The current Russian regulations (No 1045-73) cover the following general areas:

1. Location and design of animal facilities
2. Sanitary requirements of animal facilities
3. Housing and husbandry requirements
4. Receipt of animals into the facility
5. Rules of personal hygiene
6. Regulations for humane treatment of animals (one page, very brief)

Relevant areas of the AWA that are not addressed in the Russian regulations:

1. Institutional Animal Care and Use Committee
   a. Membership
   b. Facility inspection and program review (written reports)
   c. Reporting of noncompliance (whistle blower)
   d. Written protocols/addenda and review/approval of same

2. Personnel qualifications and training
3. Attending veterinarian and adequate veterinary care
4. Recordkeeping requirements
   a. Minutes of IACUC meetings
   b. Protocols and addenda
   c. Facility and program reviews

5. Annual report
   a. Assurances
   b. Numbers and types of animals used

DoD Policy: The last sentence of the paragraph dealing with activities sponsored in foreign countries states, "If differences exist between U.S. and host country regulations or standards, unless prohibited by the host country, the more stringent standard shall apply".

If we require compliance with the Russian regulations and those tenets of the AWA regulations stated above I believe we would meet the full spirit of the AWA regulations, as long as the Russians agree to meet the requirements of their own regulations. Some items WILL be prohibited by the host country for various reasons. By taking this approach I think we can meet the requirements of the DoD Policy without a whole lot more than we have already discussed in our previous meeting. We all know the real bottom line: Humane research, accurate and meaningful results.

Jim
Russian regulations for laboratory animal care

Approved
Chief Government Health Officer of the USSR
P. N. Burgasov
April 6, 1973
No 1045-73

Sanitary Regulations

for the organization, equipment and maintenance of
animal facilities for experimental biology (vivaria)

I. General regulations

1.1 The present rules apply to all departments of the system of the Ministry of Public Health of the USSR which use animals in their experimental work (scientific research institutes, teaching institutions, clinics, departments of health and epidemiology, etc.), and also to institutions of other ministries and departments.

1.2 Animal facilities for experimental biology (vivaria) constitute a subdivision of scientific departments, created to support, and in some cases to breed laboratory animals for medical-biological research. Independent investigations on scientific questions may also be carried out in animal facilities (vivaria).

1.3 Work in animal facilities (vivaria) is to be organized in accordance with the requirements of the present regulations.

1.4 Local departments of public health and the local veterinary health department must approve the organization of animal facilities. These departments subsequently must perform supervision the performance and sanitary conditions of the animal facilities.

1.5 The chief of an animal facility must possess the highest zoological-technical, biological, medical or veterinary education. He is subordinate to the director of the department or to his assistant for scientific work. In large scientific departments, using a large number of laboratory animals, sections or laboratories of experimental animals are organized such that the chief of the animal facility is subordinate to the head of the department or laboratory.

The chief of an animal facility bears the responsibility for its sanitary condition and freedom from infectious disease.

The staff of an animal facility bear the responsibility for the observance of instructions and regulations for care, feeding and support of experimental animals.

M. Bray

1

12/4/98
Russian regulations for laboratory animal care

The service employees of an animal facility perform the care of laboratory animals in the course of their work. Inspection of the condition of laboratory animals is carried out by the staff of the department or laboratory performing the research.

1.6 The total number of service employees needed for an animal facility is determined on the basis of the volume and character of the experimental research and the number of laboratory animals. To determine the required number of service employees, it is necessary to use the following standards for the workload per employee (including the standards for housing animals in cages).

<table>
<thead>
<tr>
<th>Types of animals</th>
<th>Number of animals</th>
<th>Number of cages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mice</td>
<td>800-1000</td>
<td>80-100</td>
</tr>
<tr>
<td>Rats</td>
<td>600-700</td>
<td>80-100</td>
</tr>
<tr>
<td>Hamsters</td>
<td>600</td>
<td>60-70</td>
</tr>
<tr>
<td>Guinea pigs</td>
<td>400</td>
<td>50-70</td>
</tr>
<tr>
<td>Rabbits</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Dogs</td>
<td>18-20</td>
<td>18-20</td>
</tr>
<tr>
<td>Cats</td>
<td>35-40</td>
<td></td>
</tr>
</tbody>
</table>

When one person is taking care of several types of animals, the calculation is carried out based on the above standards. In each actual case, to set the workload for one worker caring for animals, it is necessary to consider the type of cages, the level of mechanization of the work, the type of feed (natural or granulated), the work schedule, the nature and particular characteristics of the research, etc.

1.7 The present regulations set forth general, obligatory requirements for the care of laboratory animals under experimental conditions. When working with radioactive materials or especially dangerous infections, and also when caring for animals not on the above list, the work standards will be set by the chief of the scientific department, on the basis of the time required for individual operations, and taking into account existing regulations and instructions, approved by the Ministry of Public Health of the USSR, the Ministry of Agriculture of the USSR, and other competent departments (see the list of documents in Appendix 1).

1.8 The planning and construction of new facilities, as well as the reconstruction of existing animal facilities, must be carried out in accordance with the present regulations.

II. Requirements for location and design of animal facilities. Description of the premises and sanitary/hygienic requirements for their furnishing.

2.1 Animal facilities (vivaria) must be located in a separate building (or building complex) or on the upper floors of a laboratory building.
Russian regulations for laboratory animal care

2.2 If animal facilities are located in the main laboratory building, they must be completely isolated from other divisions. Amphibians and fish used in experiments must, as a rule, be located in ground floor or basement premises, equipped with forced in- and outflow ventilation.

2.3 The arrangement and size of the animal facility is determined by the volume and character of the research performed, and depends on the type and number of laboratory animals (mice, rats, guinea pigs, rabbits, cats, dogs, chickens, pigeons).

2.4 The design of animal facilities is based on the principle of separation of "clean" work and equipment maintenance, and "dirty" work (either a two-corridor design, or separate locations for "clean" and "dirty" services at opposite ends of a common corridor).

2.5 The premises or sections for keeping animals are isolated from other sections of the animal facility. The animal facility must include:

a) a section for experimental animals;
b) a section for quarantine and acclimatization of newly arrived animals;
c) an isolation section, set aside for keeping animals suspected of having infectious diseases, or for animals which are known to be ill, but whose destruction is not desired under the terms of the experiment;
d) operative and preoperative rooms for experimental work requiring special conditions (operations, etc.);
e) rooms for manipulations for the study of metabolic processes and tests connected with analyses, etc.;
f) feed preparation section;
g) disinfection-washing section;
h) warehouse for clean (disinfected) supplies (cages, water bottles, etc.);
i) sanitary area (showers and toilets);
j) a day (non-work) area for service personnel, including a change room;
k) a diagnostic laboratory;
l) a service laboratory;
m) a cold room for the preservation of animal cadavers;
n) in a separate location in the animal facility building, a technical center for air conditioning, ventilation, electrical system and other special functions.

2.6 The special requirements for construction, operation and manipulation of facilities are determined in each case by the mission and the conditions of the scientific investigation.

2.7 The feed preparation section consists of two adjacent rooms, designated for the manufacture and preparation of feed. Each room must have an exit to the corridor.

M. Bray 3 12/4/98
Russian regulations for laboratory animal care

2.8 The disinfection-washing section (one or several) is made up of two rooms, connected by a communicating autoclave or communicating hot, dry chamber. Depending on the character of the research, the sequence of operations in the disinfection/washing section may be either of the following:

a) in the presence of infectious material – preliminary sterilization of equipment and bedding, with further mechanical cleaning in another room;

b) sterilization after mechanical cleaning of cages and equipment, when there is no danger of the presence of infections material.

Note: wherever the animal facility is located (in a free-standing building, or on the upper floor of a laboratory building), it is necessary to provide the washing section with a refuse chute for disposal of dirty bedding and a mechanical lift for materials and equipment.

2.9 Diagnostic and service laboratories consist of laboratory rooms set aside for the performance of necessary investigations connected with control of the quality of animals and feed and the conditions of animal care, and for taking care of and preserving documentation.

2.10 The warehouse for clean (reserve) equipment is expediently located adjacent to the disinfection-washing section.

2.11 When designing animal facilities, it is necessary to provide maximal isolation:

a) of all rooms of the animal facility from other sections of the department;

b) of isolation and quarantine rooms from other rooms of the animal facility;

c) between the feed preparation section, the animal sections and the disinfection-washing section.

2.12 The optimal area of the rooms listed in section 2.5 (a, b, c, d, e) is from 12.5 m² to 18.0 m², with a width of 2.5 to 3 m and a depth of 5-6 m. "The height of the clean area of the walls is 3 to 3.5 m." (?)

The total area of rooms listed in section 2.5 (f, g, h) must make up approximately 50% of the total area of the section occupied by animals (in large facilities, this percentage may be somewhat lower, in small facilities somewhat higher).

In each individual case the area of rooms listed in section 2.5 (f, g, h) is fixed depending on the equipment used, the level of mechanization of work processes, the type of feed of the laboratory animals (granulated or natural) and the special tasks in the plan.

The area of remaining rooms is also determined by the special tasks of the unit.

M. Bray 4 12/7/98
Russian regulations for laboratory animal care

2.13 The floors in rooms listed in section 2.5 (a, b, c, d, e, f, g) and corridors must be made from waterproof material, without mouldings, and must slope down to an opening or gutter connected to the sewage system.

2.14 The walls of rooms listed in section 2.5 (a, b, c, d, e, f, g, h, i) must be covered from floor to ceiling with glazed tiles. The ceilings in the designated rooms, and also the walls and ceilings in the remaining rooms and corridors are to be painted with oil-based or enamel paint. The junctions between walls, floor and ceilings must be rounded to permit convenient cleaning.

2.15 Doors must be smooth, painted with oil-based or enamel paint. The upper half of the door should contain a window.

2.16 All premises must possess central heating, natural and artificial lighting. Lights and fittings of the covered type must be accessible for wet washing. Natural and artificial lighting of the work and non-work areas of the animal facility must meet the requirements of construction standards and regulations.

2.17 The rooms listed in section 2.5 (a, b, c, d, e, f, g) are equipped with forced intake-outflow ventilation, providing the various rooms of the animal facility with multiplicity of air exchanges and the microclimatic conditions listed in Appendix 2. The requirements for design of the ventilation system are set by construction standards and regulations.

2.18 The rooms enumerated in section 2.5 (a, b, c, d, e, f, g, h, i, j, k) must be supplied with hot and cold water and must be connected to the sewage system. In rooms for keeping dogs and other large animals, the diameter of the sewer pipe must be no less than 100 mm. The position of sanitary-technical equipment in the rooms must provide free access for personnel to work in and clean the room.

The main boxes for inflow and outflow ventilation, electrical supply, water and sewer pipes must be placed in special recesses in the corridors, possessing free access for prophylactic inspections and repairs.

III. Equipment for animal facilities and conditions for housing animals

3.1 Mice, rats, hamsters, guinea pigs and rabbits are housed in cages, placed in metal racks.

3.2 Wall-mounted or other types of racks must have removable brackets and movable shelves, permitting them to be used with cages of various dimensions, for different types of laboratory animals.

3.3 Calculation of the work area must be derived from the following standards for housing animals in cages:

M. Bray 5 12/4/98
Russian regulations for laboratory animal care

<table>
<thead>
<tr>
<th>Type of animal</th>
<th>Minimal area of the bottom of the cage for 1 animal (cm²)</th>
<th>Maximum permitted number of animals in the cage</th>
<th>Number of animals in 1 m² of floor space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mice</td>
<td>40</td>
<td>15</td>
<td>65 adults or 240 pups</td>
</tr>
<tr>
<td>Rats</td>
<td>150</td>
<td>10</td>
<td>20 adults or 100 pups</td>
</tr>
<tr>
<td>Hamsters</td>
<td>100</td>
<td>5</td>
<td>30-40</td>
</tr>
<tr>
<td>Guinea pigs</td>
<td>300</td>
<td>5</td>
<td>15-18</td>
</tr>
<tr>
<td>Rabbits</td>
<td>2000</td>
<td>1</td>
<td>3-4</td>
</tr>
</tbody>
</table>

Note: a) In order to approximately determine the work area, use the figure, that 1 cm² of the cage bottom corresponds to 1 g weight of animal; b) shelves are mainly located along the walls and occupy approximately 40% of the work area.

3.4 Dogs are housed in individual compartments (boxes). The minimal area for each dog is 1.5 m². The size of the boxes must be based on the length and height of the animals.

3.5 Cats are housed in pens of 5 animals, provided with shelves with a sufficient area for all the animals to lie down. The area for each cat is 5000 cm². In front of the entrance to the pen is an entranceway covered with netting.

3.6 In case it is necessary to use large domestic animals (horses, cows, sheep, pigs, etc.) and birds for scientific purposes, their housing should be based either on standard designs, or should be planned based on special standards and regulations approved by the Government Construction Office of the USSR (Construction standards and regulations) or by the Ministry of Agriculture of the USSR.

IV. Reception of new animals in the facility

4.1 Animal facilities are restocked with animals and birds from specialized breeding facilities free of infectious diseases.

Acquisition of animals and birds from other government or cooperating organisations is permitted when it is not possible to purchase them from specialized breeding facilities. In individual cases it is permissible to purchase dogs from private individuals in accordance with veterinary health regulations.

4.2 Reception of new animals in the facility requires either veterinary certificates (form 1) or accompanying documents from the breeding facility, given in Appendices 3 and 4.

4.3 Animals received from specialized breeding facilities (located in the same city or region) are housed in isolation sections for a period of 3 days to adapt to their new conditions. The subsequent periods of isolation or quarantine for these animals, and also for animals received from breeding facilities located in other cities, are

M. Bray 6 12/4/98
Russian regulations for laboratory animal care

determined depending on the conditions for keeping the animals, the nature of the impending experiments, the length and conditions of transport, etc.

4.4 For animals not received from specialized breeding facilities, the following periods of quarantine have been set:

- for mice and rats: 14 days
- for guinea pigs and rabbits: 21 days
- for dogs and cats: 30 days
- for other animals and birds: 21 days

In individual cases, when using pregnant females, newborn or young animals, and also for brief experiments, the period of quarantine may be shortened, on condition that the animals are housed in an isolation area under appropriate observation.

4.5 During the quarantine period, daily clinical observations, temperature measurement and registration of the general condition of the animals should be carried out and recorded in a special register (journal), of the form shown in Appendix No. 5.

4.6 In the quarantine and experimental sections of the facility, animals are to be housed in clean, previously disinfected (autoclaved) cages.

4.7 The care of animals located in quarantine is to be carried out by personnel assigned to those rooms.

4.8 It is forbidden to take feed, work clothing or equipment out of quarantine rooms into other rooms or sections for experimental animals.

4.9 Regular changes of cages (tanks) are carried out during the course of the quarantine period. At the end of quarantine, the used cages and equipment are transferred to the disinfection/wash section.

The cleaning and washing of cages and other equipment from quarantine sections can be carried out in the common (shared) disinfection/wash section of the animal facility only after preliminary disinfection. Waste also must be disinfected or burned. In each individual case, methods of disinfection, destruction of insects and autoclaving are determined by the specific nature of the work of the facility.

4.10 During the period of adaptation or quarantine of animals suspected of having infectious diseases, there must be confirmation through bacteriological investigation. In case of confirmed infectious disease in mice, rats, hamsters, guinea pigs and rabbits, all of the newly arrived animals are to be destroyed. In the case of dogs, cats and other domestic animals, the quarantine period is to be extended, depending on the disease found.

M. Bray 7 12/4/98
Russian regulations for laboratory animal care

4.11 After each group of animals has been transferred out of quarantine, and after each incident of infectious disease, the quarantine rooms must be subjected to a thorough disinfection.

4.12 In the case of a massive outbreak of disease among animals held in quarantine, or in which individual animals are discovered, during the experimental period, to be infected with diseases which are especially dangerous to animals or humans, a set of necessary prophylactic measures are to be carried out in the animal facility. In this case the performance of animal experiments is temporarily halted.

4.13 On the expiration of the quarantine period, animals are moved to the experimental section of the animal facility.

V. Working procedures and special regulations for keeping experimental animals

5.1 It is recommended that animals of only one kind be kept in each room. If it is necessary, under experimental conditions, to jointly house more than one kind of animal in one section, they should be housed in separate racks.

5.2 In each cage (box, pen, etc.) there should be a label providing data on the animals and the time course of the experiment (a sample label is shown in Appendix No. 6).

5.3 Laboratory animals and birds are kept in cages with solid bottoms for bedding or in cages with a mesh bottom or floor. Bedding materials may include sawdust, wood shavings or a layer of peat. Bedding must first be autoclaved or held in a hot, dry chamber (150-180° C for 15-20 minutes). The thickness of the layer of bedding in the cages should be 5-10 mm. For animals kept in cages with a mesh bottom, the bedding is spread in a flat pan.

5.4 All work in caring for laboratory animals is to be carried out in accordance with the work schedule and regulations approved by the chief of the department. The work schedule must provide time for cleaning rooms and equipment, distributing feed and performing experimental work and manipulations.

5.5 The feeding of laboratory animals is carried out in accordance with standards set by order of the Minister of Public Health of the USSR on 10 March 1966, No. 163.

5.6 Feed and its ingredients are kept in a room or warehouse specially designated for that purpose. Feed is issued in a fixed sequence.

Only a two- or three-day supply of feed may be kept in the feed preparation section of the animal facility. If animals are being given granulated feed, or are
Russian regulations for laboratory animal care

fed from troughs, it is permissible to receive a 7-10 day supply of feed from the warehouse.

5.7 Special metal or metal-lined containers are used to store the supply of feed in the feed preparation section and in the storerooms of the animal facility. Perishable items are kept in a refrigerator. Removal of feed from the warehouse is performed by specially assigned personnel (workers who do not occupy with the direct care of animals).

5.8 The distribution of feed to the various rooms and sections of the animal facility is performed by workers specially assigned to that task, or by personnel of the feed preparation section, using pre-sterilized vessels or containers assigned to each section. The quantity distributed is set in accordance with the actual number of animals present each day, taking into account the number of dead or euthanized animals, as reported to the accounting department.

5.9 Workers who take care of animals, and persons who do not work in the animal facility, are forbidden to enter the feed preparation section.

5.10 The provision of drinking water to laboratory animals from the general water supply, and the quality of drinking water, must meet government standards for potable water.

5.11 The germination of grain for green fodder for laboratory animals is carried out in locations specially set aside for this purpose. It is permissible to feed animals root vegetables, providing they are not moldy.

5.12 The distribution of feed and water to animals must be performed only after completion of cleaning the room, cleaning and changing cages, and removing dirty equipment, refuse, bedding and other materials for disposal or disinfection.

5.13 Cleaning of cages and the clean-up of the animal room is performed using equipment which is strictly assigned to each room.

5.14 When periodically changing cages, 1-2 times a week, animals are placed into previously disinfected cages containing prepared bedding, feeding troughs and water bottles. Dirty cages, together with bedding, troughs and water bottles are transferred to the disinfection-washing section for processing.

5.15 Cleaning of cages is performed daily. The dirty bedding and other waste from the cages is placed in special large, covered metal cans. The cans are covered tightly and transferred to the disinfection section.

5.16 When using cages with mesh bottoms, which contain separate pans for bedding, the latter must be replaced periodically with new ones (at least once a week). The

M. Bray 9 12/4/98
Russian regulations for laboratory animal care

dirty pans and bedding are transferred to the disinfection-washing section for processing.

5.17 When one worker is taking care of several types of laboratory animals, he should first clean the guinea pig cages, then the cages of mice, rats and rabbits. Rooms housing dogs and cats should be cleaned last.

5.18 It is forbidden to wash and disinfect cages, feeding troughs and water bottles directly in the animal rooms.

5.19 Before the end of the workday, the floor in each section is to be washed using a 1% solution of chloramine or other disinfectant substance. A “cleaning day” will be held not less than once a month, in the course of which all rooms will be cleaned up. The procedures for carrying out the “cleaning day” are set out by the chief of the animal facility.

5.20 Disinfection, cleaning and washing of cages, feeding troughs, water bottles and other equipment are carried out by workers specially assigned to the disinfection-washing section. Inspection of the effectiveness of washing and disinfection of equipment is the responsibility of the chief veterinarian of the animal facility.

5.21 Conditions for removal, storage and disposal (or utilization) of waste (bedding, manure, leftover feed, etc.) must be determined in each individual case with the consent of local agencies and public health departments. In work involving infectious materials, it is necessary to render the waste harmless by means of autoclaving or the use of disinfectant solutions.

5.22 In laboratory animal sections it is necessary to maintain constant control of temperature and humidity. In order to control environmental air quality in the rooms where animals are kept, it is recommended that the concentration of harmful gases (carbon dioxide and ammonia) be determined periodically (2-3 times per month).

5.23 The assignment of animals for use in experiments is carried out in accordance with the annual requirements of the laboratory, approved by the chief of the department. Work with animals is only permitted during hours set forth in the work schedule of the animal facility.

5.24 If sick animals are found in any areas, they will be destroyed or moved to isolation with the consent of the investigator. The question of the further disposition of sick animals will be decided within no longer than two days.

5.25 Animal cadavers for necropsy are held in a special refrigerator belonging to the diagnostic laboratory for no longer than one day, after which they must be destroyed. It is categorically forbidden to leave dead animals in cages or on the floor of experimental sections.
Russian regulations for laboratory animal care

5.26 Necropsies are carried out by the scientific investigator. In case of deaths of animals not expected under the conditions of the experiment, a representative of the animal facility will be present at the necropsy.

5.27 Each case of death or euthanasization of animals must be recorded in a special register, of a type in accordance with Appendix No. 7.

5.28 Persons not employed in the animal facility are forbidden to visit without special permission. Staff members performing work in the animal facility are obliged:

a) to observe the established regulations of the work schedule and methods of work;
b) to carry out systematic observations of their experimental animals;
c) to perform primary documentation and fill out cage labels for experimental animals in a timely fashion;
d) to enter only those areas of the animal facility containing animals assigned to them;
e) on completion of experiments, or of any other routine work with laboratory animals, to leave the workplace in proper order;
f) to list in a timely fashion all laboratory animals which die in the course of experiments or are euthanized;
g) to inform animal facility specialists of all observed cases of illness among laboratory animals, and to notify specialists in a timely manner of anticipated pathological conditions of animals.

5.29 Staff members working with experimental animals are forbidden to give any instructions to service personnel regarding changes in methods for the care or feeding of animals without the consent of animal facility specialists.

5.30 When carrying out combined investigations using animals in other facilities, staff members of the laboratory are forbidden to work at the same time in the animal facility of their own institute.

5.31 All activities which may cause pain to laboratory animals (surgery, exsanguination, implantation of electrodes, etc., and also euthanasia) must be carried out with the use of anesthetics. If it is contraindicated to use anesthetics under the conditions of the experiment, then the above-indicated work must be performed in the shortest possible time, under the guidance of the regulations for humane treatment of laboratory animals (Appendix No. 8).
Russian regulations for laboratory animal care

VI. Rules of personal hygiene

6.1 All animal facility personnel must be supplied with special clothing, shoes, soap and towels, in accordance with existing standards.

6.2 It is necessary to have disinfectant solution for handwashing present in all animal rooms, the feed preparation area, disinfection-washing sections, operating rooms and diagnostic laboratories.

6.3 All service personnel are required:

a) on arriving at work, to remove their outer clothing and shoes, and put on special work clothing and shoes;

b) on completion of work (and ideally at the beginning of work) to take a shower or bath in the sanitary area;

c) to hang their personal clothing and work clothes in their individual lockers, located in the various departments of the facility;

d) periodically, but not less than once a month, to disinfect their individual lockers;

e) are required to wash their hands on completion of each separate stage of work, in accordance with the work schedule, and also before meals.

6.4 It is categorically forbidden to eat or smoke in any of the operational (work) rooms of the animal facility.

6.5 All animal care workers must undergo a medical examination, including a test for carrier status for tuberculosis and all types of intestinal infections. Subsequent examinations must be carried out not less than once a year. Those who have tuberculosis, venereal disease, skin disease or other infectious diseases are not permitted to work in animal facilities.

6.6 When studies are performed with experimental animals using infectious agents dangerous for humans, the service personnel of the animal facility will receive prophylactic immunizations.

6.7 All newly arrived animal facility staff will undergo training in work and technical safety, and in specific local work procedures. The responsibility for carrying out instruction rests with the chief of the animal facility. It is forbidden for anyone to begin work without training. Repeat training will be performed not less than once a year. The results of carrying out the training course will be documented in a special register, as set out in Appendix No. 5 of the directive of the Minister of Public Health of the USSR on June 20, 1968, No. 494.

M. Bray

12

12/4/98
Russian regulations for laboratory animal care

Appendix No. 1

List of documents

regulating the work of animal facilities for experimental biology
under special circumstances

1. Instructions for working with materials which are infected, or are suspected of being infected with the agents of plague, cholera, glanders, melioidosis, smallpox, anthrax, tularemia or brucellosis. Approved by the Deputy Minister of Public Health of the USSR June 21, 1967.

2. Instructions for work with epidemic encephalitis viruses, approved by the Minister of Public Health of the USSR, January 17, 1956.

3. Instructions on measures for combatting rabies, approved by the Chief Public Health Officer of the USSR and the Chief Veterinary Officer of the Department of Agriculture of the USSR, 1964.

4. Instructions on capture, transportation and upkeep of wild vertebrate animals and arthropods, for purposes of experimental work, approved by the Government Sanitary Inspector of the Ministry of Public Health of the USSR, 1962.

5. Special sanitary regulations for work with radioactive materials and other sources of ionizing radiation, approved by the Chief Health Officer of the USSR, April 10, 1972, No. 950-72.
Russian regulations for laboratory animal care

Appendix No. 2

Recommended parameters of the microclimate in rooms for laboratory animals

<table>
<thead>
<tr>
<th>Type of animal</th>
<th>Temp (°C)</th>
<th>Relative humidity (%)</th>
<th>Maximal atmospheric concentration</th>
<th>Number of air changes (volume per hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range</td>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>Mice</td>
<td>18-22</td>
<td>20</td>
<td>50-65</td>
<td>55</td>
</tr>
<tr>
<td>Rats</td>
<td>18-22</td>
<td>20</td>
<td>50-65</td>
<td>55</td>
</tr>
<tr>
<td>Hamsters</td>
<td>18-22</td>
<td>20</td>
<td>50-65</td>
<td>55</td>
</tr>
<tr>
<td>Guinea pigs</td>
<td>15-18</td>
<td>16</td>
<td>50-65</td>
<td>55</td>
</tr>
<tr>
<td>Rabbits</td>
<td>15-18</td>
<td>16</td>
<td>50-65</td>
<td>55</td>
</tr>
<tr>
<td>Dogs</td>
<td>18-22</td>
<td>20</td>
<td>50-65</td>
<td>55</td>
</tr>
<tr>
<td>Cats</td>
<td>18-22</td>
<td>20</td>
<td>50-65</td>
<td>55</td>
</tr>
</tbody>
</table>
Russian regulations for laboratory animal care

Appendix No. 3

**Invoice**

Breeding facility for laboratory animals

Invoice #

To whom:

By way of whom: No. from

<table>
<thead>
<tr>
<th>No.</th>
<th>Name/title</th>
<th>Quantity</th>
<th>Cost</th>
<th>Total</th>
</tr>
</thead>
</table>

Approved Released Received

Date

M. Bray 15 12/4/98
Russian regulations for laboratory animal care

Appendix No. 4

Shipping document ("Group passport") No. ...... for laboratory animals

Sent to the Institute ........................................

<table>
<thead>
<tr>
<th>Type of animal</th>
<th>Breed, strain</th>
<th>Number</th>
<th>Average weight</th>
<th>Age in months and days</th>
<th>From which section No.</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rabbits</td>
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<tr>
<td>2. Guinea pigs</td>
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<tr>
<td>3. Rats</td>
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<td>4. Mice</td>
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<td>5. ........</td>
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</tbody>
</table>

The animals being shipped are clinically healthy and leave this facility free of infectious disease.
Chief technician of the breeding facility .................. (Signature)
Chief veterinarian ........................................... (Signature)
Animals received in the Institute ............................ Date
Head of the animal facility .................................. (Signature)

Continuation of group passport

Evaluation of the quality of animals after carrying out experiments

1. Brief characteristics of the experiments (acute, chronic and others) and their duration (dates).
2. Did any spontaneous illnesses occur, and were any deaths observed which were not explained by the experiment?
3. General evaluation of the quality of the animals.

................................................................................................. Date
Head of the department (laboratory) .................................

Note:
1. In shipping animals to each institute, two copies of the group passport are filled out, one of which remains at the breeding facility, the other is transported with the animals to the institute.
2. The weight and age of animals is to be indicated in kilograms and months (rabbits), or in grams and days (hamsters, guinea pigs, rats and mice).
3. Animals are sent, if possible, from a single section.

M. Bray 16 12/4/98
Russian regulations for laboratory animal care

Appendix No. 5

Registration record (journal)

Arrival and distribution of laboratory animals in animal facilities for experimental biology

<table>
<thead>
<tr>
<th>Date of arrival</th>
<th>Type of animals</th>
<th>Sex</th>
<th>Weight/age</th>
<th>Supplier</th>
<th>Distribution (# of cages, stalls)</th>
<th>Observations during quarantine</th>
<th>Date of the end of quarantine</th>
<th>To whom (where) where the animals given</th>
</tr>
</thead>
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</table>

M. Bray 17 12/4/98
Russian regulations for laboratory animal care

Appendix No. 6

Sample label

(department, laboratory) (last name of investigator)

Cage No. Beginning of experiment

Type, strain, sex of animal End of experiment

Age Special notes

Date of arrival

Signature of investigator

M. Bray 18 12/4/98
Russian regulations for laboratory animal care

Appendix No. 7

Registration record (journal) of dead or euthanized animals

<table>
<thead>
<tr>
<th>Date</th>
<th>Type of animal</th>
<th>Section, cage</th>
<th>Assumed diagnosis</th>
<th>Results of necropsy</th>
<th>Who performed necropsy?</th>
<th>Result of examination by experts, with No.</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
Regulations for humane treatment of laboratory animals

Many medical and scientific research institutes use a variety of types of animals to perform experimental work. In a number of cases, during the course of both acute or chronic experiments, various surgical or other procedures are performed which cause severe painful sensations in experimental animals.

Neither from the physiological point of view, nor from the point of view of humane treatment, can this be justified. Any painful irritation causes profound alterations in many functions of the endocrine, circulatory and other systems, which influence the results obtained in experiments, but in the majority of cases are not taken into account by the investigator.

The anesthetization of animals before and during experimental procedures is a basic requirement.

In those cases when it is proposed to perform surgical procedures, or experiments including painful irritations, anesthesia must be administered before securing the animal to the operating table.

The amount of anesthetic substance must be administered on the basis of the weight of the animal in kilograms or grams. The name of the substance and its quantity must be specified not only in the experimental protocol, but also on a special card.

During the course of the experiment, when it appears that its duration will be greater than initially expected, it is mandatory to inject additional anesthetic material.

If an acute experiment ends with the death of the animal, the investigator is obliged to euthanize the animal by means of a final injection of the anesthetic agent.

After completion of surgical intervention, the animals must be moved to a postoperative area on a special stretcher, which excludes the possibility of contaminating the wound, disrupting sutures, etc.

If, during the postoperative period, painful sensations may arise in the animal, the investigator must foresee this possibility and prescribe a pain-relieving preparation.