

ENVIRONMENTAL ENHANCEMENT	A nonhuman primate must have adequate environmental enhancement to promote psychological well-being which is outlined in an appropriate plan.[3.81]
Criteria	<p>A research facility must develop, document and follow an environmental enhancement plan for its nonhuman primates.</p> <p>The environmental enhancement plan must be:</p> <ul style="list-style-type: none">• in writing• in accordance with currently accepted professional standards as cited in appropriate professional journals or reference guides• directed and approved by the attending veterinarian• available for review by:<ul style="list-style-type: none">▸ APHIS officials▸ officials of any pertinent funding agency <p>The environmental enhancement plan must address the following:</p> <ul style="list-style-type: none">• social grouping• environmental enrichment• special considerations• restraint devices• exemptions <hr/> <p>Social Grouping [3.81(a)] The specific social needs of nonhuman primates (NHPs) known to exist in social groups in nature must be addressed in the plan.</p> <p>The specific provisions for social needs must be:</p> <ul style="list-style-type: none">• in accordance with currently accepted professional standards as cited in appropriate professional journals or reference guides• directed and approved by the attending veterinarian <p>Exemptions: An incompatible nonhuman primate is exempt from social grouping and may be housed individually if the NHP:</p> <ul style="list-style-type: none">• exhibits vicious or overly aggressive behavior [3.81(a)(1)]

- is debilitated as a result of age or other conditions, such as arthritis [3.81(a)(1)]
 - prevents access to food, water and shelter by other animals [3.81(a)(3)]
 - is hazardous to the health and well-being of other animals [3.81(a)(3)]
 - is suspected of having a contagious disease and must be isolated from the other animals as directed by the attending veterinarian [3.81(a)(2)]
- NOTE: When an entire group or room of NHPs is known to have or believed to be exposed to an infectious agent, the group may be kept intact during the process of diagnosis, treatment and control.

Incompatibility must be determined: [3.81(a)(3)]

- in accordance with generally accepted professional practices
- by actual observation, and
- under the direction of the attending veterinarian

An individually housed NHP must be able to see and hear other NHPs unless:

- the attending veterinarian determines that it would be harmful to the animal's health, safety and well-being [3.81(a)(3)]
- the IACUC modifies this requirement for scientific reasons set forth in a protocol [3.81(e)(2)]

Environmental Enrichment [3.81(b)]

The physical environment of the nonhuman primate must be enriched.

Enrichment types and methods must:

- be appropriate for expressing noninjurious species-typical behavior, and
- take into account species differences

Examples of types or methods of environmental enrichment include, but are not limited to:

- cage complexities, such as perches, swings, mirrors ropes, etc.
- objects to manipulate, such as Kong toys, puzzles, balls, paper bags, boxes, etc.
- varied food items, such as fruits, vegetables, raisins, marshmallows, etc.
- foraging or task-oriented feeding machines, such as puzzle feeders, fleece boards, artificial grass boards, termite mounds, etc.
- interaction with knowledgeable research facility personnel

Note: Interaction must be consistent with personnel safety precautions.

Special Considerations [3.81(c)]

The environment of certain NHPs must be given special consideration based on:

- the needs of the individual species
- the instructions of the attending veterinarian

Special attention is required for the following:

- infants and young juveniles [3.81(c)(1)]
 - animals that show signs of being in psychological distress through behavior or appearance [3.81(c)(2)]
 - NHPs with restricted activity required by an IACUC-approved protocol [3.81(c)(3)]
 - individually housed NHPs that are unable to see and hear other NHPs [3.81(c)(4)]
 - great apes weighing over 110 pounds [3.81(c)(5)]
- NOTE: These NHPs must have additional opportunities to express species-typical behavior.

Restraint Devices [3.81(d)]

A nonhuman primate must not be maintained in a restraint device.

Examples of restraint devices are:

- chairs
- squeeze chutes
- short tethers

Exemption:

Nonhuman primates may be maintained in restraint devices ONLY when required:

- for health reasons as determined by the attending veterinarian
- by an IACUC-approved protocol

The nonhuman primate must be:

- restrained for the shortest period possible, and
- released daily for at least one continuous hour of activity if restrained for more than 12 hours

NOTE: Continuous restraint required by a protocol must be approved by the IACUC.

Exemptions [3.81(e)]

An individual nonhuman primate may be exempted from the environmental enhancement plan:

- by the attending veterinarian. [3.81(e)(1)]
- by the IACUC as part of a protocol [3.81(e)(2)]

Attending Veterinarian Exemption:

The exemption must be: [3.81(e)(1)]

- in writing by the attending veterinarian
- based on the animal's health, condition, or well-being
- reviewed every 30 days by the attending veterinarian if the condition warranting the exemption is not permanent
- available for review by: [3.81(e)(3)]
 - ▶ APHIS officials
 - ▶ officials of any pertinent Federal funding agency

IACUC Exemption

The exemption must be: [3.81(e)(2)]

- justified for scientific reasons in the protocol

- reviewed at least annually or more often at the discretion of the IACUC
 - available for review by: [3.81(e)(3)]
 - ▶ APHIS officials
 - ▶ officials of any pertinent Federal funding agency
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