reference: LAM 2nd edition, pg 919.

When conducting studies utilizing nonhuman primates and guinea pigs experimentally or naturally infected with Mycobacterium tuberculosis, what level of biosafety is recommended for personnel protection? (Select the single best answer)

- a. BSL 3 for NHP's; BSL 3 for guinea pigs
- b. BSL 3 for NHP's; BSL 2 for guinea pigs
- c. BSL 2 for NHP's; BSL 2 for guinea pigs
- d. BSL 2 for NHP's' BSL 3 for guinea pigs

When conducting studies utilizing nonhuman primates and guinea pigs experimentally or naturally infected with Mycobacterium tuberculosis, what level of biosafety is recommended for personnel protection? (Select the single best answer)

- a. BSL 3 for NHP's; BSL 3 for guinea pigs
- b. BSL 3 for NHP's; BSL 2 for guinea pigs
- c. BSL 2 for NHP's; BSL 2 for guinea pigs
- d. BSL 2 for NHP's' BSL 3 for guinea pigs

Answer: b.

Reference: BMBL; Agent Summary- Bacteria. pg 106.

Who is responsible for insuring that personnel performing surgical procedures on animals are appropriately qualified and trained?

- a. Institutional Animal Care and Use Committee
- b. Individual performing the surgical procedure
- c. Attending veterinarian
- d. Principal investigator

Who is responsible for insuring that personnel performing surgical procedures on animals are appropriately qualified and trained?

- a. Institutional Animal Care and Use Committee
- b. Individual performing the surgical procedure
- c. Attending veterinarian
- d. Principal investigator

Answer: a.

Reference: The Guide, pg.61.

According to the *Guide*, at least how often should the IACUC meet?

- a. Monthly
- b. Quarterly
- c. Every 6 months
- d. Every 12 months

According to the *Guide*, at least how often should the IACUC meet?

- a. Monthly
- b. Quarterly
- c. Every 6 months
- d. Every 12 months

Answer: c.

Reference: The Guide, pg. 9

Which entity is responsible for requesting, negotiating, approving, disapproving, restricting, or withdrawing approval of Public Health Service Assurance?

- a. USDA
- b. Department of Health and Human Services
- c. OLAW
- d. APHIS

Which entity is responsible for requesting, negotiating, approving, disapproving, restricting, or withdrawing approval of Public Health Service Assurance?

- a. USDA
- b. Department of Health and Human Services
- c. OLAW
- d. APHIS

Answer: c.

Reference: PHS Policy IV. A.

**According to PHS Policy, who makes appointments to the IACUC?** 

- a. Attending veterinarian
- b. Institutional official
- c. Chief Executive Officer
- d. IACUC Chairperson

# **According to PHS Policy, who makes appointments to the IACUC?**

- a. Attending veterinarian
- b. Institutional official
- c. Chief Executive Officer
- d. IACUC Chairperson

Answer: c.

Reference, PHS Policy IV.A.3.a

In the United States, which of the following is responsible for enforcing the Lacey Act?

- a. Department of the Interior, U.S. Fish and Wildlife Service
- b. Department of Health and Human Services
- c. The Environmental Protection Agency
- d. Department of Agriculture, APHIS

In the United States, which of the following is responsible for enforcing the Lacey Act?

- a. Department of the Interior, U.S. Fish and Wildlife Service
- b. Department of Health and Human Services
- c. The Environmental Protection Agency
- d. Department of Agriculture, APHIS

Answer: a.

Reference: LAM 2nd edition, pg. 30.

In accordance with the Animal Welfare Act, at what interval must research facilities, intermediate handlers, and common carriers of regulated species register with the USDA?

- a. Every year
- b. Every 2 years
- c. Every 3 years
- d. Every 4 years

In accordance with the Animal Welfare Act, at what interval must research facilities, intermediate handlers, and common carriers of regulated species register with the USDA?

- a. Every year
- b. Every 2 years
- c. Every 3 years
- d. Every 4 years

Answer: c.

Reference: LAM 2nd edition, pg. 21.

**How often must importers of nonhuman primates register with the CDC?** 

- a. Every year
- b. Every 2 years
- c. Every 3 years
- d. Every 4 years

**How often must importers of nonhuman primates register with the CDC?** 

- a. Every year
- b. Every 2 years
- c. Every 3 years
- d. Every 4 years

Answer: b.

Reference: LAM 2nd edition, pg 30.

The Animal Welfare Act authorizes the USDA to develop regulations based on the act. The USDA is required to publish any new regulations or changes in existing regulations in the Federal Register. The public is allowed a specific time period during which to comment. What is the allowed time period?

- a. 30 days
- **b.** 60 days
- c. 90 days
- d. 120 days

The Animal Welfare Act authorizes the USDA to develop regulations based on the act. The USDA is required to publish any new regulations or changes in existing regulations in the Federal Register. The public is allowed a specific time period during which to comment. What is the allowed time period?

- a. 30 days
- **b.** 60 days
- c. 90 days
- d. 120 days

Answer: b.

Reference: LAM 2nd edition, pg 21.

Dogs and cats acquired by a dealer or exhibitor from a contract animal pound or shelter must be held for at least how many days?

- a. 10 days
- b. 7 days
- c. 5 days
- d. 3 days

Dogs and cats acquired by a dealer or exhibitor from a contract animal pound or shelter must be held for at least how many days?

- a. 10 days
- b. 7 days
- c. 5 days
- d. 3 days

Answer: a.

Reference: LAM 2nd edition, pg 21.

Which of the following is NOT true regarding use of tricaine methane sulfonate (MS 222) when used for euthanasia?

- a. A concentration of ≥250 mg/L is recommended and fish should be left in solution for at least 10 minutes
- b. There is a 21-day withdrawal time for MS 222
- c. MS 222 solutions can be highly basic and should be buffered HCl before use with animals
- d. MS 222 is appropriate for euthanasia of amphibians as well as fish species.

Which of the following is NOT true regarding use of tricaine methane sulfonate (MS 222) when used for euthanasia?

- a. A concentration of ≥250 mg/L is recommended and fish should be left in solution for at least 10 minutes
- b. There is a 21-day withdrawal time for MS 222
- c. MS 222 solutions can be highly basic and should be buffered HCl before use with animals
- d. MS 222 is appropriate for euthanasia of amphibians as well as fish species.

Answer: c.

Reference: 2000 AVMA Panel of Euthanasia. pg 680

When working with Mycobacterium tuberculosis, liquification and concentration of sputa for acid-fast staining may be conducted safely on the open bench \_\_\_\_\_ (pick the best answer that makes this a TRUE statement).

- a. By first treating the specimen in a Class I or II safety hood with an equal volume of 5% sodium hypochlorite solution (household bleach) and waiting 15 minutes
- b. Refrigeration prior to use at <4° C
- c. Without any prior treatment or precautions
- d. When flame drying slides only

When working with Mycobacterium tuberculosis, liquification and concentration of sputa for acid-fast staining may be conducted safely on the open bench \_\_\_\_\_ (pick the best answer that makes this a TRUE statement).

- a. By first treating the specimen in a Class I or II safety hood with an equal volume of 5% sodium hypochlorite solution (household bleach) and waiting 15 minutes
- b. Refrigeration prior to use at <4° C
- c. Without any prior treatment or precautions
- d. When flame drying slides only

Answer: a.

Reference: BMBL, Agent Summary Statements, Bacteria. pg 105

UV-B or UV-C radiation should not be used in the presence of chlorinated solvents because of the possibility of producing what potent lung irritant?

- a. Ammonia
- b. Trichloroethanol
- c. Chlorofluorcarbons
- d. Phosgene

UV-B or UV-C radiation should not be used in the presence of chlorinated solvents because of the possibility of producing what potent lung irritant?

- a. Ammonia
- b. Trichloroethanol
- c. Chlorofluorcarbons
- d. Phosgene

Answer: d.

Reference: Occupational Health and Safety in the Care and Use of Research Animals, pg. 37.

According to the National Research Council, which individual should be responsible for overseeing and delegating responsibilities for the Occupational Health and Safety Program?

- a. A medical doctor
- b. A principal investigator
- c. Attending veterinarian
- d. The senior official of an institution

According to the National Research Council, which individual should be responsible for overseeing and delegating responsibilities for the Occupational Health and Safety Program?

- a. A medical doctor
- b. A principal investigator
- c. Attending veterinarian
- d. The senior official of an institution

Answer: d.

Reference: NRC. Occupational Health and Safety in the Care and Use of Research Animals, pg 8.

When transporting by surface vehicle, up to what age can litters of puppies or kittens of comparable size be transported together?

- a. 20 weeks
- b. 12 weeks
- c. 8 weeks
- d. 5 weeks

When transporting by surface vehicle, up to what age can litters of puppies or kittens of comparable size be transported together?

- a. 20 weeks
- b. 12 weeks
- c. 8 weeks
- d. 5 weeks

Answer: c.

Reference: AWA 3.14, g, 2.

The minimum height of a primary enclosure acquired after August 15, 1990, for guinea pigs in inches is?

- a. 10
- b. 9
- c. 8
- d. 7

The minimum height of a primary enclosure acquired after August 15, 1990, for guinea pigs in inches is?

- a. 10
- b. 9
- c. 8
- d. 7

Answer: d.

Reference: AWA, 3.28, c, 1,ii.

A 5 square foot primary enclosure would be appropriate for a, individual rabbit up to \_\_\_\_\_ pounds?

- a. 9
- b. 10
- c. 12
- d. 14

A 5 square foot primary enclosure would be appropriate for a, individual rabbit up to \_\_\_\_ pounds?

- a. 9
- b. 10
- c. 12
- d. 14

Answer: c.

Reference: AWA, 3.53, c, 2.

When more than one nonhuman primate is housed in a primary enclosure, the minimum space requirement for the enclosure is the \_\_\_\_\_?

- a. Sum of the minimum requirements for each individual
- b. Square of the minimum requirements for each individual
- c. Square of the minimum requirements for each individual multiplied by 0.9
- d. Sum of the minimum requirements for each individual multiplied by 0.9

When more than one nonhuman primate is housed in a primary enclosure, the minimum space requirement for the enclosure is the \_\_\_\_\_?

- a. Sum of the minimum requirements for each individual
- b. Square of the minimum requirements for each individual
- c. Square of the minimum requirements for each individual multiplied by 0.9
- d. Sum of the minimum requirements for each individual multiplied by 0.9

Answer: a.

Reference: AWA, 3.80, b.

Pens, runs, and outdoor housing areas with material that cannot be sanitized by steam under pressure or 180 degrees water and soap or thorough cleaning of organic material followed by clean water spray (i.e. gravel, sand, grass, etc.) (pick the best answer to make this statement true)

- a. Must be sanitized with 2% household bleach
- b. Are exempt from routine sanitation
- c. Must be sanitized by removal of contaminated material as necessary
- d. Must be sanitized by covering contaminated material with >2" of additional material

Pens, runs, and outdoor housing areas with material that cannot be sanitized by steam under pressure or 180 degrees water and soap or thorough cleaning of organic material followed by clean water spray (i.e. gravel, sand, grass, etc.) (pick the best answer to make this statement true)

- a. Must be sanitized with 2% household bleach
- b. Are exempt from routine sanitation
- c. Must be sanitized by removal of contaminated material as necessary
- d. Must be sanitized by covering contaminated material with >2" of additional material

Answer: c.

Reference: AWA, 3.11, 4.

# What does this safety symbol represent?

- a. Carcinogens
- b. Laser
- c. Biohazard
- d. Irradiated food





# What does this safety symbol warn against?

- a. Carcinogens
- b. Laser
- c. Biohazard
- d. Irradiated food

Answer: d.

Reference: FDA (Codex Alimentarius); Feed bags





In accordance with the Animal Welfare Act, for how long must records that relate directly to activities approved by the IACUC be maintained beyond the duration of the activity?

- a. Duration of the activity only
- b. Duration plus one year
- c. Duration plus two years
- d. Duration plus 3 years

In accordance with the Animal Welfare Act, for how long must records that relate directly to activities approved by the IACUC be maintained beyond the duration of the activity?

- a. Duration of the activity only
- b. Duration plus one year
- c. Duration plus two years
- d. Duration plus 3 years

Answer: d.

Reference: LAM 2nd edition, pg 23.

According to the *Guide*, what is the maximum recommended temperature for storing purified and chemically defined diets?

- a. 4° C
- b. 12° C
- c. 18° C
- d. 21° C

According to the *Guide*, what is the maximum recommended temperature for storing purified and chemically defined diets?

- a. 4° C
- b. 12° C
- c. 18° C
- d. 21° C

Answer: a.

Reference: Guide, 1996, pg 39.

**According to the** *Guide***, what is the recommended drybulb temperature for housing rabbits?** 

- a. 64-84 F
- **b.** 61-72 F
- c. 62-75 F
- d. 61-81 F

According to the *Guide*, what is the recommended drybulb temperature for housing rabbits?

- a. 64-84 F
- **b.** 61-72 F
- c. 62-75 F
- d. 61-81 F

Answer: b.

Reference: Guide, 1996, pg 32.

Temperature control systems should be capable of maintaining temperatures within \_\_\_\_\_ degrees of the set point between 18 and 29° C. Fill in the blank.

- a. ±4°C
- b. ±3°C
- c. ±2°C
- d. ±1°C

Temperature control systems should be capable of maintaining temperatures within \_\_\_\_\_ degrees of the set point between 18 and 29° C. Fill in the blank.

- a. ±4°C
- b. ±3°C
- c. ±2°C
- d. ±1°C

Answer: d.

Reference: LAM 2nd edition, pg 925 and the Guide pg 75.

Which of the following is NOT true regarding the major mouse allergen Mus m 1?

- a. Mus m 1 is produced in the liver and saliva
- b. Mus m 1 is highly secreted in the urine
- c. Female mice secrete nearly twice as much Mus m 1 as male mice
- d. Mus m 1 has 80% amino acid sequence homology with Rat n1 B

Which of the following is NOT true regarding the major mouse allergen Mus m 1?

- a. Mus m 1 is produced in the liver and saliva
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- c. Female mice secrete nearly twice as much Mus m 1 as male mice
- d. Mus m 1 has 80% amino acid sequence homology with Rat n1 B

Answer c.

Reference: Occ. Health and Safety in the Care and Use of Res. Animals, pg 56.

According to the AWA, Class 'B' dealers may not obtain random source dogs and cats from which of the following sources?

- a. Licensed dealers
- b. Hobby breeders
- c. Shelters owned and operated by a state, county or city
- d. Humane shelters or contract pounds

According to the AWA, Class 'B' dealers may not obtain random source dogs and cats from which of the following sources?

- a. Licensed dealers
- b. Hobby breeders
- c. Shelters owned and operated by a state, county or city
- d. Humane shelters or contract pounds

Answer: b.

Reference: AWA 2.132,a.

An official USDA identification tag may not be used to identify more than one animal or reused within a \_\_\_\_\_year period. (Fill in the blank)

- a. 7
- b. 5
- c. 3
- d. 2

An official USDA identification tag may not be used to identify more than one animal or reused within a \_\_\_\_\_ year period. (Fill in the blank)

- a. 7
- b. 5
- c. 3
- d. 2

Answer: b.

Reference: AWA 2.38, g, 6.

For rabbits housed outdoors, artificial cooling shall be provided when the outside temperature exceeds \_\_\_\_\_?

- a. 75° F
- b. 80° F
- c. 85° F
- d. 90° F

For rabbits housed outdoors, artificial cooling shall be provided when the outside temperature exceeds \_\_\_\_\_?

- a. 75° F
- b. 80° F
- c. 85° F
- d. 90° F

Answer: d.

Reference: AWA 3.52, a

For rabbits housed outdoors, shelter shall be provided when outside temperatures fall below \_\_\_\_\_?

- a. 30 °F
- b. 35° F
- c. 40° F
- d. 45° F

For rabbits housed outdoors, shelter shall be provided when outside temperatures fall below \_\_\_\_\_?

- a. 30 °F
- b. 35° F
- c. 40° F
- d. 45° F

Answer: c.

Reference: AWA 3.52, a

The institution must appoint an Institutional Biosafety Committee (IBC) that must have at least \_\_\_ members who have experience in recombinant DNA technology, biosafety, and physical containment, with at least \_\_\_ members not affiliated with the institution who represent the general interest of the surrounding community.

- a. 4, 3
- b. 3, 3
- c. 5, 2
- d. 3, 2

The institution must appoint an Institutional Biosafety Committee (IBC) that must have at least \_\_\_ members who have experience in recombinant DNA technology, biosafety, and physical containment, with at least \_\_\_ members not affiliated with the institution who represent the general interest of the surrounding community.

- a. 4, 3
- b. 3, 3
- c. 5, 2
- d. 3, 2

Answer: c.

Reference: LAM 2nd edition, p31.

Plastic or fiberglass-coated wire floors are now required if the wire is less than or equal to \_\_\_\_ inch in diameter.

- a. 1 inch
- b. ½ inch
- c. ½ inch
- d. 1/8 inch

Plastic or fiberglass-coated wire floors are now required if the wire is less than or equal to \_\_\_\_ inch in diameter.

- a. 1 inch
- b.  $\frac{1}{2}$  inch
- c. ½ inch
- d. 1/8 inch

Answer: d.

Reference: LAM 2nd edition, p 937.

According to the 2000 AVMA panel report on euthanasia, what is the best choice for equine euthanasia?

- a. Captive bolt
- b. Succinylcholine
- c. Pentobarbital or some pentobarbital combination
- d. Gunshot

According to the 2000 AVMA panel report on euthanasia, what is the best choice for equine euthanasia?

- a. Captive bolt
- b. Succinylcholine
- c. Pentobarbital or some pentobarbital combination
- d. Gunshot

Answer: c.

Reference: 2000 AVMA panel report on euthanasia. pg 685

Thoracic (cardiopulmonary) decompression is an appropriate physical technique of euthanasia in the field for which of the following?

- a. Diving birds
- b. Voles
- c. Small to medium free-ranging birds
- d. Mustelids

Thoracic (cardiopulmonary) decompression is an appropriate physical technique of euthanasia in the field for which of the following?

- a. Diving birds
- b. Voles
- c. Small to medium free-ranging birds
- d. Mustelids

Answer: c.

Reference: 2000 AVMA panel report on euthanasia. pg. 683

What must occur prior to using electrocution as a method of euthanasia for dogs, sheep or foxes?

- a. Physical restraint secured
- b. Animal is rendered unconscious
- c. Head must be moistened
- d. Flammable materials removed from the premises

What must occur prior to using electrocution as a method of euthanasia for dogs, sheep or foxes?

- a. Physical restraint secured
- b. Animal is rendered unconscious
- c. Head must be moistened
- d. Flammable materials removed from the premises

Answer: b.

Reference: 2000 AVMA panel report on euthanasia. pg. 683

According to the 2000 AVMA panel report on euthanasia, what is one of the stated disadvantages of potassium chloride as a method of euthanasia?

- a. Rippling of muscle tissue and clonic spasms may occur
- b. Use in the field may leave highly toxic carcasses for scavengers
- c. Potassium chloride is difficult to obtain
- d. Potassium chloride use is required in conjunction with a physical method

What is one of the stated disadvantages of potassium chloride as a method of euthanasia?

- a. Rippling of muscle tissue and clonic spasms may occur
- b. Use in the field may leave highly toxic carcasses for scavengers
- c. Potassium chloride is difficult to obtain
- d. Potassium chloride use is required in conjunction with a physical method

Answer: a.

Reference: 2000 AVMA panel report on euthanasia. pg. 681

The minimum interior height of a rabbit enclosure must be?

- a. 18 in
- b. 16 in
- c. 14 in
- d. 12 in

The minimum interior height of a rabbit enclosure must be?

- a. 18 in
- b. 16 in
- c. 14 in
- d. 12 in

Answer: c.

Reference: AWA 3.53, e, 2.

Primary enclosures for rabbits shall be sanitized at least?

- a. Once a day
- b. Once every week
- c. Once every other week
- d. Once every 30 days

Primary enclosures for rabbits shall be sanitized at least?

- a. Once a day
- b. Once every week
- c. Once every other week
- d. Once every 30 days

Answer: d.

Reference: AWA 3.56, b, 1.

Not more than \_\_\_\_ live rabbits shall be transported in the same primary enclosure.

- a. 8
- b. 10
- c. 12
- d. 15

Not more than \_\_\_\_ live rabbits shall be transported in the same primary enclosure.

- a. 8
- b. 10
- c. 12
- d. 15

Answer: d.

Reference: AWA, 3.61.

Minor allergenic components have been found in rabbit and \_\_\_\_\_?

- a. Fur and urine
- b. Saliva and urine
- c. Fur and saliva
- d. Saliva and serum

Minor allergenic components have been found in rabbit and?

- a. Fur and urine
- b. Saliva and urine
- c. Fur and saliva
- d. Saliva and serum

Answer: b.

Reference: Occ. Health and Safety in the Care and Use of Res. Animals, pg 56.

#### The major cat allergen is?

- a. Cat e 1
- b. Sof a 1
- c. Boh c 2
- d. Feld 1

#### The major cat allergen is?

- a. Cat e 1
- b. Sof a 1
- c. Boh c 2
- d. Feld 1

#### Answer: d.

Reference: Occ. Health and Safety in the Care and Use of Res. Animals, pg 57.

The minimum height for perimeter fencing of nonhuman primate housing is?

- a. 5 ft
- b. 6 ft
- c. 10 ft
- d. 12 ft

The minimum height for perimeter fencing of nonhuman primate housing is?

- a. 5 ft
- b. 6 ft
- c. 10 ft
- d. 12 ft

Answer: b.

Reference: AWA 3.78,d.

Innovative primary enclosures for nonhuman primates that do not precisely meet the specified requirements but do provide the animals with sufficient space and the opportunity to express species-typical behavior may be used when approved by the \_\_\_\_\_\_ at a research facility.

- a. Attending veterinarian
- b. IACUC
- c. Institutional official
- d. Principal investigator's department Chair

Innovative primary enclosures for nonhuman primates that do not precisely meet the specified requirements but do provide the animals with sufficient space and the opportunity to express species-typical behavior may be used when approved by the \_\_\_\_\_\_ at a research facility.

- a. Attending veterinarian
- b. IACUC
- c. Institutional official
- d. Principal investigator's department Chair

Answer: b.

Reference: AWA 3.8,c.

Fire alarms in a rodent housing facility should be selected to operate between?

- a. 100-200 kHz
- b. 400-500 kHz
- c. 900-1000 kHz
- d. 1200-1300 kHz

Fire alarms in a rodent housing facility should be selected to operate between?

- a. 100-200 kHz
- b. 400-500 kHz
- c. 900-1000 kHz
- d. 1200-1300 kHz

Answer: b.

Reference: LAM 2nd edition, pg 930.

According to the *Guide*, light at the cage level for animals that have been shown to be susceptible to phototoxic retinopathy should be between?

- a. 80-90 lux
- b. 130-325 lux
- c. 425-650 lux
- d. 900-1000 lux

According to the *Guide*, light at the cage level for animals that have been shown to be susceptible to phototoxic retinopathy should be between?

- a. 80-90 lux
- b. 130-325 lux
- c. 425-650 lux
- d. 900-1000 lux

Answer: b.

Reference: The Guide, pg 35.

According to the *Guide*, cage-ceiling design to enhance brachiating movement should be employed for this species?

- a. Cebidae
- b. Papio
- c. Hylobates
- d. Callitrichidae

According to the *Guide*, cage-ceiling design to enhance brachiating movement should be employed for this species?

- a. Cebidae
- b. Papio
- c. Hylobates
- d. Callitrichidae

Answer: c.

Reference: Guide, pg 29.

#### What does the acronym ASHRAE stand for?

- a. American Society for Heating, Refrigeration, and Air Conditioning Engineers
- b. American Society for Hallway, Rack and Automatic Washer Engineers
- c. Automated Systems for Heating, Refrigeration, and Air Conditioning Entities
- d. Associated Service for Heating, Refrigeration, and Air Supply Engineers

What does the acronym FIFRA stands for \_\_\_\_\_?

- a. American Society for Heating, Refrigeration, and Air Conditioning Engineers
- b. American Society for Hallway, Rack and Automatic Washer Engineers
- c. Automated Systems for Heating, Refrigeration, and Air Conditioning Entities
- d. Associated Service for Heating, Refrigeration, and Air Supply Engineers

Answer: a.

Reference: Handbook of Facilities Planning Vol. 2
Laboratory Animal Facilities pg. 308

Routine diagnostic work with clinical HIV specimens can be done safely at?

- a. BSL 4
- b. BSL 3
- c. BSL 2
- d. BSL 1

Routine diagnostic work with clinical HIV specimens can be done safely at?

- a. BSL 4
- b. BSL 3
- c. BSL 2
- d. BSL 1

Answer: c.

Reference: BMBL pg. 171

Each research facility must submit an annual report to the USDA on or before what date?

- a. January 1
- b. January 15
- c. March 22
- d. December 1

Each research facility must submit an annual report to the USDA on or before what date?

- a. January 1
- b. January 15
- c. March 22
- d. December 1

Answer: d.

Reference: LAM 2nd edition, pg 23.

The annual report that is submitted should provide information relevant to the preceding fiscal year covering what time period?

- a. Dec.1-Nov. 30
- b. Oct. 1-Sept. 30
- c. July 1-June 30
- d. Jan.1- Dec 30

The annual report that is submitted should provide information relevant to the preceding fiscal year covering what time period?

- a. Dec.1-Nov. 30
- b. Oct. 1-Sept. 30
- c. July 1-June 30
- d. Jan.1- Dec 30

Answer: b.

Reference: LAM 2nd edition, pg 23.

According to the *Guide*, how often should small animals, such as rodents, on fluid restriction be weighed?

- a. At least daily
- b. At least every other day
- c. At least twice a week
- d. At least once a week

According to the *Guide*, how often should small animals, such as rodents, on fluid restriction be weighed?

- a. At least daily
- b. At least every other day
- c. At least twice a week
- d. At least once a week

Answer: d.

Reference: Guide, pg 12.

According to the AWA, the formula for calculating the space requirement for a dog is?

- a. [(The sum of the length of the dog in inches plus 6) times 2] then divided by 144
- b. [(The sum of the length of the dog in inches plus 4) squared] then divided by 124
- c. [(The sum of the length of the dog in inches plus 6) squared] then divided by 144
- d. (The length of the dog times the height of the tallest dog) divided by 12

According to the AWA, the formula for calculating the space requirement for a dog is?

- a. [(The sum of the length of the dog in inches plus 6) times 2] then divided by 144
- b. [(The sum of the length of the dog in inches plus 4) squared] then divided by 124
- c. [(The sum of the length of the dog in inches plus 6) squared] then divided by 144
- d. (The length of the dog times the height of the tallest dog) divided by 12

Answer: c.

Reference: AWA, 3.6, c, 1.

According to the AWA, to what weight group do male macaques and African species of nonhuman primates belong?

- a. Group 1
- b. Group 2
- c. Group 3
- d. Group 4
- e. Group 5

According to the AWA, to what weight group do male macaques and African species of nonhuman primates belong?

- a. Group 1
- b. Group 2
- c. Group 3
- d. Group 4
- e. Group 5

Answer: d.

Reference: AWA, 3.80, footnote 3 and 4.

What is the maximum number of adult, nonconditioned, compatible cats that may be housed in the same primary enclosure?

- a. 4
- **b.** 8
- c. 12
- d. 16

What is the maximum number of adult, nonconditioned, compatible cats that may be housed in the same primary enclosure?

- a. 4
- b. 8
- c. 12
- d. 16

Answer: c.

Reference: AWA 3.6, b, 2.

The Guide recommends that corridors should be how wide?

- a. 5-7 ft
- b. 6-8 ft
- c. 7-9 ft
- d. 8-10 ft

The Guide recommends that corridors should be how wide?

- a. 5-7 ft
- **b.** 6-8 ft
- c. 7-9 ft
- d. 8-10 ft

Answer: b.

Reference: Guide, pg 73.

According to the *Guide*, the appropriate height of a rat cage should be?

- a. As tall as the tallest rat when standing
- b. 6 inches
- c. 7 inches
- d. 8 inches

According to the *Guide*, the appropriate height of a rat cage should be?

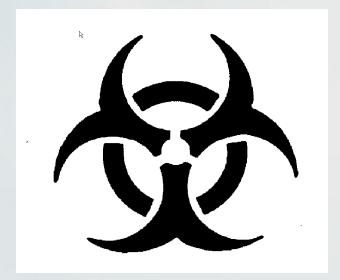
- a. As tall as the tallest rat when standing
- b. 6 inches
- c. 7 inches
- d. 8 inches

Answer: c.

Reference: Guide, pg 27, table 2.1.

# What does this symbol represent?

- a. Biohazards
- b. Radiation
- c. Steam
- d. Lasers

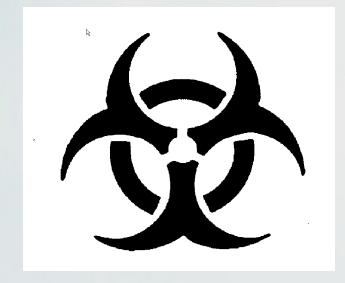


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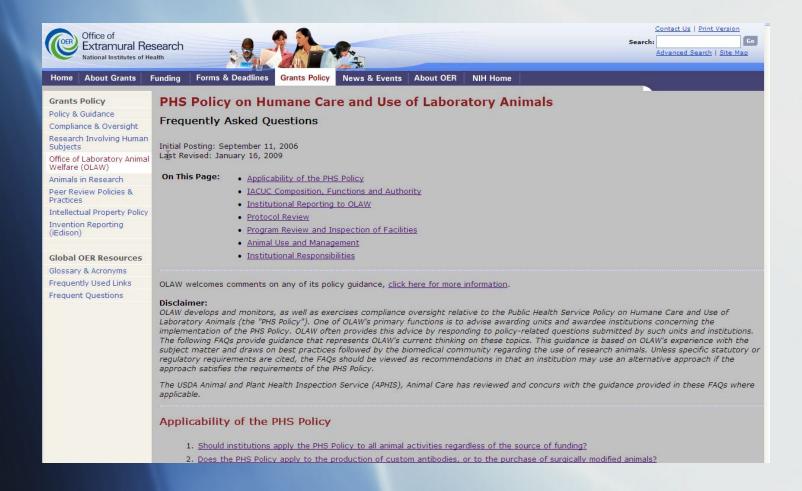
Answer: a.

Reference: BMBL Cover

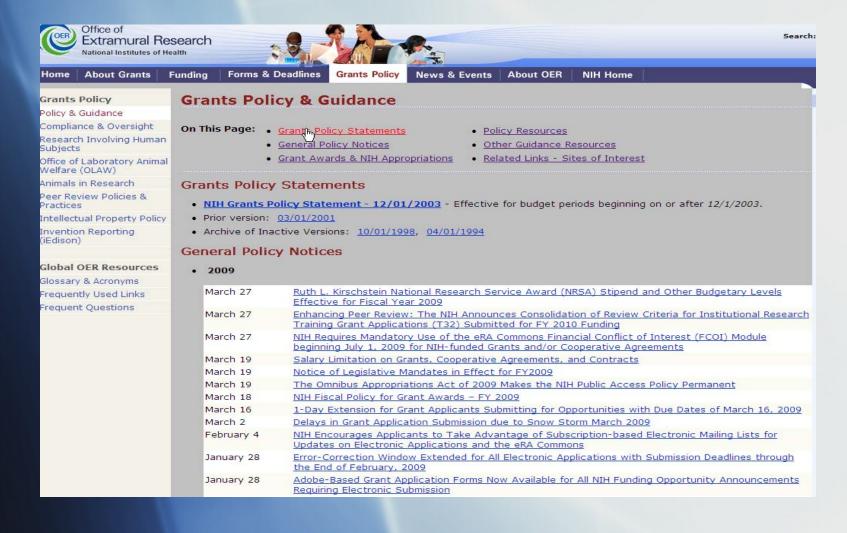


#### PHS-OLAW website-FAQ's-

http://grants.nih.gov/grants/olaw/faqs.htm

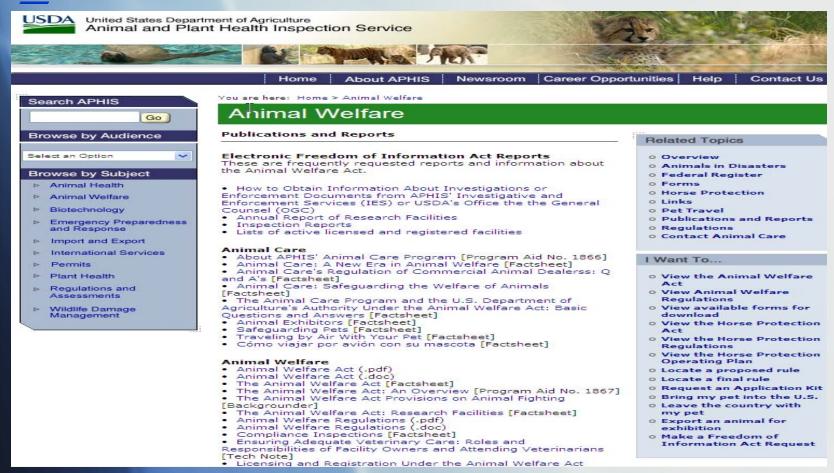


#### PHS-OLAW website-policy & guidance letters



#### **USDA-publications and reports**

http://www.aphis.usda.gov/animal\_welfare/publications\_and\_reports.sht ml



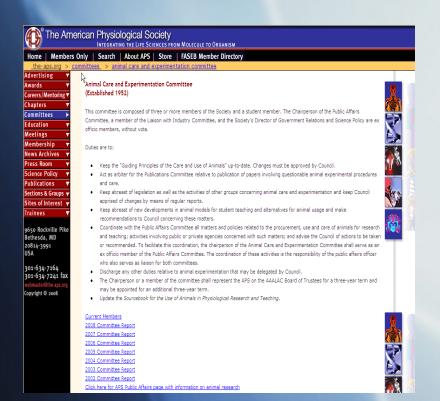
NABR, FBR, AMP-obtain electronic notifications (emails); monitor for stakeholder impact

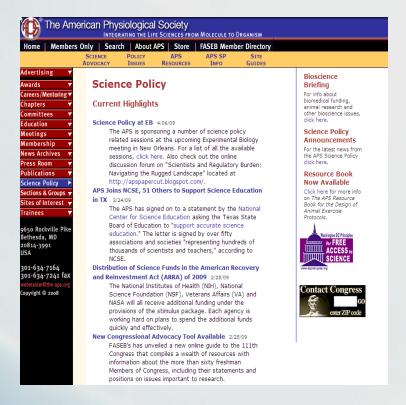
http://www.nabr.org/

http://www.amprogress.org

http://www.fbresearch.org/

#### **APS-American Physiological Website**





European Directive 86-609 Appendix A cage size-under revision

http://ec.europa.eu/environment/chemicals/lab\_animals/revision\_en.htm

# International Organizations-World is Getting Smaller

IACLAM-http://www.iaclam.org/

JCLAM-http://plaza.umin.ac.jp/JALAM/

KCLAM-pjhak@snu.ac.kr

ECLAM-http://www.eclam.org/

## International Organizations

FELESA-http://www.felasa.eu/; position papers published in <u>Lab Animals</u>; have policy statements, working group information, and guidelines on website

National Centre for Replacement, Refinement, and Reduction of Animals in Research-http://www.nc3rs.org.uk/

**OECD** (Organization for Economic Co-operation and Development)-**Guidance** Document on the Recognition, Assessment, and Use of **Clinical Signs** as Humane Endpoints for Experimental Animals Used in Safety Evaluation-

http://www.olis.oecd.org/olis/2000doc.nsf/LinkTo/env-jm-mono(2000)7

ICH-International Conference on Harmonization-http://www.ich.org/

## Acknowledgements

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