Sunshine Act Meetings

Federal Register
Vol. 56, No. 32
Friday, February 15, 1991

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

U.S. CONSUMER PRODUCT SAFETY COMMISSION

TIME AND DATE: Thursday, February 21, 1991.

LOCATION: Room 556, Westwood Towers, 5401 Westbard Avenue, Bethesda, Maryland.

STATUS: Open to the Public.

MATTERS TO BE CONSIDERED: Cigarette Lighter NPR.

The staff will brief the Commission on a notice of proposed rulemaking (NPR) for a mandatory consumer product safety standard to require disposable and novelty cigarette lighters to resist operation by children less than five years old.

For a Recorded Message Containing the Latest Agenda Information, Call (301) 492–5709.

CONTACT PERSON FOR ADDITIONAL INFORMATION: Sheldon D. Butts, Office of the Secretary, 5401 Westbard Ave., Bethesda, Md. 20207 (301) 492–6800.

Dated: February 12, 1991.

Sheldon D. Butts,

Deputy Secretary.

[FR Doc. 91–3856 Filed 2–13–91; 2:04 pm]

BILLING CODE 6355–01–M

RAILROAD RETIREMENT BOARD

Notice of Public Meeting

Notice is hereby given that the Railroad Retirement Board will hold a meeting on February 21, 1991, 9:00 a.m., at the Board's meeting room on the 8th floor of its headquarters building, 844 North Rush Street, Chicago, Illinois, 60611. The agenda for this meeting follows:

(1) B.O. 75–1, Section 1.
(2) B.O. 75–3, Section III.
(3) B.O. 75–2, Section 14.
(4) Travelers' Medicare Contract.
(5) Regulations—Part 200, General Administration.
(6) Regulations—Parts 202 and 301, Employers Under the Railroad Retirement Act and Railroad Unemployment Insurance Act.
(7) Regulations—Part 203, Employees Under the Act.
(8) Regulations—Part 255, Recovery of Overpayments.
(9) Regulations—Part 259.1, Initial Determinations with Respect to Employer and Employee Status.
(10) Regulations—Part 320, Initial Determinations Under the Railroad Unemployment Insurance Act and Review of and Appeals from Such Determinations.
(11) Regulations—Parts 320 and 340, Initial Determinations Under the Railroad Unemployment Insurance Act and Reviews of and Appeals from Such Determinations; Recovery of Benefits.

The entire meeting will be open to the public. The person to contact for more information is Beatrice Ezerski, Secretary to the Board, COM No. 312–751–4920, FTS No. 386–4920.

Dated: February 12, 1991.

Beatrice Ezerski,

Secretary to the Board.

[FR Doc. 91–3857 Filed 2–13–91; 2:05 pm]

BILLING CODE 7905–01–M

SECURITIES AND EXCHANGE COMMISSION

Agency Meetings

Notice is hereby given, pursuant to the provisions of the Government in the Sunshine Act, Pub. L. 94–409, that the Securities and Exchange Commission will hold the following meetings during the week of February 18, 1991.

A closed meeting will be held on Tuesday, February 19, 1991, at 2:30 p.m. An open meeting will be held on Wednesday, February 20, 1991, at 10:00 a.m., in Room 1C30.

The Commissioners, Counsel to the Commissioners, the Secretary to the Commission, and recording secretaries will attend the closed meeting. Certain staff members who have an interest in the matters may also be present.

The General Counsel of the Commission, or his designee, has certified that, in his opinion, one or more of the exemptions set forth in 5 U.S.C. 552b(c)(4), (8), (9)(A) and (10) and 17 CFR 200.402(a)(4), (8), (9)(i) and (10), permit considerations of the scheduled matters at a closed meeting.

Commissioner Schapiro, as duty officer, voted to considered the items listed for the closed meeting in closed session.

The subject matter of the closed meeting scheduled for Tuesday, February 19, 1991, at 2:30 p.m., will be:

Institution of injunctive actions.
Opinion.

The subject matter of the open meeting scheduled for Wednesday, February 20, 1991, at 10:00 a.m., will be:

1. Consideration of whether to issue a release which will adopt amendments to the net capital rule under the Securities Exchange Act of 1934. The net capital rule would be amended: to prohibit broker-dealers from making distributions of net capital over a certain amount to affiliated parties without first notifying the Commission; give the Commission the ability to restrict the withdrawal of capital from a broker-dealer in certain circumstances; and prohibit broker-dealers from withdrawing capital to benefit insiders of the firm at an earlier stage than is now permitted. For further information, please contact Roger G. Coffin at (202) 272–2396.

2. Consideration of an application of Wunsch Auction System, Inc. ("WASI"), filed pursuant to Section 5 of the Securities and Exchange Act of 1934 ("Act"), for an exemption from registration as a national securities exchange under Section 6 of the Act of both WASI and WASI's computerized, "single-price auction system ("Wunsch System"). For further information, please contact Gordon Fuller (202) 272–2414.

At times, changes in Commission priorities require alternations in the scheduling of meeting items. For further information and to ascertain what, if any, matters have been added, deleted or postponed, please contact: Paul Atkins at (202) 272–2000.

Dated: February 12, 1991.

Jonathan G. Katz,

Secretary.

[FR Doc. 91–3839 Filed 2–13–91; 8:45 am]

BILLING CODE 8010–01–M

Corrections

Federal Register
Vol. 56, No. 32
Friday, February 15, 1991

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF AGRICULTURE

Commodity Credit Corporation

7 CFR Part 1403

Debt Settlement Policies and Procedures

Correction

In rule document 91-89 beginning on page 359 in the issue of Friday, January 4, 1991, make the following corrections:

1. On page 359, in the second column, in the first line, "no" should read "not". In the fifth line from the bottom of the page, "ad" should read "and".

2. On the same page, in the third column, "distances" should read "instances".

BILLING CODE 1505-01-D

FARM CREDIT ADMINISTRATION

12 CFR Parts 614 and 619

RIN 3052-AB13

Loan Policies and Operations; Definitions; Lending Authorities, Appraisal Standards, Participations, and Lending Limits

Correction

In proposed rule document 91-1326 beginning on page 2452, in the issue of Wednesday, January 23, 1991, make the following corrections:

1. On page 2452, in the third column, in the second complete paragraph, in the third line from the end, "qualification" should read "qualifications".

2. On page 2454, in the 1st column, in the last paragraph, in the 10th line, "of" should read "or".

3. On the same page, in the second column, in the second complete paragraph, in the sixth line, "maybe" should read "may be".

4. On page 2456, in the 2nd column, in the 18th line, "normally" was misspelled. In the same column, in the last paragraph, in the second line "where" should read "were".

5. On page 2457, in the first column, in the third line, "§ 7.6" should read "section 7.6".

6. On the same page, in the second column, in the second complete paragraph, in the eighth line from the end, "FCS" was printed incorrectly.

7. On page 2458, in the second column, in the first complete paragraph, in the sixth line from the end, "of" should read "to".

8. On the same page, in the third column, in the first complete paragraph, in the eighth line from the end , after "is" insert "a".

9. On page 2459, in the third column,in the first complete paragraph, in the eighth line, "if" should read "of". In the same column, in the second complete paragraph, in the second line from the end, "warehouses" should read "warehousers".

10. On page 2461, in the 3rd column, in the 14th line, "encourage" should read "encourages".

11. On page 2464:

a. In the first column, in the heading for *B, "Limitations"* should read *"Limitation"*.

b. In the ninth line below the heading, "financing" should read "financings"

c. In the same paragraph, in the third line from the end, "obligation" should read "obligated".

d. In the second column, in the first complete paragraph, in the seventh line, "proposed" should read "reproposed"; and in the eight line, "lend" should read "lending".

e. In the third column, in the second complete paragraph, the second line should read, "allow any of the exclusions of existing".

f. In the same column, in the third paragraph, in the 11th line, "guarantee" should read "guarantees". In the same paragraph, in the fifth line from the end, "not" should read "no".

12. On page 2465, make the correction below:

a. In the first column, in the first complete paragraph, in the fifth line, "and" should read "or".

b. In the second column, in the second complete paragraph, in the first line, "regulations" should read "regulations".

c. In the same paragraph, in the second line from the top and the sixth line from the end, "primarily" should read "primary".

d. In the 3rd column, in the 10th line, "visibility" should read "viability".

13. On page 2467, in the first column, in the second complete paragraph, in the second line "enters" was misspelled.

§ 614.4000 [Corrected]

14. On page 2468, in the first column, in § 614.4000(e)(4), in the second line, "interests" should read "interest".

§ 614.4030 [Corrected]

15. On the same page, in the second column, in § 614.4030(c)(3), in the sixth line, *"only"*, should read "only".

§ 614.4240 [Corrected]

16. On page 2469, in the second column, in § 614.4240(m)(1), in the third line, "interest" should read "interests".

§ 614.4245 [Corrected]

17. On the same page, in the third column, in § 614.4245(a)(4), in the eighth line, remove the comma after "loan".

§ 614.4260 [Corrected]

18. On page 2470, in the third column, in § 614.4260(b)(2), in the seventh line, "appraisers" should read "appraisals".

§ 614.4225 [Corrected]

19. On page 2472, in the first column, in § 614.4325, in paragraph (c)(2), third line, and in paragraph (c)(3), in the second line, "interest" should read "interests". In paragraph (c)(4), in the last line, "territory" was misspelled.

20. In the second column, in paragraph (g)(3), "commerce" should read "commence".

§ 614.4352 [Corrected]

21. On page 2474, in the first column, in § 614.4352, in the second line from the end, "capital" was misspelled.

§ 614.4359 [Corrected]

22. On page 2475, in the first column, in § 614.4359(b), in the sixth line, "leading" should read "lending".

BILLING CODE 1505-01-D

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Resources and Administration

Rural Health Outreach Grant Program

Correction

In notice document 91-2851 beginning on page 5012 in the issue of Thursday, February 7, 1991, make the following corrections:

1. On page 5012, in the third column, in the fourth line from the bottom, "amont" should read "among".

2. On page 5013, in the first column, in the fifth line from the bottom, "$3000" should read "$300".

BILLING CODE 1505-01-D

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

21 CFR Parts 1301 and 1304

Definition and Exemption of Affiliated Practioners

Correction

In proposed rule document 91-2262, beginning on page 4181, in the issue of Monday, February 4, 1991, make the following correction:

On page 4181, in the 3d column, in the 2d full paragrah, in the 11th line insert "not" after "does".

BILLING CODE 1505-01-D

DEPARTMENT OF TRANSPORTATION

Coast Guard

33 CFR Part 151

[CGD 90-054]
RIN 2115-AD64

Pollution-Prevention Requirements of Annex V of MARPOL 73/78

Correction

In the issue of Tuesday, February 5, 1991, on page 4676, in the correction to proposed rule document 91-422 a portion of the text of correction number 2a was incorrect and is corrected as follows: a. Under **Discussion of Proposed Amendments**, in the fourth line "151.51" should read "§ § 151.51".

BILLING CODE 1505-01-D

federal register

Friday
February 15, 1991

Part II

Department of Agriculture

Animal and Plant Health Inspection Service

9 CFR Part 3

Animal Welfare; Standards; Final Rule

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

9 CFR Part 3

[Docket No. 90-218]

RIN: 0579-AA20

Animal Welfare; Standards

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Final rule.

SUMMARY: We are amending the regulations for the humane handling, care, treatment, and transportation of dogs and cats, and nonhuman primates, by a comprehensive revision and rewriting of those regulations. The effect of this action is to update the regulations, to make them more consistent with other Federal regulations concerning the handling, care, treatment, and transportation of these animals, and to carry out the requirements of the amendments to the Animal Welfare Act (7 U.S.C. 2131, *et seq.*), enacted December 23, 1985. Rewriting the regulations also makes them easier to understand, thereby increasing compliance and making them more effective.

EFFECTIVE DATE: This final rule shall become effective March 18, 1991. Plans for providing exercise of dogs in § 3.8 and for promoting the psychological well-being of nonhuman primates in § 3.81 must be implemented by August 14, 1991.

FOR FURTHER INFORMATION CONTACT: Dr. R. L. Crawford, Director, Animal Care Staff, Regulatory Enforcement and Animal Care, APHIS, USDA, room 565, Federal Building, 6505 Belcrest Road, Hyattsville, MD 20782, (301) 436-7833.

SUPPLEMENTARY INFORMATION:

Background

This final rule revises the regulations contained in 9 CFR, part 3, subparts A and D. It is the result of an intensive effort that began in 1985 when Congress amended the Animal Welfare Act (7 U.S.C. *et seq.*) (the Act) in Public Law 99-198, "The Food Security Act of 1985," and directed the Secretary of Agriculture to promulgate certain new relations governing the humane handling, care, treatment, and transportation of animals by dealers, research facilities, and exhibitors, including requirements for exercise of dogs and a physical environment adequate to promote the psychological well-being of nonhuman primates. The final rule reflects the many years of experience of the Animal and Plant Health Inspection Service (APHIS), United States Department of Agriculture (the Department) in enforcing the Act and the Animal Welfare regulations (the regulations). We considered many thousands of public comments in deciding upon the content of the final rule. Our ongoing consultation with the United States Department of Health and Human Services (HHS), as well as other Federal agencies concerned with animal welfare, also contributed significantly to determining how best to fulfill our statutory mandate.

Due to the length and complexity of this document, it is broken down into general headings and specific subheadings where appropriate, to assist the reader. The supplementary information begins with a brief history of this rulemaking. Following that are our response to the comments we received regarding our August 15, 1990, revised proposal, and the changes we are making based on those comments and our ongoing consultation with HHS. Lastly, we address the concerns raised in the public comment letters regarding our economic assessments of the cost of implementing the proposed regulations.

General Background and Statutory Information

The regulations are contained in title 9 of the Code of Federal Regulations, chapter I, subchapter A, parts 1, 2, and 3. Part I provides definitions of the terms used in parts 2 and 3. Part 2 sets forth the administrative and institutional responsibilities of regulated persons under the Act. Part 3 provides specifications for the humane handling, care, treatment, and transportation, by regulated entities, of animals covered by the Act. Subpart A of part 3 contains the regulations concerning dogs and cats; subpart B contains the regulations concerning guinea pigs and hamsters; subpart C contains the regulations concerning rabbits; subpart D contains the regulations concerning nonhuman primates; subpart E contains the regulations concerning marine mammals; and subpart F contains the regulations concerning other warmblooded animals regulated under the Act. APHIS issues and enforces the regulations, under authority of the Act, as amended.

On December 23, 1985, extensive amendments to the Act were enacted (see Pub. L. 99-198, "The Food Security Act of 1985."). Among other things, the Act directs the Secretary of Agriculture to promulgate standards to govern the humane handling, care, treatment, and transportation of animals by dealers, research facilities, and exhibitors, for exercise of dogs, and for a physical environment adequate to promote the psychological well-being of nonhuman primates. In order to comply with the amendments to the Act, APHIS published revisions of parts 1 and 2, and a proposal and a revised proposal to amend part 3, as discussed below.

Proposals to amend parts 1 and 2 of the regulations were published in the **Federal Register** on March 31, 1987 (52 FR 10292-10298, Docket No. 84-027, and 52 FR 10298-10322, Docket No. 84-010, respectively). We solicited comments for a 60-day period, ending June 1, 1987. The comment period was twice extended, ending on August 27, 1987. We received 7,856 comments, many of which stated that it was difficult to comment upon the proposals to amend parts 1 and 2 independently of our proposal to amend the standards in part 3. In response to comments, we published revised proposals on parts 1 and 2, along with a proposed rule to amend subparts A, B, C, and D of part 3, on March 15, 1989 (54 FR 10822-10835, Docket No. 88-013; 54 FR 10835-10897, Docket No. 88-014; and 54 FR 10897-10954, Docket No. 87-004, respectively).

We solicited comments on the interrelationship of parts 1 and 2 with part 3 for a 60-day period, ending May 15, 1989. Approximately 5,600 comments, received or postmarked by that date, were considered in preparing final rules for parts 1 and 2. (Any that also pertained to part 3 were considered as responding to the proposal to amend part 3.) The final rules to amend parts 1 and 2 were published in the **Federal Register** on August 31, 1989 (54 FR 36112-36123, Docket No. 89-130, and 54 FR 36123-36163, Docket No. 89-131, respectively).

Most of our proposal with regard to part 3 dealt with revisions to the standards, based on our experience enforcing the regulations. We also proposed certain significant additions to the regulations, based on our mandate under the 1985 amendments to the Act. For example, we made significant additions to the regulations regarding the exercise of dogs and regarding a physical environment necessary to promote the psychological well-being of nonhuman primates. We solicited comments on the proposal to amend part 3 to be made for a 120-day period, ending July 13, 1989. A total of 10,686 comments were received in time to be considered. Included among the recommendations we received in response to the proposed rule were those submitted by HHS, with whom we continued our ongoing consultation. Of the total number of comments received,

the overwhelming majority were in response to our proposed changes regarding subparts A and D.

Upon review of the comments regarding subparts B and C, we determined that, in general, our proposed revisions of those subparts were appropriate, with some minor modifications. On July 16, 1990, we published a document making final the proposed amendments to part 3 that pertain to subparts B and C (55 FR 28879–28884, Docket No. 89–175). However, due to the nature of the comments received in response to our proposed amendments regarding subparts A and D, and as a result of our ongoing consultations with other Federal agencies, we made certain major modifications to our March 15, 1989, proposal, and issued a revised proposal regarding those subparts on August 15, 1990 (55 FR 33448–33531, Docket No. 90–040).

We received a total of 11,932 comments in response to our revised proposal in time to be considered. Of the comments received, 509 were from dealers and exhibitors, 1,372 were from the research community, and 10,051 were from members of the general public. We included comments received from humane societies and groups representing the public in the areas of animal welfare and animal rights with comments from the general public.

Comments raising objections or suggesting changes to the revised proposal are discussed below in this supplementary information. Subheadings are provided in the supplementary information to guide the reader through the material. Section numbers are used in the subheadings wherever possible to further assist the reader. We have made a number of changes to our August 15, 1990, proposal in this final rule. Those changes are explained in the supplementary information below. The remaining provisions of our proposal are necessary to ensure the health and well-being of the animals in question, and we have included these remaining provisions in this final rule, except to make certain nonsubstantive wording changes for clarification.

In our discussion of the comments received, we use the term "proposed" or "proposal" when referring to the August 15, 1990, revised proposal. We use the term "original proposal" when referring to the March 15, 1989 proposal. When referring to the regulations in 9 CFR part 3 prior to the effective date of this final rule, we refer to the "existing regulations."

General Comments

A large number of commenters expressed general support for the proposed provisions, and for more stringent regulations in general. A large number of commenters supported the proposed provisions that would establish requirements for increased space for animals. Many commenters also supported exercise for laboratory animals. A small number of commenters supported those provisions that they said would not interfere with research.

Conversely, very many commenters opposed the proposal in general. Many of these stated in general that the provisions that represented revisions to our March 15, 1989 proposal were unacceptable. A number of commenters stated generally that the proposal should be rewritten. A number of commenters expressed opposition to more stringent regulations. Many commenters recommended that no changes be made to the existing regulations. A number of commenters asserted that the proposed regulations go beyond ensuring the humane care and use of animals. Some of these commenters stated that the proposed standards exceed statutory authority and are inconsistent with Congressional intent. In this final rule, APHIS's statutory authority for the proposed regulatory amendments is set forth in the supplementary information, under the headings "General Background and Statutory Information" and "Statutory Authority for This Final Rule." Based on the statutory authority set forth, we believe ample authority exists for this rule.

A large number of commenters stated that the involvement of other Federal agencies in the rulemaking process is resulting in weaker animal welfare regulations. We do not agree that the regulations are being weakened. On the contrary, this final rule contains a significant number of provisions that are more stringent than those in the existing regulations. Additionally, two significant areas in the proposal—the exercise of dogs and the psychological well-being of nonhuman primates—are not in the existing regulations.

A number of commenters opposed in general what they considered the weakening of our original proposal in the revised proposal. We do not agree that the revised proposal represents a weakening of our original proposal. We gauge the strength of the animal welfare regulations by how well they effectuate the humane handling, care, treatment, and transportation of the animals in question. Our goal is to accomplish this end in the most reasonable and efficient way possible. We expect the provisions in this revised rule to attain the same ultimate goal as those in the proposed rule.

Many commenters stated that they favored more specific, rather than general standards. Of those favoring more specific standards, many expressed opposition to "performance standards," as contrasted with "engineering standards." Conversely, very many commenters stated that they were in favor of replacing engineering standards with performance standards. A small number of commenters asserted that including rigid engineering standards in the proposed regulations was contrary to the directives of Executive Order No. 12498. Many commenters stated that the proposed standards would interfere with research due to their rigidity and specificity, and would not allow the flexibility and innovations necessary for the optimal care and treatment of animals. Many commenters stated that rigid engineering standards are not suitable for regulating a wide range of facilities, interfere with professional judgment, rapidly become obsolete, and are not scientifically justified. In developing the proposed rule, we relied on our experience enforcing the regulations, on our scientific expertise, on information supplied by other Federal agencies, on research data regarding animal behavior, and on other information submitted by the public. Our goal was to establish regulations that would both promote the well-being of the animals in question and be enforceable. We did not consider it appropriate to couch all the proposed regulations either in the form of performance standards or engineering standards. In formulating the proposal, we attempted to identify those areas where variations in circumstances and animal behavior would make very specific standards less effective in promoting animal welfare than broader, goal-oriented standards. In those areas, we proposed to allow for flexibility in how the goal would be reached. In other areas, we determined that the needs of most of the animals housed, handled, or transported together were so similar that specific uniform standards were more appropriate, both for enforceability and for the well-being of the animals. Even in those areas, however, we recognized that in some cases the same specific requirements would not be appropriate for every animal involved. To accommodate these exceptions, we provided in many cases for professional discretion by the attending veterinarian. We believe that the provisions in this final rule represent

a practical and enforceable blend of performance and engineering standards.

Many commenters stated that Congressional intent regarding the Act was for APHIS to avoid the use of performance standards. These commenters referred to correspondence between certain members of Congress and the United States Office of Management and Budget, in which the members of Congress urged that specific standards be adopted. We are aware of the correspondence referred to, and do not agree that it fully represents Congressional intent. On the contrary, the Congressional Conference Report on the Fiscal Year 1991 Agricultural Appropriations Bill contains the following language: "The conferees expect the Animal and Plant Health Inspection Service to incorporate performance based standards into its regulations when such performance based standards would not interfere with the establishment of a minimal level of care or the enforceability of the Act as Congress intended." As discussed above, we have therefore incorporated performance based standards where we considered them appropriate.

A number of commenters stated that researchers do not have the expertise to assess performance standards. We do not share the commenters' concern. The standards set forth in the proposal clearly state the ends that must be achieved. The regulated facilities, and not any particular researchers, is responsible for achieving these ends. We are confident each facility has or has access to the professional expertise adequate to ensure compliance with the regulations.

One commenter stated that the National Institutes of Health (NIH) Guide for the Care and Use of Laboratory Animals (Guide) must not be used as a minimum regulatory standard. Several commenters stated that it is not scientifically valid to adopt as Federal regulations all of the elements currently proposed to be adopted from the NIH Guide. Conversely, a large number of commenters stated that they concurred with coordination between certain provisions of the regulations and the NIH Guide. Section 15(a) of the Act requires that the Secretary of Agriculture consult and cooperate with other Federal agencies in establishing standards, and consult with the Secretary of HHS before issuing regulations (7 U.S.C. 2145(a)). However, notwithstanding our obligation to consult, we are mindful that Congress has entrusted the Department with the responsibility for establishing minimum requirements to carry out the Act's purposes, and for administering the Act because of our expertise in animal welfare matters. In the entire proposal, several areas contained provisions that paralleled those in the NIH Guide. In those cases, in fulfilling our responsibility to set forth regulations providing for animal welfare, we were also able to set forth regulations that harmonized with the NIH Guide.

One commenter stated that the proposed rulemaking would radically alter established Public Health Service/NIH policies. We disagree. The Public Health Service issues their Guidelines independent of our statutory mandate. This rule concerns the implementation of the Animal Welfare Act, for which the Secretary of Agriculture is responsible. In developing the proposed rule, we carried out our statutory obligation to consult with HHS. The consultations we conducted with that Department were comprehensive and intensive. A representative from the National Institutes of Health worked closely with APHIS to provide the HHS position on all issues affecting the research community. Through this consultation, we achieved what we understand to be a mutually satisfactory document. Based on our ongoing communication with HHS, that it can be readily implemented by the research community.

A number of commenters stated that the proposal was not stringent enough to meet the intent of Congress. We disagree. The intent of Congress was to provide for the enhanced well-being of the animals covered under the Act, and in particular to provide for the exercise needs of dogs and to promote the psychological well-being of nonhuman primates. Congress has provided the Department the authority to develop regulations to promote animal welfare. We believe the standards in this final rule provide the flexibility to accommodate varying conditions and procedures, while still providing the opportunity for exercise of dogs and an environment to promote the psychological well-being of nonhuman primates. In certain cases, based on information supplied by the public, we have made modifications to our proposal to promote better the well-being of the animals covered by the Act and the regulations.

A number of commenters stated that the proposed regulations are not supported by scientific documentation, that they are arbitrary and capricious, and that they provide no evidence either that the existing standards are inadequate or that the proposed standards will be of benefit to the animals' welfare. A number of commenters recommended that the proposal be rewritten to reflect available scientific information and current professional consensus. A smaller number of commenters expressed the opinion that APHIS does not have the technical competence to promulgate the proposed standards. The proposal we published was the result of a Congressional mandate to establish standards to provide for the exercise of dogs and for the psychological well-being of nonhuman primates, as well as the result of changes to the regulations that we considered appropriate based on over 20 years of enforcing those regulations. As noted above, in 1989 we published an initial proposal to amend and expand the regulations. We invited public comment on that proposal, soliciting whatever scientific data was available. Based on the information we received, and on our ongoing consultation with other Federal agencies, we made a number of significant modifications to that initial proposal. The basis for these changes was discussed in the preamble of the revised proposal that we published August 15, 1990. In that revised proposal, we again invited research data and other public comment. We have carefully reviewed all of the data and other information submitted to us, and, based on that information, have made certain modifications in this final rule. The basis for these modifications is discussed in the supplementary information of this final rule.

A small number of commenters recommended that separate standards be established for research, dealer, and exhibitor facilities. As we discussed in our proposal, while provisions do exist in the regulations to ensure that the standards in part 3 do not interfere with approved research, in general we do not believe that separate standards for different types of facilities are appropriate. The Act requires that we establish minimum standards for the humane care and well-being of animals. The fact that the standards we proposed are minimum assures that they will be adequate for each type of facility.

A large number of commenters stated in general that the scientific community is highly motivated to maintain the best possible laboratory animal care, because it is essential for humane reasons and to ensure productivity and accuracy. As discussed in the proposal, we agree that humane treatment of animals used in research promotes the well-being of the animals and the research value of the activities

conducted. The standards set forth in part 3 of the regulations are minimum standards necessary for the well-being of animals housed, held, or maintained at any of the various categories of regulated entities. We encourage and applaud treatment of animals according to standards in excess of the minimum. However, as discussed above, we do not consider it appropriate or warranted to establish a separate set of standards for each type of regulated entity, as was suggested by these commenters.

Many commenters stated that the proposed regulations contain too many "loopholes" that allow facilities to interpret or circumvent standards, even though this is what Congress intended to avoid with its 1985 amendments to the Act. A small number of commenters stated that APHIS should not allow any exemptions from the regulations, even if approved by the Institutional Animal Care and Use Committee (Committee) at research facilities. We disagree. Throughout this rulemaking process, we have remained cognizant that section 13(a)(6) of the Act prohibits the Secretary from interfering with research design or the performance of actual research. Accordingly, the regulations provide research facilities with exceptions from the standards in part 3, when such exceptions are specified and justified in the proposal to conduct the activity. This provision is clearly set forth in part 2 of the regulations, and we do not agree, as one commenter recommended, that a similar provision is necessary as preface to part 3.

On the other hand, a number of commenters stated that APHIS exceeded statutory authority and Congressional intent by proposing regulations that interfere with research facilities' right to determine whether an activity is to be considered as a part of the performance of research. We disagree. These regulations are consistent with the Act's requirement that our regulations do not interfere with the design or performance of research.

One commenter asked that we clarify which provisions could be departed from if approved in a research protocol, and which need to be adhered to in every case. The Act is clear on this issue. No provision in the regulations is to interfere with research that is part of an approved protocol.

A large number of commenters addressed the issue of primary enclosure size. Of those discussing primary enclosures, many supported the areas where our proposed provisions coincided with the NIH Guide. Very many commenters supported in general larger cages for animals. Many commenters stated that the minimum space requirements set forth in the proposal were insufficient. Based both on our experience enforcing the regulations and on animal research, we disagree that the minimum space requirements we proposed are insufficient. In the case of each of the animals whose treatment is regulated under subparts A and D—cats, dogs, and nonhuman primates—the specific minimum space requirements are at least as stringent as those in the existing regulations. In the case of cats, we have increased the space requirements from the existing regulations. In the case of dogs, we have maintained the existing floor space requirements for most dogs, have increased the space requirements for certain dogs, and have added height requirements. In the case of nonhuman primates, we have set forth space requirements that in effect closely parallel those in the existing regulations, and that in certain cases exceed the requirements in the existing regulations. In all cases, notwithstanding the specific primary enclosure dimensions required by the proposal, the regulations would require that the animal be able to move in a normal manner.

Several commenters stated generally that the proposed regulations would unduly restrict the exercise of professional judgment by the attending veterinarian and other laboratory animal professionals. We recognize that under certain circumstances, specific uniform requirements will not be most effective in promoting the well-being of all animals involved. To accommodate such situations, we have, in many cases, provided for discretion on the part of the attending veterinarian. We therefore disagree with the commenters that the provisions of this final rule will unduly restrict professional judgment.

Many commenters stated generally that the proposed regulations would have an adverse effect on animal welfare. We disagree. The regulations set forth in this final rule include the addition of certain requirements for the well-being of animals, as mandated by Congress, and amendments to the existing regulations that we consider necessary to improve animal care. We consider this final rule to be an improvement over the existing regulations.

A large number of commenters expressed concern that the proposed regulations would be unenforceable, given the current number of inspectors employed by the Department. We are making no changes based on these comments. In developing the proposed regulations, we were cognizant of the demands they would make on Department personnel, and are confident that the proposed provisions are workable and enforceable. Beyond that, we believe that they are necessary to enable us to meet our Congressional mandate to promote and protect the well-being of the animals covered under the Act.

Many commenters stated more specifically that the Department would have difficulty enforcing the provisions regarding exercise requirements for dogs and the promotion of the psychological well-being of nonhuman primates. We disagree. Those particular areas of the regulations require facilities to develop plans for meeting the respective needs of dogs and/or nonhuman primates. In enforcing the regulations, an inspector will visually inspect the animals and the facility, and will review the required plans, as well as records of any exemptions for specific animals, to verify what he or she observes. Development of the plans will require involvement of the attending veterinarian, and in the case of research facilities, the Committee. We are confident that such professional involvement, combined with inspections by the Department, will be of greater benefit to the animals involved than rigid, across-the-board standards that do not take into account varying conditions and procedures.

One commenter stated that the attending veterinarian should have greater discretion in the formulation of animal care plans, and that all veterinarians should be board-certified. The regulations require that the attending veterinarian have knowledge of the species to be maintained at a facility. Additional requirements would be at the discretion of the facility.

One commenter stated that the regulations as proposed allow for too much "professional judgment" on the part of the attending veterinarian. The commenters questioned whether all veterinarians would have the integrity necessary to make sound professional judgments. Under the regulations, the attending veterinarian is responsible to the facility, which is responsible for compliance with the regulations. The facility is therefore dependent on the attending veterinarian's sound judgment to remain in compliance. Additionally, all decisions made by attending veterinarians will be subject to review by APHIS inspectors.

A large number of commenters stated that requirements for exercise of dogs and social interaction of primates must be spelled out clearly. We consider the requirements referred to be set forth clearly in our proposal. It is clear what ends are to be achieved. However, we

do not consider it in the best interests of individual animals, many with differing needs, to restrict all facilities to the same specific set of procedures in achieving those ends.

In certain provisions in the regulations, the standards allow for adherence to "generally accepted practices." A small number of commenters stated that this term is vague, and that inspectors will be unable to evaluate whether a facility is in compliance. We disagree. Department inspectors are professional veterinary medical officers or animal health technicians, and are well trained in, and able to evaluate what constitute, generally accepted practices. A number of commenters stated that customary and generally accepted practices were precisely what Congress was objecting to when it required that the regulations be amended. We disagree with the general statement that generally accepted practices are harmful to animals. We particularly disagree with the allegation that accepted professional veterinary practices are inadequate. Even in the absence of Federal regulations regarding animal care, the veterinary profession adheres to its own professional standards to ensure the well-being of the animals it attends to. The changes that Congress mandated in the 1985 amendments to the Act were for the most part additions, not amendments, to the existing regulations. These additions, specifically relating to exercise for dogs and the psychological well-being of non-human primates, have been included in the regulations in such a way as to allow for the diversity of needs among species, breeds, individual animals, and conditions. A more rigid, inflexible approach could actually prove injurious to the animals.

A large number of commenters stated that facilities need to be able to establish their own performance standards, so that a facility can ensure adequate animal care and can accommodate special institutional needs and circumstances. Conversely, a number of commenters stated that the Department is illegally delegating its statutory duty to issue regulations to those being regulated. We disagree that the Department is inappropriately delegating its authority. Through the regulations set forth in this final rule, we are establishing standards for the exercise of dogs and the psychological well-being of nonhuman primates. Under the regulations, facilities are authorized only to develop specific procedures for meeting the standards.

One commenter stated that any plans or standard operating procedures developed by a Committee to comply with the regulations should be required to be submitted for Department approval. Under the regulations, such plans will be subject to review by Department inspectors. We therefore do not consider it necessary to require their submission for approval prior to implementation.

The regulations as proposed provided in certain cases for written documentation by facilities of procedures and exemptions. A number of commenters questioned whether APHIS would retain copies of this documentation. The commenters expressed concern that if APHIS took possession of copies, that information would then be available to the public under the Freedom of Information Act. According to the commenters, this would both allow competitors access to information associated with research, and provide potential terrorists with information regarding facilities. As a general rule, the written documentation required by the regulations will be inspected by APHIS at the facility, and will not be copied or removed. However, APHIS will have the option of removing such documentation if removal is necessary to carry out enforcement procedures.

One commenter recommended that the general public and any veterinarian be permitted access to records of research facilities to assist APHIS in monitoring these sites for compliance. Under the Act, enforcement is restricted to Department employees, and may not be delegated to members of the public.

A number of commenters stated that the proposed regulations would burden research facilities with unnecessary paperwork. On the other hand, a large number of other commenters opposed the elimination in the revised proposal of any recordkeeping requirements that appeared in the original proposal. One commenter called for daily or weekly documentation by facilities of compliance with the regulations. A number of other commenters stated that the proposed standards for laboratory animals were carefully drawn to avoid unnecessary paperwork. Under the Paperwork Reduction Act, we are required to minimize the paperwork burden on the public, consistent with the proper performance of our responsibilities under the Act. Cognizant of this obligation, we developed the proposed regulations with the goal of reducing paperwork requirements as much as possible, while still retaining the ability to document adequately conditions for enforcement purposes. Eliminating documentation requirements entirely would in certain areas hinder our ability to carry out our mandate to promote and enforce the welfare of animals covered under the Act. The recordkeeping and reporting requirements in this final rule represent what we consider the minimum necessary to enable us to enforce the regulations adequately.

Some commenters stated that the proposed regulations would eliminate the transport of animals by air. However, the commenters did not supply data to support these assertions. The purpose of amending the regulations is to help ensure the health and well-being of dogs and cats. In the absence of data indicating that other factors should override specific measures proposed to achieve this goal, we are making no changes to our proposal based on these comments.

A small number of commenters stated that the regulations should differentiate clearly between standards for transportation of shipped animals, and those traveling with passengers. With regard to carriers and intermediate handlers, the regulations specify that animals are covered by the regulations when "accepted" by those entities for transport. If these animals are in the possession of individuals in passenger areas, they are not subject to the regulations. Several commenters stated that the transportation standards should be clarified as to "transport in commerce" and "transport between buildings." We do not consider such a distinction necessary. Regulated animals must be handled in compliance with the standards at all times.

Several commenters stated generally that the proposed standards would result in an increased risk of disease and injury to both humans and animals. We believe that the proposed regulations should pose little increased risk if proper medical, health, husbandry, and safety procedures are followed. Whatever risk might exist will be minimized by the provisions in this final rule that allow for professional judgment as to the health and safety needs of individual animals, breeds, and species.

A small number of commenters stated that standards for temperature ranges should be as uniform as possible throughout the regulations to avoid confusion. In many areas in this final rule, based on information we received from the public, we have made changes to standardize allowable temperature ranges. These changes are discussed in the supplementary information of this final rule. One commenter recommended that all temperature and humidity

standards be deleted from the regulations, and be replaced with general performance standards. We disagree with the commenter with regard to temperature requirements. Although the needs and tolerances of individual animals allow for some variation in acceptable temperature levels, certain upper and lower limits exist that are applicable to animals in general. With regard to humidity, the regulations as proposed already provide for professional discretion in determining appropriate humidity levels.

A number of commenters stated that environmental and temperature standards for animals should be similar to human standards until comfort indices for various species can be established. We disagree with the commenters. Differences among species do not allow for accurate cross-species comparisons.

One commenter stated that allowing for flexibility or innovation, as provided in certain cases in the regulations, is inappropriate when dealing with minimum standards. We disagree. The regulations include minimum standards, as required by law. In allowing for flexibility and innovation, we are simply allowing regulated entities some latitude in determining how to satisfy those minimum requirements.

One commenter stated that the regulations would create an adversarial relationship between veterinarians and researchers. Several commenters stated that under the proposed regulations, the attending veterinarian and Committee would become an enforcement agent of APHIS, which is not authorized by the Act. One commenter opposed the involvement of the Committee in the approval of procedures, because, according to the commenter, this usurps management's role and exceeds APHIS's statutory authority. Under the regulations, the research facility is responsible for ensuring that the regulations are met. Under the regulations, the attending veterinarian and the Committee are to provide professional judgment to the facility. We do not consider this an adversarial relationship, nor do we consider it as delegating enforcement authority to either the attending veterinarian or the Committee.

A small number of commenters stated that many of the proposed provisions would be used to eliminate animals from biomedical research. As we discussed in our proposal, history does not support such an assertion. Concerns regarding the elimination of animals from research were raised in 1966 and 1967 when the Act was first enacted and regulations were promulgated to implement it. To the contrary, however, tremendous advances in human and animal health have been made possible through continued support for biomedical research. In enacting the 1985 amendments to the Act, Congress specifically found that the use of animals is instrumental in certain research and education (7 U.S.C. 2131(b)). We believe that the provisions of this rule will effectuate the intent of Congress without imposing an unnecessary, unreasonable, or unjustified financial burden.

Several commenters expressed concern that the proposed regulations would discourage young people from entering medical research fields. We disagree. We believe that greater concern for the humane care and use of animals may in fact encourage new scientists and foster greater support for biomedical research throughout our society.

One commenter stated that the phrasing of the proposed regulations indicated application to non-animal areas. In certain cases, such as housekeeping standards, application to non-animal areas was intentional, because the condition of a premises can have an impact on the animals housed at the facility. In certain other cases, such as temperature requirements in housing facilities, qualifying language is included to make it clear that the standards need be met only when animals are present. We believe that the remainder of the proposed provisions express their intent clearly as to which areas of a facility, conveyance, or operation would be affected.

Several commenters recommended that the proposed regulations include an index to allow easier retrieval of information. We do not believe it is necessary to include an index in the regulations. Each of the subparts designates the types of animals it covers. Within each subpart, the contents of each section are indicated by a section heading. These headings are set forth in a table of contents at the beginning of each subpart. We believe that this format provides adequate reference to the contents of the regulations.

Several commenters requested that, in developing a final rule, the Department consider all comments received on previous proposed standards, as well as those received on our most recent proposal. We take seriously our responsibility under the Administrative Procedure Act to consider each comment timely received in response to proposed rulemaking. Accordingly, we have reviewed all such comments in the process of developing and modifying the rulemaking that is culminating in this final rule.

One commenter stated that all pet animal businesses should be covered by the regulations. The regulations in subparts A and D apply to those entities specified under the Act as being subject to its provisions. Under the Act, certain retail stores that sell pet animals are subject to the Act and the regulations. Other commenters stated that humane societies, animals rights organizations, and other special interest groups should be subject to the regulations. Such entities are not specified under the Act as being subject to its provisions, and therefore are not subject to the regulations unless they also act as dealers, exhibitors, research facilities, intermediate handlers, or carriers.

Several commenters stated either that the proposed regulations were written in a manner not understandable by the general public, thereby making comments on them difficult, if not impossible, or that the regulations should be reformatted or rewritten to improve their clarity. Based on the great number of comments we received addressing both specific and general provisions set forth in the proposal, we believe that in general the public found the proposed provisions understandable.

Effective Dates

A large number of commenters addressed the issue of when the regulations should become effective. Several commenters expressed the opinion that the Department is obligated to make the amended regulations effective upon publication of this final rule. One commenter stated that the Department has already exceeded the time during which it was legally obligated to establish new regulations. Many more commenters called for a delay in the effective date, in order to allow time for adequate planning and financing. The commenters requesting a delay recommended that the regulations, particularly those provisions regarding minimum space requirements, become effective from 1 to 5 years after publication. A small number of commenters requested that primary enclosure space requirements be "grandfathered" in, to allow use of existing primary enclosures that are not in compliance with the new standards, until those enclosures would otherwise need replacement.

We disagree that the Department has illegally delayed publication of this final rule. On the contrary, the Department has diligently pursued the promulgation of these regulations with as much speed as their complexity allows. We are

keenly aware of the economic impact these amended regulations will have on regulated entities. However, we are obligated to establish standards to promote the well-being of the animals protected by the Act, notwithstanding the fact that expenses will be incurred by regulated facilities in complying with the regulations. We are also aware of our obligation under Executive Order 12291 to minimize the economic impact of these rules on affected entities. In recognition of this responsibility, and of the practical delays that will necessarily be associated with complying with certain of the new requirements, we are providing that the facility plans for providing exercise of dogs, and for promoting the psychological well-being of nonhuman primates, must be developed and implemented within 180 days of the publication date of this final rule.

Many commenters pointed out that several of the new requirements would require affected facilities to make extensive structurally related changes in order to be able to comply with the new regulations. We believe those comments are well-founded and, therefore, in order to allow affected facilities the time necessary to make such changes, we are providing in this rule that regulated persons have until February 15, 1994, to comply with a few, specific provisions. These provisions appear in this rule in the following places:

1. Section 3.6(b)(1)(ii)(A) through § 3.6(b)(1)(ii)(C) (redesignated from § 3.6(b)(1)(i) through § 3.6(b)(1)(iii) in the proposed rule), regarding minimum space requirements for primary enclosures containing cats;

2. Section 3.6(c)(1)(iii), regarding height requirements for primary enclosures containing dogs;

3. Section 3.6(c)(2)(ii) (redesignated from § 3.6(c)(2) in the proposed rule), regarding perimeter fences surrounding dogs kept on tethers;

4. Section 3.77(f), regarding perimeter fences surrounding nonhuman primates housed at sheltered housing facilities;

5. Section 3.78(d), regarding perimeter fences surrounding nonhuman primates housed at outdoor housing facilities; and

6. Section 3.80(b)(2)(i) through § 3.80(b)(2)(iv) (redesignated from § 3.80(b)(1), § 3.80(b)(2), § 3.80(b)(4), and § 3.80(b)(5), respectively, in the proposed rule), regarding minimum space requirements for primary enclosures containing nonhuman primates.

Because this new rule replaces the current standards, we are providing in this rule that, where standards currently exist with regard to the provisions listed above, those existing standards must be complied with during the period prior to February 15, 1994. This will enable us to maintain the standards necessary for the well-being of those animals whose care will be affected by the need for structural changes. Although we are providing additional time to comply with those new standards that require extensive structural changes, it is nevertheless our intent to encourage facilities to make those changes and come into compliance with the new standards as soon as possible.

Subpart A—Dogs and Cats

Regulations for humane handling, care, treatment, and transportation of dogs and cats are contained in 9 CFR part 3, subpart A. These regulations include minimum standards for handling, housing, feeding, watering, sanitation, ventilation, shelter from extremes of weather and temperature, veterinary care, and transportation.

It should be noted that the regulations, as discussed in this final rule, apply only to live dogs and cats. In our August 15, 1990, proposal, we proposed to revise and rewrite the existing regulations based on our experience administering them. We also proposed to amend our regulations to add requirements for the exercise of dogs. This is specifically required by the 1985 amendments to the Act. (See 1752, 99 Stat. 1645, Pub. L. 99–198, amending section 13 of the Act). We discuss below each topic covered in our proposal.

Several commenters recommended that adequate provisions for exercise and socialization be provided for cats as well as dogs. As we discussed in our proposal, one of our specific obligations under the 1985 amendments to the Act was to establish requirements for the exercise of dogs. In response to that mandate, we included such provisions in our proposal. However, the Act does not specifically require that we establish exercise requirements for cats, and based on the information we have reviewed, we do not feel it is necessary or appropriate to require exercise and socialization for cats.

Housing Facilities and Operating Standards

Existing §§ 3.1 through 3.3 provide requirements for facilities used to house dogs and cats. Existing § 3.1, "Facilities, general," contains regulations pertaining to housing facilities of any kind. It is followed by existing § 3.2, "Facilities, indoor," and § 3.3, "Facilities, outdoor." In our proposed rule, we proposed to amend these sections to provide for an environment that better promotes the health, comfort, and well-being of dogs and cats. We also proposed to add sections that provide regulations specifically governing two other types of facilities used to house dogs and cats—sheltered housing facilities, and mobile or traveling housing facilities. The term "sheltered housing facility" is defined in part 1 of the regulations as "A housing facility which provides the animals with shelter; protection from the elements; and protection from temperature extremes at all times. A sheltered housing facility may consist of runs or pens totally enclosed in a barn or building, or of connecting inside/outside runs or pens with the inside pens in a totally enclosed building." The term "mobile or traveling housing facility," also included in part 1, is defined as "a transporting vehicle such as a truck, trailer, or railway car, used to house animals while traveling for exhibition or public education purposes."

Some of the regulations we proposed for housing facilities are applicable to housing facilities of any kind. As in the existing regulations, we proposed to include these standards of general applicability in one section, proposed § 3.1, that would also include many of the provisions in existing § 3.1. Additionally, we proposed amendments to the existing regulations that are specific to particular types of housing facilities, and included those provisions in separate sections of the proposed regulations. In some cases where the existing regulations would have been unchanged in substance, we made wording changes to clarify the intent of the regulations.

Several commenters recommended that we require that housing facilities comply with Federal, State, and local laws and regulations relating to housing facilities for dogs and cats, so as to allow uniform enforcement by various jurisdictions. We are making no changes based on these comments. We are authorized under the Act to establish minimum standards for animal welfare. This mandate is different than those under other Federal, State, and local laws.

One commenter requested that we combine the provisions regarding sheltered housing facilities and outdoor housing facilities to avoid confusion over which is which. As defined in part 1 of the regulations, sheltered and outdoor housing facilities are two distinct types of facilities. Because of the differences between the two, we consider separate regulations necessary for each.

Housing Facilities, General

Housing Facilities; Structure; Construction—Section 3.1(a)

We proposed in § 3.1(a) to require that housing facilities for dogs and cats be designed and constructed so that they are structurally sound. We proposed that they must be kept in good repair, and that they must protect the animals from injury, contain the animals securely, and restrict other animals and unauthorized humans from entering. A small number of commenters specifically supported these provisions as written. A large number of commenters addressed the issue of restricting the entrance of unauthorized humans, stating that the responsibility for maintaining adequate security at a facility belongs to the facility, and not to the Department of Agriculture. Others were concerned that, even if the facility made reasonable efforts to prevent the entry of unauthorized humans, the facility would still be liable for the entry of trespassing individuals. Because, unlike nonhuman predators and pests, it may be virtually impossible to prevent the unauthorized entry of humans, it will not be a violation of these regulations for facilities to fail to prevent such entry. In this final rule, we are therefore removing the requirement, as proposed in §§ 3.1 (a) and (b), that facilities restrict the entry of unauthorized humans.

A small number of commenters stated that the provision that facilities restrict the entry of other animals was unnecessarily stringent. One commenter stated that reasonable efforts to comply with this provision should be sufficient. Others requested clarification of the definition of "other animals." We continue to believe that the provision is adequate as written. Unlike the forced entry of unauthorized humans, entry by other animals can be prevented by structural safeguards. Our implicit intent in requiring that other animals be restricted from entering the facility was to bar the entry of animals that could be detrimental to the health and well-being of the animals housed at the facility.

One commenter recommended that facilities be required only to reasonably protect animals from injury. We are making no changes based on this comment. We do not consider it unreasonable to require facilities registered or licensed under the Act to ensure the well-being of the animals in their custody.

Housing Facilities: Condition and Site—Section 3.1(b)

In proposed § 3.1(b), we proposed to add the requirement that a dealer's or exhibitor's housing facilities be physically separated from any other business. When more than one entity maintains facilities on the premises, the increased traffic, equipment, and materials in proximity to the animals can be detrimental to the animals' well-being. Also, in cases where more than one entity maintains animals on a premises, it can be difficult to determine which entity is responsible for which animals and for the overall conditions. To avoid this difficulty, we proposed to require that housing facilities other than those maintained by research facilities and Federal research facilities be separated from other businesses. We did not propose to impose this requirement on research facilities, because they are often part of a larger sponsoring establishment, such as a university or pharmaceutical company, and responsibility for animal and site conditions rests with that establishment. Therefore, we have not encountered the enforcement difficulties noted above with respect to research facilities.

One commenter specifically supported these provisions as written. Several commenters recommended that we require that all holding facilities and broker operations be operated in a building separate from the owner's dwelling or living quarters, with the exception of administrative offices. We do not consider the location of a licensee's dwelling relevant to the welfare of the animals housed in a facility, and therefore are making no changes based on this comment.

We also proposed in § 3.1(b) to require that housing facilities and areas used for storing animal food and bedding be kept free of any accumulation of trash, waste material, junk, weeds, and other discarded material, in order to prevent an unsanitary condition and problems with diseases, pests, and odors. The need for orderliness applies particularly to the areas where animals are maintained in the housing facilities. Under our proposal, these areas would have to be kept free of clutter, including equipment, furniture, and stored material, but could contain materials actually used and necessary for cleaning the area, and fixtures or equipment necessary for proper husbandry practices and research needs.

A small number of commenters took issue with these proposed provisions. One commenter stated that weeds are not necessarily detrimental to the welfare of animals. Others recommended that we prohibit the conditions described only when they might negatively affect the health and welfare of the animals, or that we reword the proposed provision for clarity. We are making no changes based on these comments. While weeds themselves may not be detrimental, they interfere with such necessary practices as cleaning and rodent control. We continue to believe that the wording as proposed is necessary and enforceable.

Housing Facilities: Surfaces; General Requirements—Sections 3.1(c) (1) and (2)

We included in proposed § 3.1(c) requirements concerning housing facility surfaces that are common to all types of facilities. We proposed to include requirements specific to particular types of facilities in separate sections. In § 3.1(c)(1), we proposed to require that the surfaces of housing facilities either be easily cleaned and sanitized, or be removable or replaceable when worn or soiled. These provisions also applied to houses, dens, and other furniture-type fixtures or objects within the facility.

Proposed § 3.1(c)(1) also required that any surfaces that come in contact with dogs and cats be free of jagged edges or sharp points that might injure the animals, as well as rust that prevents the required cleaning and sanitization. We proposed to allow rust on metal surfaces, as long as it is not excessive and does not reduce structural strength or interfere with proper cleaning and sanitization.

We proposed in § 3.1(c)(2) to require that all surfaces be maintained on a regular basis and that surfaces that cannot be easily cleaned and sanitized be replaced when worn or soiled.

A small number of commenters specifically supported these provisions as written. One commenter expressed the opinion that the provisions in proposed § 3.1(c)(1) were redundant with the requirements in proposed § 3.10. We disagree. The requirements in proposed § 3.1(c)(1) are structural requirements for housing facilities. The provisions in proposed § 3.10 pertain to cleaning and sanitization.

One commenter stated that rusted areas cannot be adequately sanitized, and that rust affects structural strength and creates harmful runoff, and therefore should be prohibited. Based on our experience enforcing the regulations, we have not found superficial rust to be a problem with regard to either structural strength or sanitization. We are therefore making no changes based on this comment.

Housing Facilities: Surfaces; Cleaning—Section 3.1(c)(3)

We proposed in § 3.1(c)(3) to require that hard surfaces that come in contact

with dogs or cats be spot-cleaned daily and sanitized at least every 2 weeks. Proposed § 3.10(b) also provided for various methods of sanitizing primary enclosures and food and water receptacles. Because these methods are effective in general for sanitization of hard surfaces that cats and dogs come in contact with, any of them could be used for the sanitization required by § 3.1(c). We proposed that floors made of dirt, absorbent bedding, sand, gravel, grass, or other similar material would have to be raked or spot-cleaned with sufficient frequency to ensure all animals the freedom to avoid contact with excreta. This flooring material would have to be replaced if the raking and spot-cleaning were not sufficient to prevent or eliminate odors, pests, insects, or vermin infestation. We proposed that all other surfaces would have to be cleaned and sanitized when necessary to satisfy generally accepted professional and husbandry practices.

A small number of commenters stated that dogs or cats in large open runs may not need to have those areas cleaned daily. The regulations as proposed require only daily spot-cleaning of hard surfaces with which the dogs and cats come into contact. We consider such a requirement both practicable and necessary and are making no changes based on the comments.

One commenter opposed the use of floors such as dirt, sand, and gravel, stating that such materials cannot be adequately sanitized. We are making no changes based on these comments. While it is sometimes difficult to use standard sanitization procedures on such surfaces, it is relatively simple to replace specific areas as needed. Several commenters objected to the use of gravel surfaces on the grounds that the use of such material was inhumane. Section 3.1(a) of this final rule requires that housing facilities must protect the animals there from injury. In any cases where the use of gravel is shown to be causing injury, it is prohibited under § 3.1(a).

Several commenters stated that sanitization should be required either daily or weekly. The provisions as proposed stated that sanitization must be carried out at least every two weeks, and more often if necessary to prevent an accumulation of dirt, debris, food waste, excreta, and other disease hazards. Based on our experience enforcing the regulations, we consider such provisions adequate for proper sanitization.

The regulations as proposed required cleaning to prevent any accumulation of excreta. Many commenters stated that it would be impossible to prevent all accumulation of excreta, and recommended that we delete the word "any" before the word "accumulation." We consider the commenters' point a valid one and are making the recommended change.

One commenter requested that we define "hard surfaces." We consider the term self-explanatory and are making no changes based on the comment.

Facilities: Water and Electric Power—Section 3.1(d)

In the existing regulations, § 3.1(b) specifies that reliable and adequate water and electric power must be made available "if required to comply with other provisions of this subpart." In our proposed rule, we set forth provisions concerning water and electric power in § 3.1(d). We proposed there to eliminate the qualifying statement cited above, and to require that all facilities have reliable and adequate electric power and potable running water for the dogs' and cats' drinking needs, for cleaning, and for carrying out other husbandry requirements.

A small number of commenters supported the proposed provisions as written. Several commenters recommended that facilities be required to provide both hot and cold water. Several other commenters stated that the water available should be required to be potable only if used for drinking. We are making no changes to our proposal based on these comments. Because methods of sanitation exist that do not require hot water, we disagree that hot water is a necessity for adequate maintenance of a housing facility. However, we do consider it necessary to require that all water provided be potable, because it is difficult, if not impossible, to ensure that dogs and cats will not drink from puddles left from cleaning the facility.

Housing Facilities: Storage—Section 3.1(e)

We proposed in § 3.1(e) to expand the regulations in existing § 3.1(c) concerning proper storage of food and bedding supplies. The proposed provisions retained the requirements that food and bedding be stored so as to protect them from vermin infestation or contamination. Additionally, we proposed requirements to ensure further the quality of the food and bedding used by animals, and therefore of the area in which the animals are housed. We specified that open supplies of food and bedding would have to be stored in leakproof containers with tightly fitting lids to protect the supplies from spoilage and contamination. We proposed to require that the supplies be stored off the floor and away from the walls, to allow cleaning around and underneath them. We also proposed to require that food requiring refrigeration be stored accordingly, and that all food be stored so as to prevent contamination or deterioration of its nutritive value. Under the proposal, substances toxic to dogs and cats would not be allowed to be stored in food storage and preparation areas, but could be stored in cabinets in the animal areas.

A small number of commenters supported the proposed provisions as written. A small number of commenters stated that storage of food and bedding near walls should be permissible. We continue to believe that the provision restricting storage near walls is necessary to allow for cleaning and pest control and are making no changes to the proposal based on these comments.

Several commenters recommended that we require that food be stored in accordance with either manufacturer's recommendations, generally accepted practice, or human food service guidelines. We consider the intent of the commenters' recommendations to be met by the proposed requirement that all food be stored in a manner that prevents contamination and deterioration of its nutritive value.

A small number of commenters recommended that the regulations be less specific than proposed regarding where toxic substances may be stored, and require only that known toxic substances be stored in a manner so as to prevent accidental contamination of food products and contact with dogs and cats. We continue to believe that the well-being of the animals requires that no toxic substances be stored in food storage and preparation areas, and are retaining that provision in this final rule. Further, we continue to believe that because of the danger of toxicity to the animals housed, it is necessary to require that toxic substances stored in animal areas be kept in cabinets. We are therefore making no changes based on the comments.

One commenter stated that if toxic materials are stored in animal areas, it should be required that appropriate materials for cleaning up a spill be available. We do not consider such a requirement necessary. Provisions exist elsewhere in the regulations to ensure that the facility is maintained in such a way as to prevent injury to the animals. It will be incumbent upon the facility to ensure that they have the proper materials to comply with these provisions. In setting forth our proposal, our intent was to limit the toxic materials that may be housed in animal

areas to those required for normal husbandry practices. We are therefore adding wording to § 3.1(e) to clarify that intent.

One commenter stated that facilities should be allowed to adopt their own strategies for storing feed and chemicals, because the cost of providing additional storage space would be considerable. We consider the storage requirements proposed to be the minimum necessary, and to be in accordance with generally accepted husbandry and feed storage practices. We are therefore making no changes based on the comment.

Several commenters stated that instead of requiring that open supplies of food and bedding be stored in leakproof containers, the regulations should require that such supplies be stored in containers that will prevent contamination and spoilage. Based on our experience enforcing the regulations, we consider leakproof containers necessary to prevent contamination and spoilage, and are therefore making no changes based on these comments.

Housing Facilities: Drainage and Waste Disposal—Section 3.1(f)

In § 3.1(f) as proposed, the requirement was retained that housing facilities provide for removal and disposal of animal and food wastes, bedding, dead animals, and debris, as provided in existing § 3.1(d). We proposed to clarify this requirement to include all fluid wastes and to include a provision that arrangements must be made for regular and frequent collection, removal, and disposal of wastes, in a manner that minimizes contamination and disease risk. We also proposed to require that trash containers be leakproof and be tightly closed, and that no forms of animal waste, including dead animals, be kept in food and animal areas.

Requirements for drainage are contained in existing §§ 3.2(e) and 3.3(d), under the sections concerning indoor facilities and outdoor facilities, respectively. Since all types of animal housing facilities, including our proposed categories of sheltered housing facilities and mobile or traveling housing facilities, must have some way of disposing of waste and liquids, we proposed to consolidate all drainage and waste disposal requirements in proposed § 3.1(f).

Both existing §§ 3.2(e) and 3.3(d) require that a suitable method of eliminating excess water be provided. We proposed to retain that requirement and expand it to pertain to sheltered and to mobile or traveling housing facilities as well. Existing § 3.2(e) requires that any drains used be properly constructed and kept in good repair to guard against foul odors. Additionally, where closed drainage facilities are used, they must be equipped with traps and be installed so that they prevent the backflow of odors and the backup of sewage onto the floor. We proposed to retain these provisions and expand them for indoor facilities, and proposed that the expanded provisions would also apply to other types of facilities where such drainage is appropriate.

We also proposed to require that disposal and drainage systems minimize vermin and pest infestation, and disease hazards. As part of this safeguard, we proposed to require that any sump or settlement pond, or similar system for drainage and animal waste disposal, be located an adequate distance from the animal area of the housing facility. We also proposed to require that standing puddles of water in animal areas be promptly mopped up or drained so that the animals stay dry.

A small number of commenters specifically supported the provisions of proposed § 3.1(f) as written. A large number of commenters interpreted our provisions regarding the prevention of odor and sewage as a requirement that closed drainage systems include backflow valves. Many commenters stated that installing such valves would be prohibitively expensive. The use of backflow valves was not specifically required in the proposed regulations. The provisions in question called for essentially the same standards as those already required under the existing regulations. We therefore do not expect facilities to experience significant practical or financial difficulties in meeting the standards.

A small number of commenters asserted that adequate provision to preclude direct contact of animals with sewage or other wastes was included in § 3.10 of the proposal. We do not agree. Section 3.10 as proposed addresses cleaning, sanitization and housekeeping, but does not directly address drainage requirements.

One commenter recommended that we change the proposed requirement that animal waste and water be rapidly eliminated and that the animals be kept dry to read only that animal waste and water be adequately eliminated. We continue to believe that the wording of the proposal adequately conveys the intent of the proposed standard and are making no changes based on the comment.

A number of commenters recommended that we eliminate the proposed requirement that standing puddles of water in animal enclosures be drained or mopped up. These commenters stated that no evidence exists that dogs exercised in the rain suffer any deleterious effects. We do not consider pet animals being exercised in the rain by their owners to be parallel with animals housed within a facility. Because of the confined nature of such facilities, we consider the provision as proposed necessary to decrease the likelihood of contamination of the animals.

A number of commenters recommended that the regulations require that waste be removed from within the facility daily. One commenter recommended that such removal should occur twice daily. As proposed, removal of wastes must take place on a regular and frequent basis. We continue to believe that such a requirement will adequately protect the well-being of the animals, and are making no changes to that provision.

A number of commenters opposed the proposed requirement that trash containers have lids. We are making no changes based on these comments. We consider the covering of trash containers as necessary to control insects and odors. Under these regulations, the use of lids is required only in animal areas and food storage and preparation areas, not in office areas.

A number of commenters addressed the issue of sump ponds. A small number of commenters recommended that open sump ponds be prohibited. Several commenters recommended that the regulations include a specific minimum distance from research facilities that sump ponds may be located. As we stated in our proposal, based on our experience enforcing the regulations, we believe that sump ponds can be used without health risk if located an adequate distance from a facility. However, what constitutes an appropriate distance will often vary according to the size and configuration of the pond and the topography surrounding the facility. We believe this rule addresses these variables adequately and we are making no changes based on the comments.

A small number of commenters recommended that we add to our provisions regarding sump or settlement ponds the requirement that they be located far enough away from the facility to prevent the spread of diseases through the sewage system to the animal area. We are not aware of disease spread in such a manner having been a problem to date and are therefore making no changes based on these comments.

Several commenters stated that the wording we used to restrict storage of dead animals, animal parts, and animal waste was repetitive. We consider the wording used for the provision in question necessary for proper enforcement, and are making no changes based on the comments. One commenter stated that the prohibition of the storage of animal parts in food areas should not preclude storing canned food in refrigerators along with blood/serum samples. We are making no changes based on this comment. We believe that the danger of contamination of foodstuffs by animal parts can be significant, and that a general prohibition on commingling the two is necessary on a practical level for proper enforcement.

Housing Facilities: Washrooms and Sinks—Section 3.1(g)

In proposed § 3.1(g), we proposed to retain the requirement in existing § 3.1(e) that washing facilities be available to animal caretakers for their own cleanliness, and to include it in proposed § 3.1(g). As proposed, facilities would be required to provide readily accessible washrooms, basins, sinks, or showers for animal caretakers. A small number of commenters recommended that showers be required. Conversely, several commenters expressed concern whether facilities with showers alone would meet the regulations. We are making no changes based on these comments. While we agree that showers can constitute adequate washing facilities, we do not consider them the only appropriate method of ensuring employee hygiene.

Temperatures in Housing Facilities

Temperature Requirements in Enclosed Facilities—Sections 3.2(a), 3.3(a), and 3.5(a)

We proposed that enclosed housing facilities—that is, indoor facilities, the sheltered portion of sheltered housing facilities, and mobile or traveling facilities—be sufficiently heated and cooled when necessary to protect the dogs and cats from temperature extremes and to provide for their health and well-being. We set forth the heating and cooling requirements for each of the above categories in §§ 3.2(a), 3.3(a), and 3.5(a) respectively. We proposed to set forth ventilation requirements in §§ 3.2(b), 3.3(b), and 3.5(b) respectively.

In establishing minimum temperatures for these facilities, the proposed regulations took into account whether a particular dog or cat housed there is acclimated to relatively low temperatures, and whether for some other reason, either because of breed, age, or condition, a dog or cat should not be subjected to certain low temperatures. In § 3.2(a) of the existing regulations for indoor facilities, the minimum temperature allowed is 50 °F (10 °C) for all dogs and cats in those facilities that are not acclimated to lower temperatures. We proposed that in indoor, sheltered, and mobile or traveling housing facilities, the minimum temperature allowed continue to be 50 °F (10 °C) for dogs or cats not acclimated to lower temperatures. Because some dogs cannot be acclimated to lower temperatures, we also proposed to apply the 50 °F (10 °C) minimum to breeds of dogs or cats that cannot tolerate lower temperatures without stress and discomfort (e.g., short-haired breeds such as beagles, greyhounds, and Dobermans), and to dogs and cats that are sick, aged, young, or infirm. We proposed that exceptions to the 50 °F (10 °C) minimum could be made upon approval of the attending veterinarian, and that the minimum temperature for all other dogs and cats would be 35 °F (1.7 °C).

In the existing regulations, there is no maximum temperature specified for indoor housing facilities, although auxiliary ventilation is required when the temperature rises to or above 85 °F (29.5 °C). In the proposed rule, we established a maximum temperature of 95 °F (35 °C) for indoor facilities, mobile or traveling facilities, and the sheltered part of sheltered housing facilities, when those facilities contain dogs or cats. For each of those categories of shelters, we proposed that auxiliary ventilation, such as fans or air conditioning, would have to be used when the temperature rises to or above 85 °F (29.5 °C).

We received a large number of comments with regard to the temperature in indoor, sheltered, and mobile and traveling housing facilities. A number of commenters recommended specific temperature ranges that were more stringent than those included in our proposal. A number of commenters stated either that our proposed temperature ranges were too narrow, or that they did not leave enough latitude for professional judgment on the part of the attending veterinarian in the case of individual animals or breeds.

We continue to believe that the well-being of dogs and cats housed in enclosed facilities requires that parameters be established for hot and cold temperatures. Although the regulations as proposed provide the attending veterinarian some latitude in deciding whether unacclimated dogs and cats may be exposed to temperatures lower than an otherwise specified limit, we do not believe that the needs of the animals housed vary so widely as to warrant removing all temperature limits.

A number of commenters stated that the 35 °F and 95 °F limits we proposed were too lenient. On the other hand, a large number of commenters stated that the limits we proposed did not adequately take into account acclimated animals that can tolerate temperatures outside those limits. Upon review of the comments, we consider both viewpoints to have some merit. While the limits we proposed may become intolerable to certain animals at the extremes, we agree that animals can become acclimated to temperatures outside those limits. Therefore, in this final rule, we are establishing general temperature limits more stringent than those proposed, while at the same time allowing flexibility to accommodate animals that can tolerate temperatures outside those limits. We are providing in this final rule that the ambient temperature in the enclosed facilities must not fall below 45 °F (7.2 °C) for more than 4 consecutive hours when dogs or cats are present, and must not rise above 85 °F (29.5 °C) for more than 4 consecutive hours when dogs or cats are present.

A small number of commenters recommended that the regulations require that alternative surfaces that allow the dogs and cats to avoid surfaces such as concrete or metal be made available to every animal when the temperature falls below 45 °F (7.2 °C), and to sick, aged, infirm, or very small animals at other times. Upon review of the comments, we agree that in order for certain dogs and cats to tolerate cold temperatures, they must be able to conserve their body heat. To allow for such conservation of body heat, we are including in this final rule the requirement that enclosed housing facilities provide dry bedding, solid resting boards, or other methods of conserving body heat when temperatures are below 50 °F (10 °C).

Many commenters stated that short-haired breeds should not be limited to a 50 °F (10 °C) minimum temperature, because some short-haired breeds are what the commenters termed "winter hardy." We are making no changes based on these comments. Although we consider 50 °F a necessary minimum for the well-being of most short-haired breeds, the regulations as proposed provided the attending veterinarian the professional discretion to make exceptions where appropriate. A small number of commenters objected to the

allowance of such exceptions. We continue to believe that the professional education and experience of the attending veterinarian enables him or her to make a professional judgment based on the condition of the animal and the circumstances involved, and that such flexibility is necessary to accommodate differences in individual animals and situations.

One commenter stated that setting minimum and maximum temperatures alone is not sound, and that standards should be written that take into account temperatures, humidity, air velocity, and acclimation requirements for breeds and species. To the best of our knowledge, the comprehensive information described by the commenter does not exist. Based on the information available to us, and on our experience enforcing the regulations, we consider the temperature limits we have set as minimum standards for the health and well-being of the animals in question.

Several commenters, addressing the temperature requirements for sheltered housing facilities, questioned whether the outdoor portion of sheltered housing facilities must be closed off when the temperature falls outside the allowable range for the enclosed portion of the facility. Several commenters also requested that the regulations clarify that sheltered housing facilities are not required to control the temperature of the outside portion of those facilities. We believe that common sense dictates that the outdoor portion of sheltered housing facilities cannot be heated, and that no further clarification is necessary in the regulations. In a sheltered facility, the enclosed area must be available to the animals at all times. There is therefore no reason to restrict the animals from exiting to the outdoor portion if they choose.

Ventilation Requirements in Housing Facilities—Sections 3.2(b), 3.3(b), and 3.5(b)

The requirements for ventilation of indoor housing facilities that are set forth in § 3.2(b) of the existing regulations were retained in the proposal, and were extended to apply to all sheltered portions of sheltered, and mobile or traveling housing facilities to provide for the health and well-being of dogs and cats. Based on our inspections of dealer, exhibitor, and research facilities, we proposed to add (1) That ventilation must also be provided to minimize odors, drafts, ammonia levels, and moisture condensation in these housing facilities; (2) that ventilation in mobile or traveling facilities must minimize exhaust fumes; and (3) that in indoor housing facilities and the sheltered part of sheltered housing facilities, the relative humidity must be maintained at a level that ensures the health and well-being of the dogs or cats housed in the facility, in accordance with the directions of the attending veterinarian and generally accepted professional and husbandry practices.

A small number of commenters specifically supported the ventilation requirements in the proposed rule. A small number of commenters recommended that it be required that the relative humidity in indoor facilities be maintained between 30 and 70 percent. Others recommended in general that specific ventilation standards be established to eliminate disagreements between inspectors and facilities. We are making no changes based on these comments. The effect on animals of a particular level of humidity depends to a great degree on other factors, such as temperature and ventilation. We therefore consider it appropriate as proposed to allow professional discretion regarding exact humidity levels.

A small number of commenters stated that it is unnecessary to require as proposed that auxiliary ventilation be used at temperatures equaling or exceeding 85 °F (29.5 °C), because the regulations as proposed require in general that facilities be sufficiently ventilated to provide for dogs' and cats' health and well-being. While we agree that the requirement for auxiliary ventilation at higher temperatures falls under the general requirement for adequate ventilation, we continue to believe that it serves a specific and necessary purpose. Based on our experience enforcing the regulations, achieving adequate ventilation at moderate temperatures can be accomplished through various means, such as either natural or mechanical ventilation. However, at higher temperatures, auxiliary ventilation becomes necessary on a uniform basis in ensuring the health and well-being of the animals. We are therefore making no changes based on the comments.

A number of commenters opposed the requirement for auxiliary ventilation at 85 °F in cases where animals are acclimated to such conditions. We are making no changes based on these comments. Because an animal is acclimated to high temperatures under one set of conditions does not ensure that it can tolerate those same temperatures under all conditions. It is the combination of temperature, humidity, and ventilation, along with whether an area is open or enclosed, that determines whether conditions are tolerable. Because the effect of a high temperature is heightened in a confined space, we consider it necessary that auxiliary ventilation be provided for all dogs and cats housed in enclosed areas when the temperature reaches or exceeds 85 °F.

A small number of commenters stated that the regulations should require that auxiliary ventilation be used in mobile or traveling housing facilities when the ambient temperature reaches 75 °F. The commenters' recommendations were not supported by additional data as to why the change from our proposal would be necessary, and we are making no changes based on this comment.

One commenter expressed concern that determining what constitutes excessive odor will involve a subjective evaluation. The requirement that odors be minimized is included in the existing regulations. While we agree that it does not lend itself to precise measurement, we consider the word "minimize" to be sufficiently measurable for enforcement purposes.

Lighting Requirements in Housing Facilities—Sections 3.2(c), 3.3(c), and 3.5(c)

In the proposed regulations, we retained the requirement in § 3.2(c) of the existing regulations that indoor housing facilities have ample light to permit routine cleaning and inspection, and proposed also that it must allow observation of the dogs and cats. We proposed to apply these requirements to all of the enclosed housing facilities included in the proposed regulations. We also proposed to require in each case that either natural or artificial light be provided according to a regular diurnal lighting cycle, and that sufficient light be provided to aid in maintaining good housekeeping practices, adequate cleaning, adequate inspection of animals, and for the well-being of the animals. Also, in our proposal, we retained the requirement in the existing regulations for indoor facilities that primary enclosures be placed so as not to expose the animals in them to excessive light, and we proposed to extend that requirement to sheltered enclosures.

A small number of commenters specifically supported the lighting requirements as proposed. Several commenters responded to the statement we originally made in the supplementary information of our original proposal that an example of excessive lighting might involve an animal housed in the top cage of a stack of cages near a light fixture. The commenters stated that there is no

evidence that dogs and cats are harmed by the level of light generated by artificial sources when housed in top cages. We recognize that not all animals housed in top cages are exposed to excessive light, and have included no standards in the regulations specifically addressing such housing. As we explained in our revised proposal, and as we continue to believe, the example we provided involves just one of a variety of situations that could constitute excessive light.

A number of commenters objected to the proposed requirement for lighting on a regular diurnal cycle, and recommended instead that the regulations require a specific number of hours of light or darkness each day. Upon review of the comments, we continue to believe that it would not be beneficial in all cases to establish one specific timetable for lighting. Such a specific timetable might not be necessary or warranted in all cases, and might not coincide with normal outdoor lighting cycles at a particular time of year. The wording as proposed is designed to allow for professional discretion regarding lighting appropriate to varying situations.

A number of commenters objected to the provision in our proposal that light in enclosed housing facilities be uniformly diffused. One commenter stated that the uniform diffusion of light in a facility is technically impossible. The requirement in our proposal for the uniform diffusion of light is very similar to the requirement in the existing regulations for "uniformly distributed illumination." Our intent in retaining the requirement for uniform lighting was to allow for proper cleaning, observation of animals, and inspection, without the need for an additional light source, such as a flashlight. We consider this standard to be both necessary and attainable.

One commenter stated that the lighting standards were only minimal. As we discussed in our revised proposal, it is our purpose throughout the regulations to establish minimum standards for the health and well-being of regulated animals. Although we encourage practices that exceed the minimum, we consider the standards in this final rule adequate to meet their purpose.

In our proposal, the lighting requirements for mobile or traveling housing facilities did not contain a prohibition of excessive lighting. One commenter stated that such a prohibition should be included. Because of the nature of mobile and traveling housing facilities, and the electrical and lighting systems present in such facilities, we have not found excessive lighting there to be a problem. We are therefore making no changes based on the comment.

Specific Provisions for Indoor Housing Facilities—Section 3.2(d)

Section 3.2(d) of the existing regulations, regarding the interior surfaces of indoor housing facilities, requires that those surfaces be substantially impervious to moisture and readily sanitized. In § 3.2(d) of the proposed regulations, we retained the requirement that all surfaces be impervious to moisture, but made an exception in the case of ceilings that are replaceable. An example of this would be a suspended ceiling with replaceable panels. The requirements we proposed concerning interior surfaces are more stringent for indoor housing facilities than for any other type of facility. Only for indoor facilities, for example, did we propose that ceilings have to be either impervious to moisture or replaceable. This is because indoor facilities generally operate on one ventilation system, and any disease organisms or excessive odors that occur in the facility might spread throughout the facility, requiring a thorough cleaning or replacement of all interior surfaces.

A number of commenters specifically supported the proposed provisions as written. Several commenters stated that ceilings should always be impervious to moisture, and recommended that we delete the provision that they may be replaceable. We are making no changes based on this comment. In many cases, replacing a ceiling would be more effective in minimizing disease risk than cleaning it.

A small number of commenters recommended that the proposed provisions regarding ceilings be changed to require that the ceiling be kept clean and dry. We consider the proposed wording adequate to convey this intent and are making no changes based on these comments.

One commenter stated that the requirement for impervious or replaceable ceilings discriminates against research facilities, because ceilings are not addressed with regard to mobile, outdoor, and sheltered facilities. The requirement for impervious or replaceable ceilings has nothing to do with the purpose of a facility. As we explained in our proposal, we consider the more stringent requirement necessary for indoor facilities because indoor facilities generally operate on one ventilation system, and any disease organisms or excessive odors that occur in the facility might spread throughout the facility, requiring a thorough cleaning or replacement of all interior surfaces.

A number of commenters objected to our proposed requirement that certain areas of indoor facilities be impervious to moisture, and recommended instead that the proposal call for surfaces that are either moisture retardant or repellant. Some of these commenters stated that surfaces impervious to moisture might not allow for secure footing. We are making no changes based on these comments. We do not agree that because a surface is impervious to moisture implies that it causes insecure footing. We also do not consider moisture-retardant surfaces adequate to achieve the necessary end, which is prevention of the absorption of fluids and wastes. The intent of the provision was to facilitate cleaning and sanitation and to decrease odors and disease hazards. We continue to consider impervious surfaces in indoor facilities necessary to achieve these ends.

Specific Provisions for Sheltered Housing Facilities—Sections 3.3 (d) and (e)

In proposed § 3.3(d) regarding sheltered housing facilities, we set forth the requirement that dogs and cats be provided with adequate shelter and protection from the elements to protect their health and well-being.

In order to maintain sanitary conditions in sheltered housing facilities, we proposed to establish the following requirements in § 3.3(e). Under our proposal, the following areas would have to be impervious to moisture: (1) Indoor floor areas in contact with the animals; (2) outdoor floor areas not exposed to the direct sun or made of a hard material such as wire, wood, metal, or concrete, in contact with the animals; and (3) all walls, boxes, houses, dens, and other surfaces in contact with the animals. We proposed that outside floor areas in contact with the animals and exposed to the direct sun could consist of compacted earth, absorbent bedding, sand, gravel, or grass.

A small number of commenters specifically supported the provisions regarding sheltered housing facilities as written. Several commenters, in referring to shelter at sheltered housing facilities, recommended specific protection from heat for traditional dog houses. In general, we do not expect the use of traditional dog houses in sheltered housing facilities and are making no changes based on these comments.

One commenter requested that we define "adequate shelter." We consider

the meaning of "adequate shelter" to be clear in § 3.3 as proposed and are making no changes based on this comment.

A small number of commenters recommended that we reword our proposed requirements regarding shelter to make it clear that the sheltered housing facility must be large enough to provide all the animals present with shelter from the elements at the same time. We agree that it would be beneficial for the animals involved to clarify that shelter must accommodate all animals comfortably. We are therefore adding wording to § 3.3(d) as proposed to require that the shelter structures must be large enough to allow each animal to sit, stand, and lie in a normal manner and to turn about freely.

One commenter stated that the provisions regarding exposure to direct sun should include a specific duration of such exposure. The intent of those provisions was that the floor areas in question must be exposed to sunlight at some time during the day. Based on that intent, we do not consider it necessary to specify a duration of sunlight.

One commenter stated that outdoor floor areas should not be restricted solely to those materials listed in § 3.3(e)(2) (compacted earth, absorbent bedding, sand, gravel, or grass). The proposed regulations as written do not restrict outside areas to the surfaces listed in § 3.3(e)(2). Examples of alternative surfaces are provided in § 3.3(e)(1)(ii).

Specific Provisions for Outdoor Housing Facilities—Section 3.4

The intent of § 3.3 of the existing regulations is to provide adequate standards for the care of animals housed outdoors. However, our inspections of dealers' and exhibitors' facilities in climates with temperature extremes have indicated that some licensees are not meeting what we believe should be minimum standards for the treatment of dogs and cats. Specifically, we consider it necessary to make the regulations more stringent regarding the types of dogs and cats that can be kept outdoors, and regarding what shelter is necessary for dogs and cats kept outdoors. Therefore, we proposed to revise the existing requirements for outdoor facilities, to make them more clearly defined and more stringent.

Because outdoor facilities cannot be temperature-controlled, it is necessary to judge a dog's or cat's suitability for outdoor housing on an individual basis. We set forth provisions in proposed § 3.4(a)(1) that a dog or cat could not be kept in an outdoor facility, unless specifically approved by the attending veterinarian, if (1) it is not acclimated to the temperatures prevalent in the area or region where the facility is located; (2) it is of a breed that cannot tolerate the prevalent temperatures of the area without stress or discomfort (such as short-haired breeds in cold climates); or (3) it is aged, young, sick or infirm. We recognize that in some situations, particularly in the case of dogs or cats obtained from pounds, it will not be known whether an animal has been acclimated to prevailing temperatures. Therefore, in proposed § 3.4(a)(2), we provided that if a dog's or cat's acclimation status is unknown, it must not be kept in an outdoor facility when the ambient temperature is less than 35 °F (1.7 °C).

With regard to the type of shelter required for dogs and cats housed outdoors, we believe that the existing regulations should be expanded to specify what is necessary for better and more humane treatment of the dogs and cats. In essence, the existing regulations require that dogs and cats be provided with sufficient shade to protect them from the direct rays of the sun, shelter to keep them dry during rain or snow, and shelter when the atmospheric temperature falls below 50 °F (10 °C). Additionally, bedding or some other protection is required when the ambient temperature falls below that to which the dog or cat is acclimated.

In § 3.4(b) of the proposed rule, we set forth the requirement that all outdoor facilities housing dogs or cats include one or more shelter structures that are accessible to all animals in the facility, and that are large enough to allow all animals in the structure to sit, stand, and lie in a normal manner, and to turn about freely. We proposed in § 3.4(b) that the shelter structure would have to: (1) Provide adequate shelter and protection from the cold and heat; (2) be protected from the direct rays of the sun and the direct effect of wind, rain, or snow; (3) have a wind break and a rain break at its entrance; (4) contain clean, dry, bedding material; and (5) include a roof, four sides, and a floor. We also proposed in § 3.4(b) that in addition to the shelter structure, there would have to be one or more separate outside areas of shade provided, large enough to contain all the animals at one time and to protect them from the direct rays of the sun.

In proposed § 3.4(c), we set forth the requirement that all building surfaces that are in contact with dogs or cats in outdoor housing facilities be impervious to moisture. We specified that metal barrels, cars, refrigerators or freezers, and the like would not be permitted as shelter structures, and that the floors of outdoor housing facilities could be of compacted earth, absorbent bedding, sand, gravel, or grass, but would have to be kept clean.

A small number of commenters specifically supported the provisions regarding outdoor housing facilities as written.

A small number of commenters objected to the 35 °F minimum for dogs and cats at outdoor housing facilities, when the acclimation status of those animals is unknown. One of these commenters stated that the proposed 35 °F minimum was inconsistent with the 50 °F proposed minimum in indoor and sheltered housing facilities for dogs not acclimated to lower temperatures. We agree that temperatures below 50 °F can be just as hazardous to unacclimated animals at outdoor facilities as at indoor and sheltered housing facilities, and are therefore providing in this final rule that dogs and cats whose acclimation status is unknown must not be kept in outdoor facilities when the ambient temperature is less than 50 °F (10 °C).

A small number of commenters stated that the minimum temperature for dogs and cats of unknown acclimation status should be removed, and responsibility for such decisions left to the attending veterinarian. We do not agree that the attending veterinarian can make a valid decision regarding an animal's tolerance without knowing its acclimation status and are making no changes based on these comments.

Many commenters recommended that we delete short-haired breeds in cold climates as an example of dogs or cats that must not be housed in outdoor facilities. We are making no changes based on these comments. Most short-haired breeds cannot tolerate cold temperatures. In those cases where individual animals or breeds can tolerate cold temperatures, the regulations as proposed allow for professional discretion on the part of the attending veterinarian.

A small number of commenters objected to the proposed regulations which allow the attending veterinarian to grant exceptions to the general prohibition on housing certain dogs and cats outside. We continue to believe that differences in animals and varying situations make it necessary to allow for professional judgment in certain cases. We also continue to believe that the attending veterinarian is the individual best qualified to exercise this judgment.

A small number of commenters stated that specific standards for what constitutes "acclimation" should be included in the regulations. We consider the term "acclimation" to be adequately

defined by normal usage, and do not consider it necessary to define the term further. One commenter recommended that we delineate more specifically which dogs and cats may not be housed outdoors. We consider the provisions as proposed to be clear as written and are making no changes based on this comment. One commenter stated that the terms "sick," "infirm," "aged," and "young" should be defined. We expect the attending veterinarian to exercise professional judgment regarding these terms, and do not agree that specific definitions beyond those which are commonly understood are necessary or desirable.

One commenter stated that the wind chill factor must be considered in the outdoor housing of dogs and cats. We agree, and consider this factor to be addressed in § 3.4(b) as proposed, regarding shelter from the elements.

A number of commenters addressed the provisions in proposed § 3.4(b), regarding shelter from the elements at outdoor housing facilities. Several commenters recommended that a maximum of six dogs be allowed per shelter. We do not consider such a limit necessary. Proposed § 3.6 of the regulations allows for a maximum of 12 nonconditioned dogs per primary enclosure. We see no reason to set a limit on conditioned animals, provided the space and compatibility requirements otherwise required by the regulations are met.

Several commenters requested definitions of "wind break" and "rain break." We believe these terms are self-explanatory and need no further clarification.

A small number of commenters stated that the shelters at outdoor housing facilities should be required to be maintained at indoor temperature ranges. We do not consider such a requirement practical; nor do we consider it necessary in light of the other specific requirements designed to ensure the health and well-being of animals kept at outdoor housing facilities.

A small number of commenters addressed the issue of bedding material at outdoor housing facilities, as required by proposed § 3.4(b)(4). Approximately half of these commenters opposed the requirement for bedding, stating either that group-housed dogs create their own heat, or that bedding materials can serve as fomites for potential disease problems. Conversely, one commenter stated that clean, dry bedding should be required at all times to prevent sores. Another commenter requested that the regulations specify the amount of additional bedding needed at cold temperatures, so that compliance can be verified. We do not agree that the requirement for bedding should be eliminated. We do not consider it advisable to depend on group-housing of dogs to provide adequate warmth at outdoor facilities. Nor do we believe that potential disease hazards from bedding that is improperly cared for should preclude the requirement for bedding material. We also do not consider it practical or necessary to specify exactly how much bedding should be provided. Such a decision should be based on professional judgment regarding species, breed, and prevailing conditions. With regard to requiring bedding to prevent sores, § 3.1(a) of the standards requires that housing facilities protect animals from injury. If the animals in a facility are suffering from sores, then the facility must take measures to come back into compliance with the regulations. Although the use of bedding is one possible solution, we do not consider it necessary to impose a uniform requirement for bedding in all cases.

A number of commenters addressed the provisions in proposed § 3.4(c), regarding the construction of outdoor housing facilities. A small number of commenters supported the proposed provisions as written. A number of commenters took issue with our proposed requirement that floor surfaces in outdoor housing facilities—if made of compacted earth, sand, gravel, or grass—be replaced if there are any prevalent odors, diseases, insects, pests, or vermin. The commenters expressed the opinion that such materials cannot be replaced. We disagree, and consider it both practical and feasible to replace any of the materials listed.

Primary Enclosures—Section 3.6

In proposed § 3.6, we proposed to amend existing § 3.4, "Primary enclosures." The existing section provides general requirements for construction and maintenance of primary enclosures, uniform space requirements for each dog or cat housed in a primary enclosure, and provisions regarding litter and resting surfaces for cats and the tethering of dogs on chains. We proposed to expand the existing general requirements, to add some new requirements, and to clarify the existing requirements in accordance with the intent of the amendments to the Act.

A small number of commenters opposed in general the proposed provisions regarding primary enclosures. A number of commenters recommended that the regulations require that primary enclosures comply with all applicable Federal, State, and local laws and regulations. We disagree. As noted above, our mandate under the Act may not necessarily be the same as those of other Federal, State, and local laws. We do not consider it necessary to attempt to require compliance with other laws to establish minimum standards for primary enclosures.

Primary Enclosures: General Requirements—Section 3.6(a)

The provisions we set forth in proposed § 3.6 regarding primary enclosures contained requirements that all primary enclosures meet certain minimum standards to help ensure the safety and well-being of dogs and cats. A primary enclosure is defined in Part 1 of the regulations as "any structure or device used to restrict an animal or animals to a limited amount of space, such as a room, pen, run, cage, compartment, pool, hutch, or tether." Included among the primary enclosures subject to the proposed regulations are those used by circuses, carnivals, traveling zoos, educational exhibits, and other traveling animal acts and shows. In § 3.6(a) we proposed to continue to require that primary enclosures be structurally sound and maintained in good repair to protect the animals from injury, to contain them, and to keep other animals out. We also proposed to require that the primary enclosures keep unauthorized humans out. We proposed to continue to require that the primary enclosures enable the animals to remain dry and clean; that they provide the animals with convenient access to food and water; that they provide sufficient space for the dogs and cats to have normal freedom of movement; and that their floors be constructed in a manner that protects the animals from injury. With regard to this last requirement, we proposed to specify that if the floors of primary enclosures are of mesh or slatted construction, they must not allow the animals' feet to pass through any openings in the floor.

We proposed to add requirements that the primary enclosures be constructed without sharp points or edges, and that they provide sufficient shade to the animals in the enclosures and protect them from temperature extremes and other weather conditions that might be uncomfortable or hazardous to the animals. We also proposed to require that the primary enclosures be easily cleaned and sanitized, or be replaceable when worn or soiled.

A number of commenters specifically supported the provisions in proposed § 3.6(a) as written.

Section 3.6(a)(2)(iv) of our proposal stated that primary enclosures must be constructed so as to keep other animals

and unauthorized humans from entering the enclosures. A number of commenters objected to this provision, stating that such security is unnecessary for the primary enclosure because of similar security measures required elsewhere in the regulations for the housing facility itself. We disagree with the assertion of the commenters. Even assuming that no unwanted animals would ever enter the facility from the outside, there is still the risk that animals within the facility might escape from their enclosures and pose a risk to confined animals, unless the primary enclosures guard against such risk. We are, however, deleting the requirement that unauthorized humans be kept from entering the primary enclosures, for the reasons set forth in this supplementary information under the heading, "Housing Facilities: Structure; Construction—§ 3.1(a)."

Several commenters stated that the provisions in proposed §§ 3.6(a)(2)(vi) and (a)(2)(vii), regarding protection from weather conditions and the need for shade, respectively, were unnecessary, because shelter and protection from the sun are already addressed elsewhere in the regulations with regard to housing facilities in general. Because housing facilities and primary enclosures are not always the same or equivalent, the provisions as proposed are necessary in both places in the regulations. We are therefore making no changes based on these comments. One commenter objected to the requirement that primary enclosures provide shelter because, according to the commenter, although many types of primary enclosures provide adequate protection when used in an enclosed housing facility, they would not meet the criterion of supplying sufficient shelter in areas not otherwise sheltered by the facility. We are making no changes based on this comment. The regulations do not require that a primary enclosure be able to provide adequate shelter under circumstances that do not exist, only that they properly protect the animals in them in any given situation.

Several commenters recommended that § 3.6(a)(2)(vi) make it clear that shelter and protection from the elements must be accessible to all animals in an enclosure at the same time, and that similar clarification be added in § 3.6(a)(2)(viii) with regard to access to food and water We agree that such a change will better convey the intent of the regulations and are so amending this final rule.

A number of commenters addressed the provisions in proposed § 3.6(a)(2)(x), requiring that, if primary enclosures have floors that are of mesh or slatted construction, they do not allow the dogs' and cats' feet to pass through any openings in the floor. Some commenters opposed mesh flooring of any sort. A small number of commenters expressed the opinion that flooring should always be small mesh. Others were divided as to whether mesh should be allowed that is large enough to permit passage of feces, even though such flooring would probably also allow passage of a dog's or cat's foot. Several commenters stated that floor mesh should be large enough to allow the animals' feet to pass freely back and forth. A small number of commenters stated that flooring designs and materials should be researched individually to suit the situation and the species involved.

We do not consider it practical or necessary to prohibit the use of mesh floors. Many mesh designs can be used without detriment to the animals involved. With regard to the size of openings in the floor, the intent of the Act is to provide for the health and well-being of the animals. Floors that can injure the animals by allowing their legs to pass through do not comply with the intent of the Act, whether or not they prohibit the passage of feces. We do not consider ease of cleaning to be a higher priority than the safety of the animals. We are therefore making no changes based on these comments.

One commenter stated that, because wire or slatted mesh flooring is uncomfortable and may be injurious to the animals enclosed, the regulations should require that solid resting surfaces be provided for both dogs and cats. We agree that certain types of flooring do not allow any relief for the animals enclosed. We are therefore adding a provision to § 3.6(a)(2)(x) of this final rule to require the following: If the floor of a primary enclosure is constructed of wire, a solid resting surface or surfaces that, in the aggregate, are large enough to hold all the occupants of the primary enclosure at the same time comfortably, must be provided.

Section 3.6(a)(2)(xi) of our proposal states that primary enclosures must be constructed so as to provide sufficient space to allow each animal to turn about freely, to stand, sit, and lie in a comfortable, normal position, and to walk in a normal manner. A small number of commenters recommended that the wording be changed to read "provide space that is adequate and permits freedom of movement and normal postural adjustments." We believe that the wording we proposed conveys the intent of the provision adequately and we are making no changes based on these comments. One commenter requested that we define and justify the phrase "to walk in a normal manner." We believe that the meaning of the phrase is self-evident and we are making no changes based on these comments.

Additional Primary Enclosure Requirements for Cats—Section 3.6(b)

We proposed to change the space requirements for cats. In general, the proposed regulations based how much space a cat should have on the animal's weight, and whether it is a nursing mother. The space requirements in §§ 3.4 (b)(1) and (b)(3) of the existing regulations are uniform for all cats, regardless of size, and require that each cat be given a minimum of 2.5 ft^2, with room to turn about freely, and to easily stand, sit, and lie in a comfortable normal position. We consider it necessary, based on our inspections of research facilities, to increase the existing minimum space requirements for all cats. Additionally, because the weight of a cat is a good indicator of its overall size, the floor space requirements should distinguish between cats of different weights. Our proposed standards would provide cats with the space we believe is necessary, and at the same time make our regulations correspond more closely to the NIH Guide. We proposed in § 3.6(b)(1)(ii) (redesignated as § 3.6(b)(1)(ii)(B) in this final rule) to require that weaned cats weighing 8.8 lbs (4 kg) or less be provided with at least 3.0 ft^2 (0.28 m^2) of floor space. We proposed in § 3.6(b)(1)(iii) (redesignated as § 3.6(b)(1)(ii)(C) in this final rule) that cats weighing over 8.8 lbs (4 kg) be provided with a minimum of 4.0 ft^2 (0.37m^2) of floor space. Additionally, we proposed to require that each queen with nursing kittens be provided with an additional amount of floor space, based on her breed and behavioral characteristics, and in accordance with generally accepted husbandry practices as determined by the attending veterinarian. We proposed that if the additional amount of floor space for each nursing kitten is equivalent to less than 5 percent of the minimum requirements for the queen, such housing must be approved by the Committee in the case of a research facility, and by the Administrator in the case of dealers and exhibitors. We proposed to provide that the minimum floor space required would be exclusive of any food or water pans, but that the litter pan may be considered part of the floor space if properly cleaned and sanitized. We proposed in § 3.6(b)(1)(i) (redesignated as § 3.6(b)(1)(ii)(A) in this

final rule) that the height of the primary enclosure for cats would have to be at least 24 inches (60.96 cm).

A large number of commenters addressed the provisions in proposed § 3.6(b)(1) regarding minimum space requirements for cats. A number of commenters specifically supported increased space requirements for cats. A small number of commenters recommended retaining the existing space requirements for cats, either in general or based on the judgment of the attending veterinarian. A large number of commenters recommended doubling the minimum cage size for cats. A small number of commenters stated that all cats, regardless of weight, should be provided with at least 4 square feet of cage space. With regard to the height of primary enclosures, one commenter recommended that the minimum requirement provide only that the interior height must allow the animals to stand and sit without touching the top. We are making no changes to the regulations based on the comments regarding the size of primary enclosures for cats. In developing new proposed space standards, we have consulted extensively with HHS, as statutorily mandated. The space requirements we proposed are consistent with other Federal guidelines, and we consider them necessary and adequate for the well-being of the cats. We do not agree that all cats need to be provided with the same amount of space. It is unreasonable to require that a cat weighing 1 lb. be provided the same amount of space as a cat weighing 10 lbs.

A number of commenters requested that justification be provided for the provision in proposed § 3.6(b)(1)(v) (redesignated as § 3.6(b)(1)(iv) in this final rule) that food and water pans would not be counted as required floor space. We believe it is obvious that requiring animals to walk or rest in their food and water receptacles in order to achieve adequate space would encourage sanitation and health problems.

A number of commenters requested that existing primary enclosures that would meet the proposed space requirements if the space occupied by food and water bowls is counted, be permitted usage until needing replacement for normal wear and tear. As discussed in the preceding paragraph, it is not humane to require cats to use their food and water bowls as part of their minimum floor space, and we do not agree with the commenters' recommendation.

A number of commenters addressed the proposed requirement for increased space for nursing queens. A small number of commenters opposed allowing such additional space. Other commenters recommended that the standard additional space per kitten be 10 percent, rather than 5 percent as proposed, or that the regulations provide specific requirements for neonatal floor space, rather than percentage requirements. We are making no changes based on these comments. The general minimum space requirements for cats that we proposed were found to be necessary for each animal. We consider it self-evident that additional animals in an enclosure will occasion the need for additional space. We disagree, however, that an additional 10 percent is necessary for each kitten, especially in view of the fact that this final rule will increase the minimum space requirements for adult cats. We also disagree that specific uniform requirements for nursing queens are appropriate. The space necessary for the queen herself will be determined by her weight. We consider it reasonable to base the additional space necessary for nursing kittens on the number of kittens present.

Several commenters recommended that the requirement for additional space for nursing queens not begin until the kittens are 3 weeks old. We disagree. Not only is the additional space necessary from the kittens' birth, but adopting the commenters' recommendation would often result in an unnecessary movement of the queen and kittens.

One commenter stated that the provisions regarding increased space for nursing kittens was unenforceable, because breed and behavioral characteristics do not provide a useful determinant. The commenter stated further that "accepted husbandry practices" are the very practices Congress wishes to change. We disagree with the commenter. We consider the consideration of breed and behavioral characteristics to be a legitimate method of assessing the needs of individual animals. As noted above, 5 percent additional space will be the norm. Departures must be approved by the attending veterinarian or the Administrator. Further, we disagree that "accepted husbandry practices" are generally inadequate or harmful to animals. In the 1985 amendments to the Act, Congress specifically mandated only that the Department establish regulations to promote exercise in dogs and to provide an environment that promotes the psychological well-being of nonhuman primates. Requiring additional space for nursing kittens, and also for nursing puppies, is a change that the Department feels is necessary in the interest of promoting the general welfare of these animals. We consider the new provisions an improvement over the existing regulations, and disagree that they do not meet Congressional intent.

One commenter stated that nursing queens should be provided a nest box. We do not agree that a nest box is necessary for individually housed queens, and the regulations prohibit the group housing of queens with litters, except in breeding colonies. Based on our experience enforcing the regulations, there has been no indication that nest boxes are needed.

A small number of commenters stated that the proposed regulations were unclear as to whether the Committee or the attending veterinarian has responsibility for determining the necessary additional space for nursing queens. We agree that the provision in question is ambiguous as written, and we are amending this final rule to make it clear that the responsibility for determining the necessary additional space at research facilities belongs to the attending veterinarian.

A number of commenters took issue with the provision proposed in § 3.6(b)(1)(v) (redesignated as § 3.6(b)(2)(iv) in this final rule) that litter pans may be considered part of the floor space if properly cleaned and sanitized. We do not agree with the commenters. Cats will often sit or lie in clean litter pans. A small number of commenters stated that using the term "if properly cleaned and sanitized" implies that dirty litter pans are otherwise acceptable. We do not share the commenters' concerns. The cleaning and sanitization requirements in this rule contain explicit requirements to ensure that all animal areas are kept clean.

One commenter stated that the regulations should encourage the use of "gang cages" with large elevated resting areas for all cats in the institution. We are making no changes based on this comment. Gang cages are not prohibited by the regulations, and may be used if desired.

A small number of commenters stated that the regulations should require that cats be provided with scratching posts. While the use of scratching posts is not prohibited by the regulations, we believe that requiring them is not necessary as a minimum standard in order to promote the cats' health and well-being. Therefore, we are making no changes based on these comments.

As we noted in the "**SUPPLEMENTARY INFORMATION**" of this rule under the heading "**EFFECTIVE DATES**," many commenters pointed out that certain of

the new standards would require affected facilities to make extensive structural changes. The alteration in the minimum space requirements for cats is one such change in the standards. Therefore, in § 3.6(b)(1)(i) of this rule, we are continuing the existing regulations for minimum space requirements for cats for the period prior to February 15, 1994. On and after February 15, 1994, facilities must comply with the minimum space requirements for cats set forth in §§ 3.6(b)(ii) (A) through (C) of this rule (redesignated from §§ 3.6(b)(1) (i) through (iii) of the proposed rule).

Compatibility

In our proposal, we provided that all cats housed in the same primary enclosure would have to be compatible. We proposed to retain the requirement in existing § 3.4(b)(3) that no more than 12 adult nonconditioned cats be housed in the same primary enclosure and to set forth that requirement in proposed § 3.6(b)(2). In addition, we proposed that the following restrictions would apply: Queens in heat could not be housed in the same primary enclosure with sexually mature males, except for breeding; except when maintained in a breeding colony, queens with litters could not be housed in the same primary enclosure with any other adult cats, and kittens under 4 months of age could not be housed in the same primary enclosure with adult cats, other than their dam; and cats with a vicious or aggressive disposition would have to be housed separately.

A small number of commenters specifically supported the provisions regarding compatibility as written. One commenter stated that the compatibility requirements in subpart A should parallel those set forth in subpart D for nonhuman primates. We disagree. The differences in needs between nonhuman primates and dogs and cats makes parallel regulations with regard to compatibility inappropriate.

We are making one change to § 3.6(b)(2) as proposed. Consistent with changes we are making elsewhere in Subpart A in response to comments, we are providing that kittens under 4 months of age may be housed in the same primary enclosure with their foster dams.

Litter

In § 3.6(b)(3), we proposed to retain the existing requirement that in all primary enclosures having a solid floor, a receptacle with litter be provided to contain excreta. A number of commenters stated that litter in a receptacle should be required, whether or not the floor is solid. Upon review of the comments received, we agree that the presence of a litter pan for all cats is necessary to enable them to meet a species behavioral need. We are therefore providing in this final rule that a receptacle with litter be included in all primary enclosures used to house cats.

One commenter recommended that it be required that the litter box be large enough for the cat to stand in, and deep enough for the cat to bury its feces. We believe the requirement that the litter box be large enough to contain excreta and body wastes will sufficiently provide for the health and well-being of the cat, and addresses the commenter's concern for an adequate litter box.

Resting Surfaces

The existing standards for cats in § 3.4(a)(2)(ii) state that there must be a solid resting surface in each primary enclosure that will comfortably hold all occupants at the same time, and that the resting surface must be elevated if the enclosure holds two or more cats. We proposed to require in § 3.6(b)(4) that all such resting surfaces be elevated, even if only one cat is in the enclosure, and to clarify that only low resting surfaces would be counted as part of the minimum floor space. As proposed, the resting surfaces would have to be impervious to moisture, and would have to be either easily cleaned and sanitized, or easily replaceable when soiled or worn.

One commenter stated that low resting surfaces should not be considered part of the floor space because they reduce its usability. A number of commenters requested that we clarify what constitutes a "low resting surface." We agree that additional language would help clarify the intent of the provision. We are therefore providing in this final rule that low resting surfaces that do not allow the space under them to be comfortably occupied by the animal will be counted as part of the floor space.

Cats in Mobile or Traveling Shows

We proposed to provide, in § 3.6(b)(5), that cats in mobile or traveling shows or acts may be kept, while the show or act is traveling from one temporary location to another, in transport containers that comply with all requirements of proposed § 3.14 of subpart A, other than the marking requirements in proposed § 3.14(a)(6). Under the proposal, when the show or act is not traveling, the cats would have to be placed in primary enclosures that meet the minimum requirements of proposed § 3.6. Mobile or traveling shows and acts normally remain in one location for several days and then move to another location, with the movement taking a day or less. Because the animals are less subject to injury in smaller enclosures while traveling, we proposed to allow the use of transport cages during this time. However, under the proposed regulations, when not traveling, the cats would have to be placed in primary enclosures that comply with the minimum space requirements and other requirements of § 3.6. The only commenters who responded to these provisions supported them. We are therefore making no changes to § 3.6(b)(5) of our proposal.

Additional Primary Enclosure Requirements for Dogs—Section 3.6(c)

In proposed § 3.6(c), we retained the formulas in § 3.4(b)(2) of the existing regulations for calculating the floor space for dogs (length of dog in inches + 6) x (length of dog in inches + 6) = required square inches of floor space; required square inches/144 = required square feet). We also proposed to require that the minimum height of a primary enclosure be at least 6 inches above the head of the tallest dog in the enclosure when standing in a normal position.

A small number of commenters supported retaining the existing method of calculating space requirements for dogs. A large number of commenters recommended that the existing minimum space requirements for dogs be doubled. One commenter stated that breeding dogs housed by wholesale commercial breeders should be allowed triple the minimum floor space, because such dogs spend their lives in these facilities. We do not agree that the changes recommended by the commenters are necessary. We consider the proposed floor space requirements for dogs, which are the same as those already in the regulations, to be adequate. This is especially so in light of the exercise requirements included in this final rule, which will require that each dog be provided adequate opportunity for exercise.

A small number of commenters recommended that space requirements for dogs be based on weight, as are those in the NIH Guide. While space requirements based on weight are appropriate for cats, whose body conformation is similar from breed to breed, the wide difference in body configuration among breeds of dogs makes space based on weight inappropriate. For example, as we discussed in our original proposal, the difference in body conformation between a bulldog and a greyhound

would make a formula based on their weight inappropriate.

The proposed regulations specified that the required floor space would apply for each dog housed in a group situation with other dogs. Several commenters recommended that, for group housing situations, the formula for determining minimum floor space be reduced to 32 percent for each dog added to the enclosure after the first dog. We do not consider it reasonable or logical to conclude that the second or third dog in a primary enclosure needs 68 percent less space than the first dog, and we are making no changes based on these comments.

One commenter stated that, in determining minimum space requirements, dogs should be measured in a straight line from the tip of the nose to the base of the tail in a normal standing position. We agree, and measurements for space are already being conducted in the manner described by the commenter.

Several commenters recommended that the regulations allow dogs and cats to be housed for up to 14 days in primary enclosures that do not meet the standards, to permit cleaning of primary enclosures and in emergencies. We do not consider such a provision reasonable or necessary. Cleaning should not take a significant length of time. Our experience has demonstrated that emergencies should not provide an exception to the minimum standards for primary enclosures.

We proposed that, as with cats, nursing mothers would have to be provided with additional space. In proposed § 3.6(c)(1)(ii), we set forth the requirement that each bitch with nursing puppies be provided with an additional amount of floor space, based on her breed and behavioral characteristics, and in accordance with generally accepted husbandry practices as determined by the attending veterinarian. We proposed that if the additional amount of floor space for each nursing puppy is less than 5 percent of the minimum requirement for the bitch, such housing must be approved by the Committee in the case of a research facility, and by the Administrator in the case of dealers and exhibitors.

As discussed in this supplementary information under the heading "Additional Primary Enclosure Requirements for Cats—§ 3.6(b)," the regulations as proposed do not clearly state whether the attending veterinarian or the Committee is responsible for approving additional space for nursing puppies that is less than 5 percent of the minimum space for the bitch. In this final rule, we are clarifying that it is the attending veterinarian who is responsible for such approval.

A number of commenters opposed in general the proposed provisions for percentage increases of floor space. A small number of commenters specifically supported the provisions regarding additional space for nursing bitches. A small number of commenters stated that space requirements for nursing bitches should be solely at the discretion of the attending veterinarian. We disagree. We consider 5 percent extra space per nursing puppy a standard that will be appropriate in most cases. We recognize, however, that situations may arise where it may be unnecessary or even detrimental to move a nursing bitch to an enclosure that meets the 5-percent standard. Only in those cases do we expect the attending veterinarian to approve primary enclosures that do not allow at least 5 percent additional space for each puppy.

A small number of commenters stated that only nursing bitches with puppies 3 weeks of age or older should be provided with additional floor space. We disagree with the commenters' recommendation, for the same reasons set forth in this supplementary information for cats with nursing kittens.

A small number of commenters recommended that the regulations provide for 10 percent additional space per nursing puppy in a litter, rather than 5 percent as proposed. We consider 5 percent to be an adequate amount of additional space, given the size of nursing puppies, and the fact that they do not generally move very far from the dam during most of their nursing period.

Several commenters stated that the regulations regarding resting surfaces for cats should be applied to dogs. Because of the behavioral differences between dogs and cats, we do not consider it necessary to require elevated resting surfaces for dogs. However, as we discuss in this supplementary information under the heading "Primary Enclosures: General Requirements—§ 3.6(a)," we are requiring that resting surfaces be provided for both dogs and cats when the floor of a primary enclosure is made out of wire.

A number of commenters addressed the height requirements set forth in proposed § 3.6(c)(1)(iii). A small number of these commenters supported these provisions as written. Others either stated in general that the proposed height requirement was excessive, or recommended specific changes to the proposed provisions. A small number of commenters stated that the regulations should require that the top of the dogs' ears not touch the top of the primary enclosure while the dogs are standing erect or sitting We disagree Based on our experience enforcing the regulations, we consider the requirement that the cage be at least 6 inches above the head of the tallest dog in the enclosure, when in a standing position, to adequately address the commenters' concerns.

A small number of commenters recommended that the minimum height be increased from that proposed. Most of these commenters stated that primary enclosures should be large enough to allow dogs to make all normal postural adjustments, such as standing on hind legs and holding the tail aloft. We do not consider such a change necessary or appropriate. The regulations are by law minimal standards for the well-being of the animals. We do not consider a dog's standing on its hind legs to be a frequent enough postural adjustment to require its inclusion as a minimal standard With the implementation of the exercise requirements in this final rule, dogs will have adequate opportunity for activity. One commenter recommended that the interior height of the cage should be 6 inches above the ears of the tallest dog when standing. We are making no changes based on this comment. Six inches above the head will accommodate the tallest standing ears for most dogs.

As we noted in the "Supplementary Information" of this rule under the heading "Effective Dates," many commenters pointed out that certain of the new standards would require affected facilities to make extensive structural changes. The alteration of the height requirement for primary enclosures containing dogs is one such change in the standards. Therefore, in § 3.6(c)(1)(iii) of this rule, we are continuing, for the period prior to February 15, 1994, the existing minimum height requirement for primary enclosures containing dogs. On and after February 15, 1994, facilities must comply with the new height requirement, as set forth in § 3.6(c)(1)(iii).

Dogs on Tethers

In § 3.4(b)(2)(ii) of the existing regulations, requirements are set forth for dog houses with chains used as primary enclosures for dogs kept outdoors. In § 3.6(c)(2) of the proposed regulations, we expanded those regulations, and proposed to apply the expanded regulations to dogs that are tethered by any means, and not just by chains. We proposed to retain the existing requirement that a dog that is tethered be kept from being entangled,

and to add the requirements that the dog not be able to come into physical contact with other dogs in the housing facility, and be able to roam to the full range of the tether. We proposed to retain the existing requirement that the tether be of the type commonly used for the size dog involved, and that the tether be attached to the dog by a well-fitted collar. Additionally, we proposed to explicitly require that the collar must not cause trauma or injury to the dog. The proposed regulations included the following examples of types of collars that would be prohibited: collars made of wire, flat chains, chains with sharp edges, and chains with rusty or nonuniform links. As in the existing regulations, we proposed that the tether would have to be at least three times the length of the dog as measured from the tip of its nose to the base of its tail. We also proposed to require that the tether be attached to the front of the dog's shelter structure or to a post in front of the shelter structure, and that it allow the dog convenient access to the shelter structure and to food and water containers.

Several commenters specifically supported the proposed provisions as written. A small number of commenters either opposed the use of tethers altogether or supported the use of tethers for temporary use only. We do not believe that the use of appropriate tethers is harmful to dogs. Many domestic pets are so restrained with no harmful effect. We are therefore making no changes based on these comments. One commenter recommended that the regulations require that the tether length for dogs housed by wholesale dog breeders be six times the length of the dog, but not less than 15 feet long. We do not believe this recommended change is necessary for the well-being of dogs. Requiring tethers that are at least three times the length of the dog allows the dog sufficient movement in both a forward and a lateral direction.

Several commenters stated that the regulations should prohibit the placement of entangling objects within the reach of dogs on tethers, or otherwise prevent the dogs from being accidentally hanged. Each of these concerns are addressed in the proposed provisions, and we are making no changes based on these comments.

We proposed that dog housing areas where chains or tethers are used must be enclosed by a perimeter fence of sufficient height to keep unwanted animals out, and to keep animals the size of dogs, raccoons, and skunks from going through or under it. We also proposed to require that fences less than 6 feet high must be approved by the Administrator. Several commenters stated that the expense of constructing a fence adequate to meet the proposed regulations would be cost-prohibitive. While we are sensitive to the costs involved in complying with the regulations, we are obligated under the Act to require that the dogs are confined with adequate protection for humane care. A perimeter fence is necessary to confine dogs that escape from their tethers and to restrict the entrance of potential predators.

One commenter stated that a 4-foot perimeter fence would be just as effective in preventing the entrance of animals as a 6-foot fence. Based on the need to contain and/or exclude dogs and other animals from the primary enclosure, we consider 6 feet to be the minimum necessary fence height in most cases. However, the regulations as proposed allow for varying situations and needs by providing for approval by the Administrator of fences less than 6 feet high.

As we noted in the "Supplementary Information" of this rule under the heading "**EFFECTIVE DATES**," many commenters pointed out that certain of the new standards would require affected facilities to make extensive structural changes. The addition of the requiremant for a perimeter fence in § 3.6(c)(2) as proposed (designated as § 3.6(c)(2)(ii) in this rule) is one such change in the standards. Therefore, in § 3.6(c)(2)(ii) of this rule, we are providing that facilities must comply with the provisions regarding such perimeter fences on and after February 15, 1994.

Compatibility

The proposal provided that all dogs housed in the same primary enclosure would have to be compatible. We proposed to retain the provision in existing § 3.4(b)(2) limiting to 12 the number of nonconditioned adult dogs permitted to be housed in the same primary enclosure, and to set it forth in proposed § 3.6(c)(3). Additionally, that proposed paragraph contained the following provisions: bitches in heat must not be housed in the same primary enclosure with sexually mature males, except for breeding; bitches with litters must not be housed in the same primary enclosure with other adult dogs; except when maintained in a breeding colony; puppies under 4 months of age must not be housed in the same primary enclosure with adult dogs, other than the dam; and dogs with a vicious or aggressive disposition must be housed separately.

One commenter specifically supported the proposed provisions as written. Another commenter stated that up to 12 conditioned, as well as nonconditioned, dogs should be allowed in the same enclosure if they are compatible. Although the proposed regulations limit the number of nonconditioned dogs in an enclosure, there is no limit on the number of conditioned dogs per enclosure. One commenter stated that the regulations should limit to four the number of dogs per enclosure, whether the animals are conditioned or nonconditioned. We do not agree that such a change is necessary. Since 1967, the regulations have allowed for 12 nonconditioned dogs to be housed together. During that time, there have been few reported problems stemming from the number of dogs housed together. Whatever the number of dogs housed together, they must be compatible.

One commenter stated that because bitches in whelp require isolation, they should be able to be housed without seeing, hearing, or touching other animals. We do not believe that the commenter's recommendation warrants a change in the regulations. There is nothing in the regulations to preclude the housing described, as long as the dog is provided adequate space, care, and attention.

One commenter requested that the regulations clarify what is meant by "vicious or aggressive" behavior. We consider these terms to be self-explanatory, requiring no additional definition in the regulations.

We are making one change in § 3.6(c)(3) as proposed. Consistent with changes we are making elsewhere in subpart A in response to comments, we are providing that puppies under 4 months of age may be housed in the same primary enclosure with their foster dam.

Dogs in Mobile or Traveling Shows or Acts

We proposed to provide, in § 3.6(c)(4), that dogs in mobile or traveling shows or acts may be kept, while the show or act is being transported from one temporary location to another, in transport containers that comply with all requirements of proposed § 3.14 of subpart A, other than the marking requirements in § 3.14(a)(6). We proposed that when the show or act is not traveling, the dogs would have to be placed in primary enclosures that meet the minimum requirements of § 3.6. The only commenter who addressed these provisions supported them as written,

and we are making no changes in this final rule.

Innovative Primary Enclosures for Dogs and Cats

We encourage the design and development of primary enclosures that promote the well-being of dogs and cats by providing them with sufficient space and the opportunity for movement and exercise. Accordingly, we provided in § 3.6(d) of the proposal that innovative primary enclosures not precisely meeting the floor area and height requirements provided for dogs and cats, but that do provide the dogs and cats with a sufficient volume of space and the opportunity to express species-typical behavior, could be used at research facilities when approved by the Committee, and by dealers and exhibitors when approved by the Administrator.

Many commenters specifically supported the proposed provisions regarding innovative enclosures as written. Very many more commenters objected to what they termed a "loophole" that would permit smaller primary enclosures than those otherwise required by the regulations. We consider adequate space to be one of the primary factors in the humane treatment of animals regulated under the Act. The specific space requirements we set forth in our proposal were based on the best current information available to us, including our experience enforcing the regulations. However, we believe it would be unrealistic to conclude that the design standards currently in general use cannot be improved upon, based on continuing research in engineering and animal behavior. Establishing a mechanism for approval of innovative enclosures will likely foster such research. It is also important to note that innovative enclosures will not qualify for approval unless they provide the animals with a sufficient volume of space and the opportunity to express species-typical behavior, and that such enclosures and the behavior of the housed dogs and cats will be subject to APHIS observation and inspection.

A small number of commenters stated that the attending veterinarian at research facilities, and not the Committee, should be responsible for approval of innovative primary enclosures. We do not agree. The authority to grant exceptions to the general standards has been delegated to the attending veterinarian in certain cases in these regulations, for situations involving the health and well-being of the animals. Authority to approve innovative primary enclosures should be retained in the Committee.

Several commenters stated that the approval of innovative primary enclosures at research facilities should be the responsibility of the Administrator, not the Committee. We disagree. The Committee at research facilities is comprised of individuals who represent both professional and community interests. We consider such a body the appropriate one for deciding on the approval of innovative enclosures. Again, it is important to note that any enclosures that do receive approval at research facilities will be subject to APHIS inspection.

A small number of commenters stated that the regulations should include the criteria to be used in evaluating innovative primary enclosures. Such criteria already exist in the regulations as proposed, and we are therefore making no changes based on these comments.

Reformatting

We are making several nonsubstantive formatting changes to subpart A to set forth its sections in a more logical order. We are redesignating § 3.7 as proposed as § 3.12, and are redesignating proposed §§ 3.8, 3.9, 3.10, 3.11, and 3.12 as §§ 3.7, 3.8, 3.9, 3.10, and 3.11, respectively.

Exercise and Socialization for Dogs—Section 3.7 (Redesignated as Section 3.8 in this Final Rule)

In accordance with the 1985 amendments to the Act, in developing our proposed rule, we set forth standards for the exercise and socialization of dogs, and proposed a new § 3.7, titled "Exercise and socialization for dogs" (redesignated in this final rule as § 3.8). We proposed that in cases where a facility chooses not to house all dogs in groups, or where certain dogs are housed individually for research reasons, the facility would be responsible under the provisions of this revised proposal for developing a program of alternatives to group housing to provide the dogs adequate opportunity for exercise, as discussed below.

We set forth provisions for group housing in proposed § 3.7(b), and proposed to allow dogs over 12 weeks of age to be maintained in compatible groups unless (1) Housing in compatible groups is not in accordance with a Committee-approved research proposal at a research facility; (2) in the opinion of the attending veterinarian, such housing would adversely affect the health or well-being of the dog(s); or, (3) a dog exhibits aggressive or vicious behavior.

A very large number of commenters supported the concept of requiring the exercise of dogs. A smaller number of commenters took an opposing view, and recommended that all provisions for exercise of dogs be removed from the proposed regulations. Some commenters opposed the proposed exercise requirements because they considered them cost prohibitive. The responsibility for establishing standards for the exercise of dogs is one that we are charged with by Congress, and is one that we must meet. In doing so, we take seriously our obligation to promote the well-being of the animals protected by the regulations.

A number of commenters expressed reservations concerning the group housing of dogs, stating that the behavior of dogs in packs is unpredictable and dangerous. As we discussed in our proposal, while we agree that such dangerous behavior is frequently observed in animals that roam at large, we do not believe it is a significant problem with dogs that are in captivity and subject to human care and control. In cases where individual dogs exhibit aggressive or vicious behavior, the proposed regulations would provide for solitary housing of such animals.

Many commenters stated that they were in favor of socialization for animals. A number of other commenters stated that references to socialization should be removed from the proposed regulations, because requirements for socialization were not included in the 1985 amendments to the Act. While we consider socialization in many cases to be an integral part of the provision of adequate exercise, the commenters are correct in stating that the Act does not include requirements for socialization. We are therefore removing references to socialization from § 3.7 as proposed (redesignated in this final rule as § 3.8), and are removing references to social grouping from § 3.12 as proposed (redesignated in this final rule as § 3.7).

We proposed in § 3.7(c)(4) that written standard procedures for provision of the opportunity for exercise must be prepared by each dealer, exhibitor, or research facility at which dogs are housed, held, or maintained. We proposed that this set of procedures would have to be made available to APHIS, and, in the case of research facilities, to officials of any pertinent funding Federal agency.

We proposed in § 3.7(a) that dogs over 12 weeks of age, except bitches with litters, housed, held, or maintained in a regulated facility must be provided the opportunity for exercise regularly if they are kept individually in cages, pens, or

runs that provide less than two times the required floor space for that dog, as indicated in proposed § 3.6(c)(1). We proposed additionally that if only one dog is housed, held, or maintained at a facility, the single dog must receive positive physical contact with humans at least daily.

In proposed § 3.7(b), we provided that dogs over 12 weeks of age would not require additional opportunity for exercise regularly if they were housed, held, or maintained in groups in cages, pens, or runs providing at least 100 percent of the required space for each dog if maintained separately.

Many commenters expressed opposition to primary enclosures for exercise larger than those otherwise required for dogs. They stated that increased enclosure sizes will not increase activity. We disagree that increasing enclosure size is not a means of providing dogs with the opportunity for exercise. However, under the regulations as proposed, facilities are not restricted to increasing cage size to provide for exercise. For example, group housing of dogs is an effective alternative to increasing cage size for individual dogs, as is removal of the dog from its primary enclosure for alternative forms of exercise.

A small number of commenters stated that purpose-bred dogs are acclimated to the existing enclosure sizes and should be exempt from the proposed exercise requirements. A large number of commenters stated that scientific evidence does not support that dogs housed in less than two times their minimum space need additional exercise opportunities. Many of these commenters stated that the dogs' exercise needs are being met with existing housing. We disagree. Not all dogs are maintained in an environment that permits exercise and Congress concluded that the existing minimum space standards for dogs were not in themselves sufficient to allow for adequate opportunity for exercise.

Several commenters opposed the requirement for positive physical contact for dogs housed alone in a facility, either in general or in cases where the dog is not socialized to humans. A small number of commenters stated that daily interaction with humans should be required for all dogs. One commenter recommended that positive physical contact must total at least 60 minutes daily, and be provided to dogs isolated at a facility, as well as to the sole animal at a facility. The commenter supplied no data to support the recommendation for 60 minutes of positive physical contact, and we see no need for contact of that duration. While we do not consider it necessary for all dogs to have daily interaction with humans in all cases, upon review of the comments, we agree that there is little practical difference between an animal that is the sole dog at a facility and dogs that are isolated from other dogs at a facility. We are therefore providing in § 3.8(c)(2) of this final rule that when dogs are housed at a facility without sensory contact with other dogs, they must be provided with positive physical contact with humans at least daily.

One commenter expressed concern that the term "positive physical contact" is so vague that cagewashing and feeding will be so termed. We do not share the commenter's concern. The definition of "positive physical contact" in Part I of the regulations clearly states the meaning of the term.

A number of commenters recommended that the regulations clarify that facility standards for exercise be made available to APHIS "upon request." We agree that such an amendment would clarify the intent of our proposal and are therefore adding the words "upon request" in this final rule. Also, to further clarify the intent of our proposal, we are making certain changes regarding the requirement for a plan for the exercise of dogs. We are specifying in this final rule that such a plan must be appropriate and must be approved by the attending veterinarian. Additionally, we are making a formatting change to move from § 3.7(c)(4) of the proposal (redesignated as § 3.8(c)(4) in this final rule) the requirement that written procedures for exercise be developed, and are moving that provision to the introductory text of § 3.8 (redesignated in this final rule from § 3.7 of the proposal).

Methods of Exercise for Dogs—Section 3.7(c) (Redesignated in this Final Rule as Section 3.8(c))

We proposed in § 3.7(c)(1) of the proposal that exact methods and periods of providing the opportunity for exercise be determined by the attending veterinarian, with, at research facilities, consultation with and review by the Committee. We proposed to provide in § 3.7(c)(2) that the opportunity for exercise may be provided in a number of ways, such as: (1) Group housing in cages, pens, or runs that provide at least 100 percent of the space required for each dog under the minimum floor space requirements set forth in proposed § 3.6(c)(1); (2) maintaining individually housed dogs in cages, pens, or runs that provide at least twice the minimum floor space required by proposed § 3.6(c)(1); (3) providing access to a run or open area; (4) providing positive physical contact with humans through play, grooming, petting, or walking on a leash; or (5) other similar activities.

A number of commenters supported allowing for the professional judgment of the attending veterinarian in developing plans for the exercise of dogs. A very large number of other commenters stated that the regulations should require daily release of dogs from their enclosures for a specified period of time, from ½ hour to 1 hour. One commenter stated that the regulations should require that dogs be exercised at least twice daily. Another recommended that exercise be required at least one day out of each weekend or holiday. Several commenters expressed the opinion that dogs cannot be adequately exercised in less than four times the floor space otherwise required for housing. Several commenters stated that facilities that do not utilize APHIS-recommended methods of exercise should be required to submit their proposed exercise plan to the Administrator for prior approval. One commenter expressed concern that if APHIS does not specify exact methods and duration of exercise, the plans for exercise developed by the facilities may allow absurdly low levels of exercise. We do not agree that requiring a specified period or frequency for exercise would be appropriate in all cases. Such a requirement would not take into account variation among the types of dogs and the use for which they are being held, and would be too restrictive to be applied generally to diverse facilities. The regulations as proposed, calling for a plan for meeting the exercise needs of dogs at each facility, will allow each facility to meet the requirements of the regulations in the manner most appropriate to the facility and to the animals housed there.

In order to clarify our intent with regard to exercise, we are making several changes to § 3.7(c) as proposed (redesignated as § 3.8(c) in this final rule). We are clarifying that "exact methods and periods of providing the opportunity for exercise," as proposed, more specifically means "the frequency, method, and duration of the opportunity for exercise." Additionally, we are clarifying § 3.8(c)(1) in this final rule to make clear that review by the Committee at research facilities of the methods and periods of providing exercise involves approval by the Committee. With regard to examples we provided of methods of exercise, we are clarifying that providing access to a run or open area is appropriate if done "at the frequency and duration prescribed by the attending veterinarian." Finally,

we are removing "providing positive physical contact with humans that encourages exercise" from the listing of examples of methods of providing exercise. In order to place greater emphasis on the benefits of positive physical contact with humans, we are providing in § 3.8(c)(2) of this final rule that dealers, exhibitors, and research facilities should, in developing their plan, consider providing positive physical contact with humans that encourages exercise through play, walking on a leash, or similar activities.

A number of commenters expressed the opinion that not requiring group-housed dogs to be released for exercise is contrary to Congressional intent. One commenter recommended a return to the specific run size dimensions set forth in our original proposal. We disagree that Congressional intent was to require specific methods of exercise for dogs, such as release from their primary enclosures. As amended, the Act requires that the regulations include minimum requirements for the exercise of dogs. Based on the research available to us, and on our own experience enforcing the regulations, it is evident that one of the most effective means of promoting exercise in dogs is to house the dogs in groups.

A small number of commenters expressed reservations regarding group housing of dogs, stating either that such housing can lead to fighting when the groups are unstable, that group housing might conflict with other agencies' standards for testing protocols, or that group housing can pose a hazard to handlers. One commenter recommended that exemptions to group housing should be made on a case-by-case basis. As proposed, group housing is not required. It is merely included as one method of complying with the regulations regarding the exercise of dogs. We are therefore making no changes based on the comments.

Several commenters stated that group-housed dogs that each have 100 percent of their minimum space requirement will not have sufficient room for exercise. We do not agree. Based on the evidence available to us, such an amount of space will provide adequate room for group-housed dogs to interact and play.

Several commenters stated that even dogs housed in enclosures with twice the minimum space required should be released for exercise. We disagree. We are confident that by allowing for additional space for dogs housed individually, and by encouraging group housing, the proposed regulations regarding doubling the minimum space will promote adequate exercise for dogs.

A small number of commenters stated that dogs housed in enclosures totalling 150 percent of their minimum space should not have to be released for exercise. We do not agree that the amount of space recommended by the commenter will be sufficient for dogs lacking other opportunities for exercise and are making no changes based on the comment.

One commenter stated that the provision that twice a dog's minimum space offers adequate room for exercise is a rigid engineering standard that should be deleted. Although we agree that the provision in question is an easily measurable one, it is only one option among many that a facility may choose to ensure proper exercise for dogs. As such, we do not agree that it is unnecessarily rigid.

One commenter recommended that dogs housed individually in acceptable pens, runs, or cages be considered as meeting the exercise requirements if they can make visual contact with one or more other dogs. We agree with the commenter in cases where the individually housed dog's enclosure provides at least twice its minimum space requirement. If the enclosure falls short of that size, however, we continue to believe that the dog must be provided other means of exercise. While we encourage visual contact among the dogs in a facility, we do not consider such contact a substitute for the contact provided by group housing. For the same reason, we do not agree with the commenter who recommended that individually housed dogs in runs should not be required to have twice the minimum space requirements if they can "muzzletouch" each other.

One commenter recommended that it be required that bitches with litters be provided an additional opportunity for exercise if they are housed in primary enclosures providing less than four times the minimum space required for the bitch. We are making no changes based on this comment. We consider the "twice-the-minimum" requirements proposed, in tandem with the additional minimum space required for bitches with litters, to be adequate to ensure that bitches with litters are provided adequate space for exercise.

A small number of commenters stated that the regulations should provide no variances from the exercise requirements. The only exemptions from exercise will be provided in cases where an approved protocol at a research facility calls for such an exemption, and in cases where it would be injurious to the dog's health to exercise, as determined by the attending veterinarian. The first type of exemption is in accordance with our statutory obligation not to interfere with approved research. The second is necessary for the well-being of the animal.

A number of commenters stated that records of release for exercise should be maintained for review by APHIS inspectors. A small number of other commenters stated that records of dog exercise should be made available to the Committee, the Department, and the general public. We do not agree that it is necessary for the facility to keep records of exercise to ensure compliance with the regulations. The facility's plan will be available to APHIS and, in the case of research facilities, to officials of any pertinent funding Federal agency. We are confident that the requirement for this written plan, together with inspections by APHIS personnel, will ensure that the dogs at each facility receive sufficient exercise.

Several commenters stated that social interaction for dogs cannot substitute for physical exercise, regardless of the cage size. While we disagree with the commenters' assertion that social interaction cannot adequately stimulate exercise, we do agree upon review of the comment that certain of the methods suggested in the proposal for providing exercise would not be adequate. We are therefore amending § 3.7(c)(2)(iv) as proposed (redesignated as § 3.8(c)(2)(iv) in this final rule) to delete grooming and petting as forms of positive physical contact with humans that may provide the opportunity for exercise. Additionally, we are adding language, both in § 3.8(c)(2)(iv) and § 3.8(a) to clarify that positive physical contact with humans must be of the sort that encourages exercise.

A small number of commenters urged that the Department carefully scrutinize the records pertaining to exercise, and develop a system of outside, impartial observation to ensure that facilities actually use exercise enclosures. A system of impartial observation already exists with regard to enforcement of the regulations. Only Department personnel are authorized by law to conduct inspections.

A small number of commenters stated that exercise provisions in the regulations should not apply to dogs held for less than 1 week. We believe that the exercise needs of a dog do not necessarily depend on how long it is held in a facility, and that such an across-the-board exemption for dogs held less than 1 week would be inappropriate.

A number of commenters addressed the fact that we supplied a number of

examples of ways adequate exercise might be provided. A large number of commenters recommended that the examples be deleted, because the actual methods of exercise will be determined based on professional judgment at each facility. We see no advantage in deleting the examples provided. They in no way limit the facility in developing an exercise plan, and we consider them helpful as recommendations of satisfactory methods of providing exercise.

A small number of commenters asserted that development of plans and standards for exercise should be solely the responsibility of the Department. We do not agree. Such across-the-board requirements would not allow sufficient flexibility and latitude for varying conditions, and would be unnecessarily restrictive.

One commenter stated that the regulations should stipulate that study procedures may not be substituted for exercise requirements. The requirement as proposed was that dogs be provided the opportunity for exercise. We do not consider it reasonable to assume that no study procedures will provide the dogs involved with adequate exercise. We therefore do not consider it appropriate to make the change recommended by the commenter. A small group of commenters addressed a similar issue, and stated that animals used in research protocols involving forced exercise should be exempt from required exercise. Whether such animals should be exempted from the exercise standards will depend on the situation. If the research protocol provides the animals with adequate exercise, then they will not need additional exercise. Also, in cases where the research protocol calls for specific limits on the exercise provided, it would not be required that the animals exceed those limits. This is in accordance with § 2.28(k)(1) of part 2 of the regulations, which provides that exceptions to the standards in part 3 of the regulations may be made when such exceptions are specified and justified in the proposal to conduct an activity and are approved by the Committee.

Several commenters stated that it would be sufficient to abide by the NIH Guide for exercise of dogs. We disagree. The Act specifically requires us to establish regulations to promote exercise for dogs. The NIH Guide is just that, containing guidelines and not regulations.

Although the proposal did not prohibit exercise by such means as treadmills, carousels, or swimming, it did specify that such methods would not be considered as meeting the exercise requirements of the proposed regulations. One commenter specifically supported the inclusion of such examples. A number of commenters stated that the examples provided were unjustified. We disagree. Congressional intent with regard to the Act was to give dogs an opportunity for exercise, not to force them to exercise.

One commenter stated that the exercise standards for dogs should be the same as the standards for the psychological well-being of nonhuman primates. We do not agree. The differences in species behavior and needs, and the distinct statutory requirements for dogs and nonhuman primates, make parallel provisions inappropriate.

Exemptions from Exercise—Section 3.7(d) (Redesignated as Section 3.8(d) in this Final Rule)

We proposed in § 3.7(d)(1) that if, in the opinion of the attending veterinarian, it is inappropriate for certain dogs to exercise because of their health, condition, or well-being, the dealer, exhibitor, or research facility may be exempted from meeting the exercise requirements for those dogs. As proposed, such an exemption would have to be documented by the attending veterinarian and, unless the basis for the exemption were a permanent condition, the exemption would have to be reviewed at least every 30 days by the attending veterinarian.

We proposed additionally that research facilities may be exempted from the exercise requirements for dogs if the principal investigator determines for scientific reasons set forth in the research proposal that it is inappropriate for certain dogs to exercise. As proposed, such an exemption would have to be documented in the Committee-approved proposal and would have to be reviewed at appropriate intervals as determined by the Committee, but not less than annually.

As proposed, records of any exemptions would have to be maintained and be made available to USDA officials or any pertinent funding Federal agency upon request.

A number of commenters supported the provisions as proposed. A number of commenters stated that research facilities should be permitted to make exemptions for certain study situations without documentation being required. Such an allowance would be contrary to the Act and we are making no changes based on these comments.

Many commenters recommended that rather than require review by the attending veterinarian every 30 days, it should be required that exemptions to exercise be approved in the standard procedures for exercise. A number of other commenters stated that the exemptions should have to be reviewed only "as needed." One commenter recommended that it be required that review of exemptions be carried out on a daily basis, to ensure continuity and assist inspectors. We are making no changes based on these comments. In most cases,exemptions from exercise will be of a temporary nature. Allowing the exemptions to continue for long periods of time without review would not comply with the intent of the Act. However, we do expect conditions warranting exemptions to continue for more than a day at a time, and consider daily review unnecessary.

One commenter stated that it should be required that documentation for exemptions be "accessible," not made available for review. We do not consider there to be any substantive difference between making records accessible and making them available, and we are making no changes based on this comment.

A large number of commenters stated that the recording of an exemption for exercise is not necessary, because an inspector can verify compliance visually. We do not agree. Without written documentation of exemptions, it will be virtually impossible for inspectors to conduct an adequate evaluation of whether dogs are being exercised in accordance with the regulations.

One commenter stated that the regulations should require that exemptions be documented in the animals' medical records, rather than in separate records. We are making no changes based on this comment. The regulations do not require that medical records be kept for each animal; nor do they prohibit exemptions from exercise from being recorded on such records. In any case, the record of any exemptions would have to be made available to the Department.

Feeding—Section 3.8 (Redesignated as § 3.9 in this Final Rule)

In proposed § 3.8(a), concerning feeding requirements for dogs and cats, we proposed to make minor changes to the feeding requirements in existing § 3.5(a). In addition to the existing provisions, we proposed to require that food given to a dog or cat be appropriate for the animal's age.

We proposed to make minor additions in § 3.8(b) to clarify that food receptacles must be used for dogs and cats, and must be located so as to

minimize contamination by pests as well as by excreta, and so as to be protected from rain or snow. Under the proposal, feeding pans would either have to be made of a durable material that can be easily cleaned and sanitized, or be disposable and discarded after each use. We proposed to require that food containers that are not discarded be cleaned daily and be sanitized before being used to feed a different dog or cat or social grouping of dogs or cats, and, as required by the existing regulations, be sanitized at least once every two weeks. We proposed to require that both nondisposable food receptacles and self-feeders be kept clean, and be sanitized in accordance with § 3.10(b) of the proposal, which would require that they be sanitized at least once every two weeks, as often as necessary to keep them clean and free from contamination, and before being used to feed another dog or cat or social grouping of dogs or cats. We proposed that in cases where groups of dogs or cats are housed together, it would not be necessary to sanitize the receptacle between each feeding by a different dog or cat, but rather between use by different social groups.

A number of commenters specifically supported the provisions of proposed § 3.8 as written. Several commenters stated that it would be impossible to ensure that all animals will have access to food in group housing situations. We believe that whatever practical problems might have to be met to provide each dog and cat access to food each day, they cannot justify ignoring the feeding needs of the animals housed in a facility, and we are making no changes based on these comments. Several commenters recommended that multiple feeding sites be provided for animals housed in groups. We believe that the provisions as proposed are adequate with regard to this concern. If certain dogs or cats are not eating because of lack of access to a feeding site, then multiple feeding sites could be one solution. Whatever the mechanism for ensuring it, the end result must be that each animal is fed daily.

One commenter stated that, in group housing, there is no way to ensure that food will remain uncontaminated. We are making no changes to our proposal based on these comments. While we agree that the food might not always remain clean after it is offered to the dogs or cats, it is possible and necessary to ensure that the food is in appropriate condition at the time it is offered.

Several commenters stated that the regulations should require that weaned puppies and kittens up to the age of 16 weeks be fed solid food 3 times a day, with feeding frequency reduced to twice daily after 16 weeks of age. While we encourage giving such dogs individual attention wherever possible, we do not believe that it is necessary to the health and well-being of such animals to require in each case that they be fed more frequently than once a day. We believe further that the needs of these animals would be met by the requirement in the proposed regulation that the diet provided be appropriate for the animal's age and condition, and that the food provided be of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal.

Several commenters stated that cats should be fed more often than as proposed, because domestic cats take a number of small meals throughout the day. We consider once-a-day feeding, as proposed, to be an appropriate minimum for most situations. If specific animals are suffering because of inadequate feeding, the regulations require that they must be fed with sufficient frequency to provide adequate veterinary care.

One commenter recommended that the regulations require that feeders be cleaned daily and sanitized every 7 days to help break recurrent cyclical infection. We believe that the regulations we proposed already address the commenter's concerns regarding the prevention of infection, and are making no changes based on the comment. Under the proposed regulations, feeders must be kept clean. Sanitization must be carried out at least every 2 weeks, or as often as necessary to prevent an accumulation of dirt, debris, food waste, excreta, and other disease hazards.

Watering—Section 3.9 (Redesignated as Section 3.10 in this Final Rule)

Existing § 3.6 contains provisions for offering liquids to dogs and cats and for the cleaning and disinfection of watering receptacles. Under § 3.9 of the proposed rule, we proposed to continue to require that potable water be offered at least twice daily, if it is not continually available, and proposed to add the requirement that water receptacles be sanitized before being used to water a different dog or cat or social grouping of dogs or cats.

A small number of commenters specifically supported these provisions as written. A number of commenters recommended that potable water be available to dogs and cats at all times, unless restricted by a veterinarian. Others recommended more frequent watering in hot weather. One commenter stated that the requirement for twice daily watering is unenforceable, because inspectors will not be present 24 hours a day to carry out verification. Upon review of the comments, we agree that provision should be made for additional periods of watering when necessary. However, based on our experience enforcing the regulations, we do not consider it necessary to require in all cases that water be provided at all times. We are therefore providing in this final rule that if potable water is not continually available to the dogs and cats, it must be offered as often as necessary to ensure their health and well-being, but not less than twice daily for at least 1 hour each time, unless restricted by the attending veterinarian.

A small number of commenters stated that it should be required that water receptacles be cleaned and sanitized more often than as proposed. For the reasons we discussed regarding food receptacles under the preceding heading, we are making no changes based on these comments.

A small number of commenters recommended that water receptacles be of such construction so as not to cause injury or discomfort to the dogs and cats. Based on our experience enforcing the regulations, we do not consider the commenters' concerns to be a practical problem requiring regulation, and we are making no changes based on these comments.

Cleaning of Primary Enclosures—Section 3.10(a) (Redesignated as Section 3.11(a) in this Final Rule)

We proposed to revise and reword the provisions in existing § 3.7, and to include them in proposed § 3.10, to clarify the intended requirements for sanitation and other forms of hygiene. We proposed to title the revised section "Cleaning, sanitization, housekeeping, and pest control."

We proposed to require that excreta and food waste must be removed from primary enclosures daily, and from under primary enclosures as often as necessary to prevent an excessive accumulation of feces and food waste, to prevent soiling of the dogs and cats contained in the primary enclosures, and to reduce disease hazards, insects, pests, and odors. We also proposed that the pans under primary enclosures with grill-type floors, and the ground areas under raised runs with wire or slatted floors, must be cleaned as often as necessary to prevent accumulation of feces and food waste and to reduce disease hazards, pests, insects, and odors.

We also proposed to require that when using water to clean a primary enclosure, whether by hosing, flushing, or other method, a stream of water must not be directed at a dog or cat. Additionally, we proposed that when steam is used to clean a primary enclosure, dogs and cats must be removed or adequately protected to prevent them from being injured. We also proposed to require that all standing water must be removed from the primary enclosure, and animals in other primary enclosures must be protected from being contaminated with water and other wastes during the cleaning.

A small number of commenters objected to the requirement for the daily cleaning of primary enclosures, stating that such frequency was not necessary for the health of the animals. One commenter recommended that grill-type floors be exempt from daily cleaning of wastes, and instead be required to be cleaned as often as necessary. The only area around the primary enclosure that requires daily cleaning is the inside area housing the animals. Areas under primary enclosures must be cleaned out only as necessary. The wording in the proposal regarding the interior of primary enclosures states that excreta and food waste must be removed from those areas daily. We consider this a reasonable and necessary minimum. Several commenters stated that it should be required that excreta be removed daily from beneath primary enclosures. We are making no changes based on these comments. The frequency of cleaning recommended by the commenters is not necessary to prevent the soiling of the animals. However, frequent removal of wastes is necessary to control problems such as odor and vermin. Several commenters recommended that cleaning frequency should be determined by the attending veterinarian, and conform with the NIH Guide. We cannot envision many situations where daily cleaning of the inside of a primary enclosure would not be necessary, and therefore do not consider it appropriate to allow for departures from that frequency. The provisions as written do conform with the NIH Guide. One commenter recommended that in cases where bedding is used, cleaning be required only as often as necessary to prevent excess accumulations of excreta and feed waste. We do not agree that the use of bedding lessens the need for sanitation, and are making no changes based on this comment.

A small number of commenters objected to the daily cleaning of non-contact surfaces. Such a requirement was not included in the proposal. Several other commenters stated that standards for odor should be set as to be measurable. Proposed § 3.10 contained no requirements for odor control. We consider this issue to be adequately addressed under the ventilation requirements for housing facilities, discussed elsewhere in this supplementary information, under the heading "Ventilation Requirements in Housing Facilities—Sections 3.2(b), 3.3(b), and 3.5(b)."

Many commenters objected to the proposed requirement that standing water be removed from primary enclosures. Some stated that when dogs are housed with elevated areas, many enjoy playing in water. Others suggested that water be required to be removed only "to the extent practical." The requirement as proposed is not based solely on the comfort of the animals housed, but also on the need to minimize the opportunity for contamination and disease spread. We consider the requirement for the removal of standing water to be necessary as written, and to convey its intent clearly.

A large number of commenters urged that it be required that animals be removed from a primary enclosure when the enclosure is being cleaned by steam. A smaller number of commenters stated that it should be required that a dog or cat not be involuntarily wetted during the cleaning of an enclosure. We recognize clearly the potential dangers to animals that are not properly protected when steam cleaning is taking place. It was our intent in wording the proposal as we did to make it clear that animals must be removed from their primary enclosures during steam cleaning, unless they are otherwise adequately protected. However, upon review of the comments regarding this provision, we consider it appropriate to reword that provision to further clarify our intent. Additionally, we consider it appropriate to reword our requirement regarding the wetting of animals during cleaning, again to clarify our intent. Therefore, in this final rule, we are providing in § 3.11(a) (redesignated from § 3.10(a) in the proposal) that when steam or water is used to clean the primary enclosure, whether by hosing, flushing, or other methods, dogs and cats must be removed, unless the enclosure is large enough to ensure the animals would not be harmed, wetted, or distressed in the process. In prohibiting the wetting of animals, our intent is to prohibit direct wetting of animals during the cleaning process. We do not consider it deleterious to the animals, for example, to have their feet wetted by water resulting from the cleaning. As discussed, above, however, standing water must be removed from the primary enclosure.

Many commenters recommended that we define the word "cleaning." We believe that the dictionary definition of the word "cleaning" adequately conveys our intent and we are making no change to our proposal based on these comments.

Sanitization of Primary Enclosures and Food and Water Receptacles—Section 3.10(b) (Redesignated as Section 3.11(b) in this Final Rule)

As proposed, the provisions of proposed § 3.10(b) regarding sanitization of primary enclosures and food and water receptacles were basically the same as those in § 3.7(b) of the existing requirements. In § 3.10(b)(2) of our proposal, we included wording to indicate that used food and water receptacles, as well as primary enclosures, must be sanitized at least once every two weeks, and before being used to feed or water another dog or cat.

A small number of commenters supported the provisions of proposed § 3.10(b) as written. Several commenters stated that the regulations should require sanitization of primary enclosures for dogs and cats at least every 7 days, rather than at least every 2 weeks as proposed. Based on our enforcement of the existing regulations, we believe that sanitization at least every two weeks is sufficient to help ensure the health and well-being of the animals. As proposed, more frequent sanitization is required as necessary.

One commenter recommended that it be required that food receptacles be cleaned daily. Although the proposed regulations do not require daily cleaning of food receptacles, § 3.8(b) as proposed (redesignated in this final rule as § 3.9(b)) requires that food receptacles be kept clean. Individual circumstances will determine if compliance with that requirement necessitates daily cleaning.

Proposed § 3.10(b)(3) contained specific methods of sanitization that would be considered adequate to meet the sanitization requirements of the proposed regulations. These methods are the same as those in the existing regulations, with the addition of a provision to allow the use of detergent/disinfectant products that accomplish the same purpose as the detergent/disinfectant procedures specified in the existing regulations.

A small number of commenters addressed § 3.10(b)(3)(ii) of the proposal, which provided as an

acceptable method of sanitization washing with hot water (at least 180 °F (82.2 °C)) and soap or detergent. Most of the commenters recommended that the provision be changed to specify water temperatures from 140 °F–160 °F, because, according to the commenters, detergents are not effective at 180 °F. The provision in question has been included in the existing regulations for a number of years, and we are not aware of any problems due to the water temperature required. One commenter stated that water in the 160 °F–180 °F range is capable of sanitizing, whether or not soap or detergents are used. We do not agree with the commenter's assertion in all cases. Whether water heated as recommended by the commenter is effective in sanitization depends on a number of variables, including the water temperature, the organisms involved, and the duration of contact with the surface to be sanitized. We therefore do not consider it appropriate to make any changes based on the comment.

Housekeeping for Premises—Section 3.10(c) (Redesignated as Section 3.11(c) in this Final Rule)

In proposed § 3.10(c), we revised and reworded § 3.7(c) of the existing regulations regarding housekeeping to clarify that paragraph's intent. The existing regulations require that premises be kept free of trash accumulations and be kept clean enough and in good enough repair to protect the animals and facilitate the husbandry practices required by subpart A of the regulations. We proposed to retain the existing requirements, but also to add language to clarify that one of the aims of the housekeeping provisions is to keep premises rodent-free. Additionally, we proposed to specify the following as good housekeeping practices: Premises would have to be kept free of accumulations of trash, junk, waste products, and discarded matter; weeds, grasses, and bushes would have to be controlled so as to facilitate cleaning and pest control, and to protect the dogs' and cats' health and well-being. The only commenters addressing these provisions supported them, and we are making no changes in this final rule.

Pest Control—Section 3.10(d) (Redesignated as Section 3.11(d) in this Final Rule)

The provisions of proposed § 3.10(d) regarding pest control are basically the same as those in § 3.7(d) of the existing requirements. We proposed some minor revisions to simplify the language used. We also proposed to clarify that a pest control program is necessary to promote the health and well-being of the dogs and cats at a facility and to reduce contamination by pests in animal areas.

Several commenters requested that the regulations include further clarification of the provisions regarding a pest control program. We consider the goal to be met regarding pest control to be clearly stated in the proposal. Because of the wide diversity in facility structures, location, pest problems, and methods of prevention and eradication, we do not consider it advantageous or reasonable to prescribe specific procedures for pest control.

Several commenters stated that the regulations should contain requirements to ensure that pesticides are applied in accordance with applicable Federal, State, and local laws. Persons using pesticides are required to comply with applicable Federal, State, and local laws by the terms of those laws. While we agree that users should be careful in the use of pesticides, we are making no changes based on these comments.

Employees—Section 3.11 (Redesignated as Section 3.12 in this Final Rule)

Existing § 3.8 requires that there be a sufficient number of employees to maintain the prescribed level of husbandry practices required by Subpart A, and that husbandry practices be under the supervision of an individual with a background in animal husbandry or care. We proposed minor revisions to this section in proposed § 3.11 to make clear that this requirement is imposed upon every person subject to the regulations and that the burden of verifying and ensuring that the supervisor and other employees are appropriately qualified is on the employer subject to the regulations. We did not propose to prescribe a specific number of employees for each facility, because the number of employees needed will vary according to the size and configuration of the facility, and according to the number and types of animals housed there. Under the proposal, a facility would have to have enough employees to carry out proper feeding, cleaning, observation, and other generally accepted professional and husbandry practices.

A number of commenters supported proposed § 3.11 as written. Many other commenters objected to the proposed provisions, and stated that adequate staffing levels should be determined by the facilities or the attending veterinarian. Several commenters stated that government personnel are not qualified to tell facilities that they do not have enough employees. The requirement as proposed was that there be sufficient employees to carry out the level of husbandry and care required by the regulations, and is clearly within the Department's authority under the Act. We disagree that the Department cannot make a valid determination of whether adequate staffing exists. As we discussed in our proposal, such a determination can be made based on an evaluation of common practices regarding facilities of a particular size or nature, and on observation of whether the regulations are being complied with.

A small number of commenters recommended that § 3.11 as proposed be reworded to state that the employer is responsible only for the training of employees, and not for their performance. Such a change would not convey our intent, which is to ensure compliance with the regulations by holding the facility responsible for both the training and the performance of its employees. One commenter stated that the regulations should require that all employees possess a minimal level of knowledge, background, and experience in animal husbandry and dog/cat care. We are making no changes based on this comment. We consider the fact that the employee supervisor must meet the qualifications described, together with the fact that the employer must be certain that other employees can perform to the prescribed standards, to be adequate in assuring the competence of the employees. Several commenters stated that standards for employee evaluation should be clarified in the regulations. We consider employee evaluation to be most appropriately left to the facility itself, and are making no changes based on these comments.

Social Grouping—Section 3.12 (Redesignated as Section 3.7 in this Final Rule)

We proposed to revise slightly existing § 3.9 regarding social grouping of dogs and cats in order to reduce the stress suffered by certain dogs and cats. Under proposed § 3.12(d), dogs and cats could be maintained together in the same primary enclosure, or be maintained in the same primary enclosure with other species of animals, if they are compatible. Under the proposal, if dogs and cats are not compatible with each other or with other animals, keeping them in the same primary enclosure would continue to be prohibited.

We also proposed in § 3.12(c) that puppies or kittens 4 months of age or less may not be housed in the same primary enclosure with adult dogs or cats, other than their dams, except when permanently maintained in breeding

colonies. Additionally, we proposed that dogs and cats that have or are suspected of having a contagious disease must be isolated from healthy animals in the colony, as directed by the attending veterinarian. We also proposed to provide that when an entire group or room of dogs and cats 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.

Several commenters supported proposed § 3.12 as written. Section 3.12(d) of the proposal provides that dogs or cats may not be housed in the same primary enclosure with any other species of animal, unless they are compatible. Several commenters opposed the housing of multiple species within the same primary enclosure. We are making no changes based on these comments. As we stated in our proposal, in some cases it would cause more stress to the animals to separate differing species than to keep them together. Such multiple-species housing would be permitted only if the animals are not compatible.

Several commenters opposed the use of group housing, stating that aggressive pack behavior in dogs can cause injury in animals. One commenter stated that socialization will be extremely stressful for dogs and cats, and that stressed individuals will be identified only by trial and error. As we stated in our proposal, although injurious pack behavior is frequently observed in animals that roam at large, it is not a significant problem in animals cared for by humans. Additionally, it should be noted that proposed § 3.12 does not require group housing of animals. It merely sets forth standards for those situations where a facility chooses to house its animals in groups.

A number of commenters stated that in cases where foster dams are used, puppies and kittens should be allowed to stay with those animals, just as if with their natural dam. We agree, and are adding such a provision to this final rule, both in § 3.7 (redesignated from § 3.12 in the proposal), and in §§ 3.6 (b) and (c).

A small number of commenters stated the provisions in proposed § 3.12 were duplicative of the provisions in §§ 3.6 (b)(2) and (c)(3), and were therefore unnecessary. We do not agree. The compatability requirements in proposed § 3.12 include situations where dogs and cats are housed together. The provisions in § 3.6 do not.

For the reasons discussed in this supplementary information under the heading "Exercise and Socialization for Dogs—§ 3.7 (Redesignated as § 3.8 in this Final Rule)," we are changing the heading of proposed § 3.12 (redesignated as § 3.7 in this final rule) from "Social Grouping" to "Compatible Grouping."

Transportation Standards

Consignments to Carriers and Intermediate Handlers—Section 3.13

We proposed to expand the existing obligations imposed upon carriers and intermediate handlers (defined in Part 1 of the regulations) to ensure the well-being of dogs and cats during transport in commerce. Certain prerequisites must be satisfied before carriers and intermediate handlers may accept dogs and cats for transport in commerce. Additionally, the carriers and intermediate handlers have certain duties to fulfill after the shipment has reached its destination. Various obligations are presently contained in existing §§ 3.11 and 3.14. We proposed to consolidate them in one section, proposed § 3.13, and to add some additional ones necessary for the dogs' and cats' welfare.

We proposed to remove from the regulations the requirement that certifications accompanying shipments of dogs and cats include an "assigned accreditation number" (as provided in existing § 3.11(c)(4)), because a program under which accreditation numbers are assigned has not been implemented.

One commenter requested that the regulations be clarified as to the distinction between the transport of animals and the transport of animals "in commerce." We do not consider such definitions necessary. Under the regulations, the transportation of any covered animal by any regulated entity is "in commerce," whether in intrastate, interstate, or foreign commerce.

Among the existing regulations retained in proposed § 3.13(a) was the provision that carriers and intermediate handlers must not accept a dog or cat for transport in commerce more than 4 hours before the scheduled departure time of the primary conveyance. As proposed, this time period could be extended by up to 2 hours if arranged between the consignor and the carrier or intermediate handler. Several commenters called for a shortening of this time period, down to a maximum of 2 hours. We are making no changes based on these comments. It would be impracticable for carriers to arrange for and handle the transport of animals within the shortened time span. A small number of other commenters recommended that the period for acceptance before departure be changed to 6 hours in all cases, since the 4-hour maximum may be changed without extenuating circumstances. Based on our experience enforcing the regulations, we consider the 4-hour period to be a suitable maximum in most cases. By requiring prior agreement between two parties for extension of this period, we have found that the time will be extended only as needed in extenuating circumstances.

In proposed § 3.13(b), we provided that carriers and intermediate handlers must not accept a dog or cat for transport in commerce unless they are provided with the name, address, and telephone number of the consignee. The only commenter addressing these provisions supported them as written.

Section 3.13(c) of the proposal included the requirement that written instructions concerning food and water requirements for each dog and cat in the shipment be securely attached to the outside of the primary enclosure before a carrier or intermediate handler can accept it for transport. This requirement is contained in existing § 3.14(d). The proposal provided that instructions would have to be easily noticed and read. One commenter stated that the provisions do not make it clear what a carrier should do if the shipper writes instructions that no food should be fed. Several other commenters opposed the provisions, saying it would be impractical for carriers to have to maintain a log for feeding and watering instructions for each animal in transport. One commenter stated that feeding and watering times should be calculated from the time of tender, not from the time of last feeding/watering by the shipper. Some commenters stated that the problem of offering animals food and water while in transit could be solved by requiring that the consignors offer the animals food and water immediately before the animal is shipped. One commenter recommended that the consignor certification not be necessary in cases where food and water are provided in the primary enclosure at the time of presentation for shipment.

We do not consider it wise to provide an animal with food or water immediately before transportation, as it might become sick and soil its cage, or aspirate food or water into its lungs. However, upon review of the comments, we agree that keeping track of a wide variety of feeding and watering schedules for animals could create practical problems for carriers. To reduce these problems, we are providing in this final rule that carriers and intermediate handlers must not accept a dog or cat for transportation in commerce, unless the consignor certifies in writing that the dog or cat was

offered food and water during the 4 hours before delivery to the carrier or intermediate handler. By requiring feeding and watering within 4 hours of delivery for transportation, the regulations will both make more uniform the time frame during which animals will have to be fed and watered in transportation, and minimize the number of animals that need to be offered food and water in transportation. In most cases under the amended regulations, animals being transported will reach their destination before having to be fed and watered again. Additionally, to eliminate the need for the carrier to maintain a log of feeding and watering schedules, we are requiring in this final rule that, on the feeding and watering certification provided by the consignor, there be included specific instructions for the next feeding(s) and watering(s) for a 24-hour period. We are also providing that instructions for no food or water are not acceptable unless directed by the attending veterinarian.

A small number of commenters were opposed to the requirement that the certification of feeding and watering be attached to each primary enclosure. Several commenters stated that the certification should be required only on the invoice accompanying the shipment. We disagree. Secure attachment of the required information is necessary, because primary enclosures can sometimes become separated from the rest of the shipment. If information regarding feeding and watering is not attached to the enclosure, situations might arise where the carrier cannot determine if and when the animals should be offered food and water.

In this final rule, we are also making certain nonsubstantive formatting changes to improve the clarity of § 3.13 as proposed. We are combining the provisions of proposed §§ 3.13 (c) and (d) into § 3.13(c), and are redesignating subsequent paragraphs in § 3.13 accordingly.

In proposed § 3.13(e), we proposed to retain the existing standards that require that carriers and intermediate handlers must not accept a primary enclosure for transport unless it meets the other requirements of subpart A, or unless the consignor certifies that it meets the other requirements of subpart A. Even if such certification is provided, however, it is the responsibility of the carrier or intermediate handler not to accept for transport an animal in an obviously defective enclosure. A small number of commenters supported the proposed provisions as written. Other commenters expressed the opinion that the provisions of proposed § 3.13(e) were redundant; that final responsibility for determining the suitability of primary enclosures will rest on the carrier or intermediate handler in any case. Upon review of these comments, we agree that § 3.13(e) as proposed (redesignated as § 3.13(d) in this final rule) contains redundant provisions. We are therefore amending it in this final rule to make the carrier or intermediate handler solely responsible for determining whether to accept a primary enclosure for transportation.

In proposed § 3.13(f), we proposed to clarify the certifications of the consignor regarding the acclimation of a dog or cat to lower temperatures than those prescribed in existing §§ 3.16 and 3.17 of the regulations (included in proposed §§ 3.18 and 3.19). In proposed § 3.13(f), we proposed to clarify the provisions in § 3.11(c) to require that the temperatures to which a dog or cat is exposed must meet generally accepted temperature ranges for the age, condition, and breed of the animal, even if it is acclimated to temperatures lower than those prescribed in the regulations. We proposed that a carrier or intermediate handler not be permitted to expose a dog or cat to temperatures lower than those prescribed by the regulations, unless a veterinarian certifies that the animal is acclimated to such lower temperatures, and unless the veterinarian includes in the certification the minimum temperature to which the animal may be exposed. However, we proposed that in any case, even with a veterinarian's certification, no dog or cat being transported may be exposed to temperatures lower than 35 °F (1.7 °C).

Several commenters stated that veterinarians should not certify acclimation certificates, either due to the potential for liability or because, according to the commenters, veterinarians will not have first-hand knowledge of the acclimation status of the animal. We disagree. The veterinarian, based on his or her training and professional judgment, is the most appropriate person to make the necessary determination. Several commenters expressed general opposition to the allowance for acclimation certificates. We are making no changes based on these comments. There is no doubt that certain animals can tolerate temperatures outside the broad parameters appropriate for most animals. There is no need to restrict these animals from being transported in temperatures they are acclimated to.

A small number of commenters supported the provisions of proposed § 3.13(f) as written. Several commenters recommended that the regulations should require that no dogs or cats be transported if the air temperature is lower than 45 °F or higher than 85 °F. We do not agree that it is necessary or practical to establish such temperature limits for all animals in all cases. Certain dogs and cats can tolerate temperatures out of the range recommended by commenters for limited periods of time. We do agree, however, that it is necessary for the well-being of the animals to limit the duration of such exposure, and to ensure that the animal is acclimated to lower temperatures by means of certification by a veterinarian. We are therefore retaining the provisions in § 3.13(f) as proposed (redesignated as § 3.13(e) in this final rule) that carriers and intermediate handlers must not accept a dog or cat for transport in commerce unless their holding area meets the minimum temperature requirements provided in §§ 3.18 and 3.19, or unless the consignor provides them with a certificate signed by a veterinarian certifying that the animal is acclimated to temperatures lower than those required in §§ 3.18 and 3.19. To limit the duration of exposure to low temperatures, we are amending § 3.13(e) of this final rule to provide that even if the carrier or intermediate handler receives this certification, the temperature the dog or cat is exposed to while in a terminal facility must not be lower than 45 °F (7.2 °C) for more than 4 consecutive hours, as set forth in § 3.18, nor lower than 45 °F (7.2 °C) for more than 45 minutes, as set forth in § 3.19, when moving dogs or cats to or from terminal facilities or primary conveyances. Additionally, to make the transportation temperature requirements more consistent with those for housing facilities, we are providing in § 3.13(e) that acclimation certificates are required when the temperature is lower than 50 °F, rather than 45 °F as proposed.

One commenter stated that a certification of acclimation should be used only when a veterinarian can state that the animal is acclimated to temperatures of 35 °F and higher. The commenter's recommendation was based on the proposal, which set a temperature minimum of 35 °F. With the changes we are making in this final rule, we do not believe it practical or necessary to adopt the commenter's recommendation, which would restrict transport in colder climates.

One commenter recommended that the proposed provisions should apply only to animal holding areas, and not to entire cargo facilities. The commenter's recommendation is consistent with our

intent, and we are revising the wording of proposed § 3.13(f) (redesignated as § 3.13(e) in this final rule) to clarify that intent.

We proposed in § 3.13(g) of the proposal to retain the provision in existing § 3.11(d) that requires the carrier or intermediate handler to attempt to notify the consignee of the arrival of the animal upon arrival, and every 6 hours after arrival. Proposed § 3.13(g) included limitations on how long a dog or cat can be held at a terminal facility while waiting to be picked up by the consignee. The same time limitations are imposed under part 2 of the existing regulations, § 2.80, "C.O.D. shipments," so that the carrier or intermediate handler must attempt to notify the consignee for 24 hours after arrival, then must return the animal to the consignor or to whomever the consignor designates if the consignee cannot be notified. If the consignee is notified and does not take physical delivery of the dog or cat within 48 hours of notification, the carrier or intermediate handler must likewise return the animal to the consignor or to whomever the consignor designates. We also included provisions in proposed § 3.13(g) to require that carriers and intermediate handlers continue to maintain dogs and cats in accordance with generally accepted professional and husbandry practices, as long as the animals are in their custody and control and until the animals are delivered to the consignee or to the consignor or to whomever the consignor designates. We also proposed to require that the carrier or intermediate handler obligate the consignor to pay for expenses incurred by the carrier or intermediate handler in returning the animal to the consignor.

A number of commenters recommended that the regulations require that carriers and intermediate handlers be required to notify the consignee every 3 hours after arrival of the animal, rather than every 6 hours. We do not agree that such a requirement is practical or necessary. Our enforcement of the existing regulations has shown no problems with these provisions to date. Several commenters stated 48 hours is too long to wait to return any animals not picked up by the consignee after notification. We do not agree. Under the regulations, the animal must be properly cared for until either picked up or returned.

One commenter requested clarification as to which shipping documents a carrier or intermediate handler must use to record attempts to notify the consignee. The regulations as proposed require that attempts at notification be recorded on the carrier's or intermediate handler's copy of the shipping document, and on the copy that accompanies the primary enclosure. It was our intent in proposing the provision that the necessary documentation would be recorded on copies of the waybill. We recognize, however, that in certain cases—i.e., electronic waybills—there will be no copy accompanying the primary enclosure. Therefore, we are addressing the commenter's concern by requiring in this final rule that all attempts to notify the consignee must be written either on the carrier's or intermediate handler's copy of the shipping document or on the copy that accompanies the primary enclosure.

Primary Enclosures Used to Transport Dogs and Cats: Construction—Section 3.14(a)

We proposed to reformat existing § 3.12, which concerns primary enclosures used to transport dogs and cats, and to move those provisions to proposed § 3.14. Additionally, we proposed to revise the contents of several paragraphs in the section, and add requirements for surface transportation. When the transportation standards were rewritten in 1978 to implement the 1976 amendments to the Act concerning the commercial transportation of animals, the existing standards for surface transportation were inadvertently omitted. Since that time, the standards have pertained to commercial transportation by common carrier and only a few paragraphs have pertained to surface transportation by private vehicle. We therefore proposed to reinstate the surface transportation standards.

We proposed to require in § 3.14(a) that dogs and cats be shipped in primary enclosures. In addition to the requirements in existing § 3.12(a) regarding construction of primary enclosures used for transportation, we proposed to require in § 3.14(a) that the primary enclosure be constructed so that: (1) The animal being transported is at all times securely contained within the enclosure and cannot put any part of its body outside of the enclosure in a way that could injure the animal, other animals, or people; (2) any material used in or on the enclosure is nontoxic to the animal; and (3) if a slatted or wire mesh floor is used in the enclosure, it be constructed so that the animal cannot put any part of its body through the spaces between the slats or through the holes in the mesh. Our proposal specified that unless the dogs and cats are on raised floors made of wire or other nonsolid material, the primary enclosure would have to contain enough suitable, previously unused litter to absorb and cover excreta.

A small number of commenters specifically supported the provisions of proposed § 3.14(a) as written. One commenter recommended that the regulations specify how an enclosure will be built so that it may be secured to the frame or solid surface of the transporting conveyance. Because of the variation in types of cages and transport vehicles, we do not consider it appropriate to require one method of fastening. We are therefore making no changes based on this comment.

A small number of commenters stated that requiring that a primary enclosure be built so that an animal cannot put any part of its body outside the enclosure in a way that could injure the animal is excessive. Most of these commenters stated that such a requirement might result in caging with poor ventilation. We do not agree. To be used in transportation, primary enclosures must meet the ventilation requirements in proposed § 3.14(c). These requirements are very similar to those in the existing regulations, and have proven workable and appropriate. We also do not agree that the provisions in question are excessive. They clearly state that parts of the animals' body shall not protrude from the cage "in a way that could result in injury." Such a requirement is reasonable and necessary for the well-being of the animals.

One commenter stated that mesh floors should be allowed if they do not allow feet and/or toes to become caught, because too small a mesh will not allow feces to pass through. We are making no changes based on these comments. We do not agree that mesh that allows passage of the animals' toes or feet will ensure that the animals are not injured. Although we recognize that wider mesh will more readily permit passage of feces, we do not consider the level of convenience in cleaning cages to outweigh the need to protect the animals from injury.

Primary Enclosures Used to Transport Dogs and Cats: Cleaning—Section 3.14(b)

In addition to retaining the cleaning and sanitization requirements that appear in existing § 3.12(e), we also proposed to require in proposed § 3.14(b) that if the dogs or cats being transported are in transit for more than 24 hours, either the enclosures be cleaned and the litter replaced, or other means, such as moving the animals to a different enclosure, be used to prevent

the soiling of the dogs or cats by body wastes. We proposed further that if it becomes necessary to remove the dog or cat from the enclosure, in order to clean or to move the dog or cat to another enclosure, this procedure must be completed in a way that safeguards the dog or cat from injury and prevents escape.

A small number of commenters opposed the proposed provisions regarding cleaning of the enclosures and replacement of litter. A small number of commenters recommended that such procedures be required if the animals are in transit for more than 36 hours, rather than 24 hours as proposed. Several commenters stated that requiring cleaning of enclosures and replacement of litter could create the risk of injury to carrier employees or escape of the animals. Several commenters stated that cleaning and replacement of litter be required only if the animal has soiled the litter already in place. We are making no changes based on these comments. By requiring cleaning of the primary enclosure only after 24 hours have passed, the regulations will not require the cleaning of enclosures that have not been soiled. Allowing an animal to stay for 36 hours in a cage that has not been cleaned poses a risk to the well-being of the animal. In addition to cleaning the cage, the carrier has the option of moving the animal to another enclosure. The issue of animals escaping while their enclosures are being cleaned is addressed in § 3.14(b) as proposed.

Several commenters recommended that the regulations provide that planned transport should not exceed 24 hours, and that when transport does exceed that time, animals must be moved from their primary enclosure to a clean one. We are making no changes based on these comments. It is not necessary to regulate the duration of transportation, because the regulations as proposed already include practical options for sanitation of primary enclosures for transportation that exceeds 24 hours.

Primary Enclosures Used to Transport Dogs and Cats: Ventilation—Section 3.14(c)

The provisions we proposed regarding ventilation requirements for primary enclosures used to transport dogs and cats were the same as those in the existing regulations at § 3.12(a) (4), except as discussed below.

While retaining in the proposal the majority of the existing provisions regarding ventilation openings, we proposed to amend those provisions to require that at least one-third of the ventilation area be located on the upper one-half of the primary enclosure. We also proposed in § 3.14(c) (3) to require that the ventilation openings of primary enclosures permanently affixed to a conveyance be covered with bars, mesh, or smooth expanded metal having air spaces. The only comments specifically addressing these provisions supported them, and we are making no changes in this final rule.

Primary Enclosures Used to Transport Dogs and Cats: Compatibility—Section 3.14(d)

Under the existing regulations, § 3.12(b) required that live dogs or cats transported in the same primary enclosure be of the same species and be maintained in compatible groups. We proposed to retain this wording in proposed § 3.14(d), with the added provision that dogs and cats that are private pets, are of comparable size, and are compatible, may be transported together in the same primary enclosure.

We also proposed in § 3.14(d) that: (1) Puppies or kittens 4 months of age or less may not be transported in the same primary enclosure with adult dogs or cats other than their dams; (2) dog or cats that are aggressive or vicious must be transported individually in a primary enclosure, and (3) female dogs or cats in season (estrus) must not be transported in the same primary enclosure with any male dog or cat. The only comments specifically addressing these provisions supported them, and we are making no changes in this final rule.

Primary Enclosures Used to Transport Dogs and Cats: Space and Placement—Section 3.14(e)

We proposed to retain the requirement in existing § 3.12(c) that each dog or cat transported in a primary enclosure have sufficient space to turn about freely in a standing position, and to sit, stand, and lie in a natural position, and we proposed to move that requirement to proposed § 3.14(e) (1). The only comments specifically addressing these provisions supported them, and we are making no changes in this final rule.

Primary Enclosures Used to Transport Dogs and Cats: Transportation by Air—Section 3.14(f)

Because certain requirements for primary enclosures used in surface transportation were omitted from the 1978 revisions to the regulations, the provisions in existing § 3.12(d) regarding the number of animals that may be transported in a primary enclosure were designed only for air transportation. We therefore proposed to set forth the provisions of existing § 3.12(d), with some amendments, in proposed § 3.14(f), titled "Transportation by air." We proposed that no more than one live dog or cat, 4 months of age or more, may be shipped in a primary enclosure when shipped by air.

We also proposed that no more than one live puppy, 8 weeks to 4 months of age, and weighing over 20 lbs. (9 kg) may be transported in a primary enclosure. We proposed that it be permissible to transport a maximum of two live puppies or kittens, 8 weeks to 4 months of age, and weighing 20 lbs. (9 kg) or less each, in the same primary enclosure. In proposed § 3.14(f)(4), we proposed to retain the provision in existing § 3.12(d) that weaned puppies or kittens less than 8 weeks old and of comparable size, or puppies or kittens that are less than 8 weeks old and are littermates accompanied by their dam, may be shipped in the same primary enclosure to research facilities. This last provision is limited by the Act to transport to research facilities.

In using 4 months as the age an animal must attain before it can be transported, we departed from the existing regulations, which use 6 months as the minimum age for transportation. The change we proposed from 6 months to 4 months was made to achieve further consistency with similar provisions throughout Subpart A. A number of commenters opposed this change. One commenter stated that such a change would make obsolete educational materials issued by the transportation industry, and that the existing regulations have proven adequate. Upon review of the issue, we agree with the comment that no compelling reason exists to change the upper limit in the provisions in question to 6 months. Further, we agree with several of the commenters that, by reducing the upper limit to 6 months, and, in effect, requiring that all puppies over 4 months be shipped alone, the regulations as proposed could promote undue stress on many of the animals being transported. We are therefore returning in this final rule to the 6-month upper limit.

Several commenters opposed the provision in proposed § 3.14(f)(4) allowing weaned puppies or kittens less than 8 weeks of age to be shipped by air in the same primary enclosure when shipped to research facilities. Such a provision is permitted by the Act with regard to transportation to research facilities. We are therefore making no changes to the proposed provision based on these comments.

Several commenters stated that it should be required that puppies less

than 12 weeks of age not be shipped by air. We do not agree. Based on our experience enforcing the regulations, an 8-week minimum has proven adequate to safeguard the well-being of the animals shipped.

Several commenters stated that flexibility and professional discretion should be allowed in determining how many animals should be shipped together. We do not agree. The existing regulations have proven adequate and necessary to protect the well-being of the animals shipped.

Several commenters recommended that, instead of limiting the weight of two puppies shipped together to no more than 20 lbs. each, the regulations should limit the total weight of the two puppies to no more than 50 lbs. We are making no changes based on these comments. Such a change would in many cases require the use of enclosures larger than those currently used, and would therefore create a greater risk to the animals shipped. Based on our experience enforcing the regulations, we have found that approximately 20 lbs. per puppy is the maximum safe weight limit for two animals shipped together.

Enclosures Used to Transport Dogs and Cats: Transportation by Surface Vehicle—Section 3.14(g)

We proposed to add a new § 3.14(g) regarding transportation by surface vehicle. These provisions were proposed to reinstate primary enclosure requirements that were inadvertently omitted when the standards for the commercial transportation of dogs and cats were revised in 1978. We proposed that a maximum of four dogs or cats may be transported in the same primary enclosure when shipped by surface vehicle, provided all other transportation requirements in proposed § 3.14 are complied with.

Under our proposal, weaned live puppies or kittens less than 8 weeks of age, or puppies or kittens that are less than 8 weeks of age, are littermates, and are accompanied by their dam, would be permitted to be transported in the same primary enclosure when shipped to a research facility, including Federal research facilities.

One commenter opposed the provisions. Another commenter stated that the regulations for surface transport should be the same as those for air transport. Upon review of the comments, we continue to believe that the fundamental differences between surface transportation and air transportation allow in most cases for conditions where a greater number of dogs or cats can be safely transported in the same enclosure by surface vehicle. For the most part, therefore, we are making no changes to our proposal regarding these provisions. We are making one change, however, to provide that animals transported by privately owned aircraft will be covered by the same provisions proposed for surface vehicle. The nature of transport by most privately owned aircraft, and the configuration of their interiors, allows for greater attention to be paid to the animals during transport than does shipping by commercial aircraft. Therefore, in most cases, transportation by privately owned aircraft is more similar to transportation by surface vehicle than to transportation by commercial aircraft.

Several commenters expressed opposition to the proposed provision limiting to four the number of dogs and cats shipped in one primary enclosure by surface vehicle. We are making no changes based on these comments. In the past, the number of dogs and cats limited to one primary enclosure was 12. However, our experience enforcing this standard demonstrated that shipping this number of animals together was deleterious to their health and well-being. We consider a maximum of four dogs or cats per enclosure to be adequate to ensure the health and well-being of the animals.

Several commenters opposed the provisions in proposed § 3.14(g)(2) allowing weaned puppies or kittens less than 8 weeks of age to be shipped by surface vehicle in the same primary enclosure. As with air transportation, such an exception is authorized by the Act with regard to transportation to research facilities. We are therefore making no changes to the proposed provisions based on these comments.

Primary Enclosures Used to Transport Dogs and Cats: Accompanying Documents and Records—Section 3.14(h).

We proposed to require in proposed § 3.14(h) that shipping documents accompanying the shipments either be maintained by the operator of the conveyance or be securely attached in a readily accessible manner to the outside of the primary enclosures in a way that allows them to be detached for examination and securely reattached. We also proposed to require that instructions for food and water and for administration of drugs, medication, and other special care be attached to each primary enclosure in a manner that makes them easy to notice, to detach for examination, and to reattach securely. Several commenters specifically supported the proposed provisions as written. Several commenters stated that the regulations should allow for the use of non-detachable food and water instructions, because detachable ones might be lost. The commenters' recommendation has been addressed in § 3.13(c) of this rule, which provides that food and water instructions must be securely attached to the primary enclosure. We have made appropriate wording changes in § 3.14(h) to convey this intent.

Primary Conveyances—Section 3.15

Under the requirements for air transportation in proposed § 3.15(d), we specified that during transportation, including time spent on the ground, live dogs and cats must be transported in cargo areas that are heated or cooled as needed to maintain the required ambient temperature. We also proposed that cargo areas would have to be pressurized while the conveyance is in the air, unless it is flying under 8,000 ft. In proposed § 3.15(e), we proposed to require that during surface transportation, auxiliary ventilation, such as fans, blowers or air conditioning, be used in animal cargo spaces containing live dogs or cats when the ambient temperature within the animal cargo space is 85 °F (29.5 °C) or higher. Additionally, as proposed, the ambient temperature would not be permitted to exceed 95 °F (35 °C) at any time; nor to exceed 85 °F (29.5 °C) for a period of more than 4 hours; nor to fall below 45 °F (7.2 °C) for a period of more than 4 hours; nor to fall below 35 °F (1.7 °C) at any time. We proposed to add requirements in proposed § 3.15(c) that a primary enclosure be positioned in a primary conveyance in a way that provides protection from the elements. Existing § 3.13(f) requires that dogs and cats not be transported with any material, substance or device that may reasonably be expected to harm the animals. In proposed § 3.15(h), we proposed to clarify the intent of that requirement to indicate that the material, substance or device may not accompany the animals only if the shipment is conducted "in a manner" that may reasonably be expected to harm the dogs and cats or cause inhumane conditions.

A small number of commenters specifically supported the provisions of proposed § 3.15 as written. A small number of commenters stated that the proposed heating and cooling requirements for air cargo areas were too stringent. One commenter stated that carriers do not have the capability to heat and cool the ground conveyances used to transport animals to and from the terminals and the

aircraft. The commenters stated further that compliance with proposed provisions would be impossible because carriers do not have the capability to heat or cool the cargo compartment while the aircraft is on the ground. Upon review of the comments, we agree that the proposed provisions would be impracticable. Due to Federal aviation safety requirements, it would be impossible to comply with the proposed standards when the aircraft is on the ground. We are therefore amending § 3.15(d) as proposed to delete the provision that the standards apply to aircraft on the ground, and to periods when the animals are being transported. However, we are retaining provisions in § 3.19 as proposed that include safeguards for animals moved on transporting devices.

One commenter recommended that the regulations should include specific temperature limits for transport in air cargo areas. Due to the nature of cargo areas on aircraft, such a requirement would be impractical. Further, based on our experience enforcing the regulations, we are not aware of significant problems with temperature extremes during flight.

One commenter specifically supported the provisions of proposed § 3.15(e) as written. Several commenters stated that the temperature limits in proposed § 3.15(e) regarding surface transportation were too lenient, and should include separate requirements for sick, or very old or very young animals. While we encourage additional care of animals with special needs, we do not believe that it would be practical to impose diverse temperature requirements on the same surface vehicles based on the variety of animals it was carrying. Additionally, provisions in § 3.14 as proposed, and in § 3.17 as proposed, restrict the transportation of very young or sick animals, respectively.

One commenter recommended that the regulations require that auxiliary ventilation be used when temperatures reach 75 °F, and also recommended that temperatures should not exceed 75 °F for more than 4 hours. The commenter supplied no additional data to support this recommendation, and we do not consider such a change necessary to ensure the well-being of animals transported.

We are making several changes to § 3.15(e) that are consistent with changes we are making elsewhere in this final rule. Upon review of the comments received, we agree that animals will be adequately protected from extreme temperatures for extended periods of time if temperatures in cargo areas during surface transportation do not exceed 85 °F for more than 4 hours, nor fall below 45 °F for more than 4 hours. Therefore, in this final rule, we are removing the provisions in proposed § 3.15(e) that temperatures may not exceed 95 °F at any time, nor fall below 35 °F at any time. These amendments will minimize disruption to normal shipping practices, while at the same time continuing to safeguard the well-being of the animals shipped.

One commenter recommended that the regulations require that animals be transported in trucks that provide a certain number of air changes per hour, and that these ventilation systems be operated at all times the vehicle is not in motion. We are making no changes based on this comment. We consider the regulations set forth in this final rule to provide adequate standards for the protection of animals being transported. As long as a primary conveyance is in compliance with the standards, we do not consider it relevant how the standards are met.

One commenter recommended that specific standards be set forth regarding trailers and buses used as primary conveyances. We consider the proposed wording adequate to address the health and safety of animals being transported, and are making no changes based on these comments.

Food and Water Requirements—Section 3.16

We set forth requirements regarding food and water for dogs and cats being transported, contained in the existing regulations in § 3.14, in proposed § 3.16. We also proposed to remove the provision concerning the minimum amount of water that must be offered to dogs or cats under 16 weeks of age.

Existing § 3.14(a) requires that dogs and cats be offered water within 12 hours after the start of transportation or acceptance for transportation. Existing § 3.14(b) requires that puppies and kittens be provided food at least once every 12 hours, and dogs and cats over 16 weeks of age be provided food at least once every 24 hours. We proposed in §§ 3.16 (a) and (b) that the time periods for providing food and water to the animals after transport or acceptance for transport would begin at the time the dog or cat was last provided food and water before initiation of transport or acceptance for transport.

In order to minimize the instances where carriers and intermediate handlers have to provide food and water to the animals immediately after accepting them for transport, we proposed that consignors subject to the regulations be required to certify that each dog or cat was provided water within 4 hours before delivery for transportation and that each dog or cat was provided food within 12 hours before delivery for transportation. We also proposed to require that the certification include the date and times the food and water was offered.

A number of commenters addressed the feeding and watering provisions in proposed § 3.16. Several supported these provisions as proposed. A small number of commenters recommended that dogs and cats in transport, especially young animals, be fed and watered more often than as proposed. One commenter stated that water should be available continuously during transport. Based on our experience enforcing the regulations, we do not consider such additional feeding and watering necessary or practical, and are making no changes based on this comment. In particular, the provision of water at all times during transit would promote wetting and contamination of the primary enclosure and the animal.

One commenter opposed the requirements of proposed §§ 3.16 (a) and (b), regarding the frequency of feeding and watering of animals in transit. The commenter stated that the regulations as proposed would create logistical problems for carriers, both in carrying out the feeding and watering, and in keeping track of when such feeding and watering must take place. The commenter recommended that it be required that the consignor offer food and water to the animal immediately before shipment. As we stated elsewhere in this supplementary information under the heading "Consignments to Carriers and Intermediate Handlers—§ 3.13," we do not consider it wise to give food or water to an animal immediately before transportation, as it may become sick and soil its cage, or aspirate food or water into its lungs. However, as we described under that same heading, we are amending this final rule to reduce the logistical difficulties carriers might experience, both by requiring that animals be offered food and water within 4 hours of delivery for transport, and by requiring that an explicit schedule for feeding and watering during the next 24-hour period be securely attached to the primary enclosure by the consignor.

One commenter stated that the shipper should be required to provide an adequate amount of food and water along with the animals shipped. We do not consider such a requirement practical or necessary. Under normal circumstances, it should not be necessary to feed and water the animals

while they are in transport. When an animal is in transport for an extended period of time, it is the responsibility of the carrier or intermediate handler to provide food and water as required in § 3.16.

One commenter stated that provision of food high in water content should be allowed in place of water. We are making no changes based on this comment. It would not be evident in each case what amount of food high in water content would be adequate as a replacement for water alone.

One commenter recommended that it be required that instructions for feeding and watering be securely attached to the primary enclosure. We have included this provision, as discussed above. Several commenters expressed the opinion that one receptacle is sufficient for both food and water. We do not consider it reasonable or practical to allow use of the same receptacle for food and water. Separate receptacles are necessary to allow for feeding and watering at the same time, as required by the standards in this final rule.

We proposed to set forth the provisions in existing § 3.14(d), concerning a carrier's or intermediate handler's responsibility regarding written feeding and watering instructions, in proposed § 3.16(c). We proposed to add the provision that food and water receptacles must be securely attached inside the primary enclosure and be placed so that the receptacles can be filled from outside the enclosure without opening the door. We proposed this provision based on information from carriers and intermediate handlers, which indicated to us that when a primary enclosure is opened to provide food or water to the animal inside, there is often a significant risk of the animal escaping from the enclosure.

We have made several nonsubstantive formatting changes to § 3.16. To eliminate duplicative provisions, we have combined paragraphs (a) and (b) as proposed, and have redesignated subsequent paragraphs accordingly.

Care in Transit—Section 3.17

We proposed to set forth in proposed § 3.17 the provisions regarding care in transit in existing § 3.15, with some minor reformatting for readability and several additions to the existing provisions. In proposed § 3.17(a), we proposed to allow either the operator of the conveyance or a person accompanying the operator to check on the dogs or cats being transported, but proposed to make it the responsibility of the regulated person transporting the dogs and cats to ensure that this observation is carried out. Additionally, in proposed § 3.17(a), we proposed to use language that specifies that dogs or cats in obvious physical distress must be given veterinary care at the closest available veterinary facility.

A small number of commenters specifically supported the provisions of proposed § 3.17 as written. One commenter stated that observing the dogs or cats at least every 4 hours, as proposed, is unnecessary when temperature-controlled vehicles are used. We do not agree. Excessively cold or hot temperatures are not the only problems that may be encountered in the vehicle or with the animals themselves.

One commenter stated that the regulations should require that necessary veterinary care be provided "as soon as possible," not at the closest veterinary facility, as proposed, because not all clinics have proper facilities. We are making no changes based on this comment. By using the term "closest available," we consider the language as proposed to adequately state our intent, and to address the concerns of the commenter.

In proposed § 3.17(c), we proposed to add an exception to the existing regulations prohibiting transport in commerce of a dog or cat in physical distress, to allow transport for the purposes of obtaining veterinary care for the condition. We also proposed to add a paragraph, § 3.17(e), to specify that these transportation standards remain in effect and must be complied with until a consignee takes physical delivery of the animal if the animal is consigned for transportation, or until the animal is returned to the consignor.

A number of commenters supported the provisions of proposed § 3.17 as written. One commenter opposed the provision that would make air carriers responsible for determining whether an animal is in distress. The commenter stated that airline employees should be responsible only for reporting any suspicious symptoms or behavior to the veterinarian. We are making no changes based on these comments. The provisions as proposed require only that the carriers determine if an animal is in obvious physical distress. The carriers are not required to interpret symptoms or other signs. If the animal is in obvious distress, then the carrier must arrange for any needed veterinary care.

Terminal Facilities—Section 3.18

We proposed to require that any person subject to the regulations who transports dogs or cats and who holds them in animal holding areas must keep the animals away from inanimate cargo, clean and sanitize the area, have an effective pest control program, provide ventilation, and maintain the ambient temperature within certain prescribed limits. Also, we proposed that the length of time that dogs and cats can be maintained in terminal facilities upon arrival after transportation would be the same as that proposed in § 3.13(g). Several commenters recommended that the proposed regulations be clarified with regard to the commingling of dogs and cats with inanimate cargo. We consider the regulations as proposed to adequately express our intent for enforcement purposes, and are making no changes based on the comments. One commenter stated that the proposed cleaning requirements for terminals were too rigid, because the animals there are contained in primary enclosures. While we agree that the animals themselves will not largely contribute to the need for sanitation, we consider thorough cleaning of the animal holding area to be necessary for the animals' well-being, due to the wide variety of other materials that will normally be kept in such facilities.

In proposed § 3.18(c), we provided that ventilation must be provided in any animal holding area in a terminal facility containing dogs or cats. A small number of commenters recommended that the regulations specifically require that fresh air be provided. We do not agree. In many cases, recycled air is of higher quality than what would ordinarily be considered "fresh air."

As well as retaining the temperature requirements in the existing regulations, we proposed to add in § 3.18(d) the provision that the ambient temperature in the animal holding area of terminal facilities may not fall below 35 °F (1.7 °C) at any time live dogs or cats are present. The regulations we proposed specified a procedure for measuring the ambient temperature.

A small number of commenters supported the provisions of proposed § 3.18 as written. One commenter stated that the temperature requirements for housing facilities should also apply to holding facilities. Other commenters were divided on whether the proposed temperature standards were too stringent or too lenient. Upon review of the comments, we are making several changes to the temperature requirements in § 3.18. Essentially, we agree that the temperature limits for holding facilities should coincide with those of housing facilities. Therefore, in this final rule, we are providing that the ambient temperature in an animal holding area containing dogs or cats must not fall below 45 °F (7.2 °C) for

more than 4 consecutive hours or rise above 85 °F (29.5 °C) for more than 4 consecutive hours at any time dogs or cats are present.

Handling—Section 3.19

The existing regulations imposed duties on carriers and intermediate handlers for proper handling and movement of dogs and cats. We included provisions in proposed § 3.19 to impose the same duties on any person subject to the regulations when handling a dog or cat at any time during the course of transportation in commerce, so that the animals' health, safety and well-being will be protected at all times during transport. As explained in the proposal, this would include movement from an animal holding area of a terminal facility to a primary conveyance and from a primary conveyance to a terminal facility. This would also include movement of the dog or cat on a transporting device used to transfer the animal from a primary conveyance to an animal holding area and vice versa, movement from one primary conveyance to another, and movement from place to place within the terminal facility.

One commenter stated that requiring that proposed minimum and maximum temperature limits not be exceeded for more than 45 minutes was arbitrary. We disagree. Forty-five minutes is an adequate period of time to transport animals to and from aircraft and holding areas, while at the same time safeguarding their health and well-being.

We proposed to require in proposed § 3.19(b) that care be exercised to avoid handling primary enclosures in such a way that dogs or cats in the primary enclosures are caused physical harm or emotional distress. Because of problems and complaints concerning the handling of dog and cat shipments in baggage areas by airlines, we proposed that primary enclosures containing dogs or cats must not be placed on unattended conveyor belts or on elevated conveyor ramps such as baggage claim conveyor belts and inclined conveyor ramps leading to baggage claim areas. We proposed to allow primary enclosures to be placed on inclined conveyor ramps that are used to load and unload aircraft, if there is an attendant at each end of the conveyor belt.

One commenter stated that using the term "must avoid" in describing methods of handling primary enclosures is too restrictive, and does not take into account accidents. We are making no changes based on this comment. It is reasonable and practicable to take steps to avoid accidents, and is necessary for the well-being of the animals being transported.

One commenter stated that the word "emotional" should be deleted with regard to avoiding causing the animals distress, because it is accepted that animals other than man cannot experience emotions. We do not agree that animals do not show emotion. However, we are deleting the word "emotional" in § 3.19, to allow for broader enforcement of the term "distress."

Subpart D—Nonhuman Primates

Regulations on the humane handling, care, treatment, and transportation of nonhuman primates are contained in 9 CFR part 3, subpart D. These regulations include minimum standards for handling, housing, social grouping and separation of species, feeding, watering, sanitation, ventilation, shelter from extremes of weather and temperature, veterinary care, and transportation.

We proposed to revise and rewrite the existing regulations based on our experience administering them under the Act. We also proposed to amend the regulations to add requirements for a physical environment adequate to promote the psychological well-being of nonhuman primates. This is specifically required by the 1985 amendments to section 13 of the Act. (See 1752, 99 Stat. 1645, Public Law 99–198, amending 7 U.S.C. 2143.) We discuss each topic covered in our proposed regulations below.

The regulations we proposed in our revision of subpart D are minimum standards to be applied to all species of nonhuman primates. In our proposal we retained the existing footnote 1 of subpart D, although we revised it to reflect the need to promote the psychological well-being of nonhuman primates. Rather than stating that "discretion" must be used due to the variation in species, we proposed to require that these minimum standards be applied in a manner that is considered appropriate for the relevant species in accordance with customary and generally accepted professional and husbandry practices.

The Act applies to all nonhuman primates, whether living or dead. The standards we proposed are principally applicable to live nonhuman primates. In footnote 1 of our proposal, we indicated that the proposed regulations apply only to live nonhuman primates, unless stated otherwise.

A small number of commenters stated that the proposed regulations did not represent the recommendations of the expert committee on nonhuman primates that was convened prior to the development of the proposed regulations. In soliciting recommendations from the expert committee, we considered it one source among many with the experience and expertise to advise us in the development of the proposed regulations. Throughout this rulemaking process, we have consistently invited information from all informed parties. This final rule represents the best information available to us, including that supplied to us by the expert committee.

One commenter recommended that the regulations require that each facility develop a care and use plan to address all aspects of nonhuman primate care, including physical aspects of the facility. Several commenters stated that a separate plan should be required for each species. Several commenters opposed the documentation of a plan for promoting the psychological well-being of nonhuman primates, as discussed below, stating that written procedures are not required for equally important husbandry practices under the proposed regulations. We disagree that a written, comprehensive plan addressing all aspects of nonhuman primate care is necessary. The specific standards that each facility must meet are set forth in the regulations in this final rule. A plan is necessary with regard to the psychological well-being of nonhuman primates, however, due to the many variables affecting how best to achieve psychological well-being in different species and animals.

One commenter stated that the use of primates in basic research should not be allowed until a research facility can demonstrate that it can maintain the animals' psychological well-being. We are making no changes based on this comment. Under the Act, the Department is not authorized to promulgate regulations that interfere with the design, outline or guidelines of actual research.

The heading for subpart D as proposed contains a footnote reference, which indicates that because of the great diversity among nonhuman primates, the standards in subpart D must be applied in accordance with the customary and generally accepted professional and husbandry practices considered appropriate for each species, and necessary to promote their psychological well-being. A number of commenters recommended that the footnote also state that the minimum standards must be applied so as to allow the nonhuman primates to express the species-specific behavior of each

individual species. We do not consider such an addition necessary. Consideration of species-typical behavior is already included in § 3.81 as proposed as a minimum standard

Housing Facilities and Operating Standards

Existing §§ 3.75 through 3.77 provide requirements for facilities used to house nonhuman primates. Existing § 3.75, "Facilities, general," contains regulations pertaining to housing facilities of any kind. It is followed by existing § 3.76, "Facilities, indoor," and § 3.77, "Facilities, outdoor." We proposed to amend these sections to provide for an environment that better promotes the psychological well-being of nonhuman primates. We also proposed to add sections that provide regulations specifically governing two other types of housing facilities used to house nonhuman primates, sheltered housing facilities and mobile or traveling housing facilities. The term "sheltered housing facility" is defined in part 1 as "a housing facility which provides the animals with shelter; protection from the elements; and protection from temperature extremes at all times. A sheltered housing facility may consist of runs or pens totally enclosed in a barn or building, or of connecting inside/outside runs or pens with the inside pens in a totally enclosed building." The term "mobile or traveling housing facility", also defined in part 1 of the regulations, means "a transporting vehicle such as a truck, trailer, or railway car, used to house animals while traveling for exhibition or public education purposes."

Some of the requirements we are issuing for housing facilities are applicable to housing facilities of any kind. As in the existing regulations, we include these standards of general applicability in one section, § 3.75, in which we also include many of the provisions of existing § 3.75. Additionally, we are amending the existing regulations that are specific to particular types of housing facilities, and include those provisions in separate sections of the final rule. In some cases, where the existing regulations would have been unchanged in substance, we made wording changes to clarify the intent of the regulations.

A number of commenters supported the provisions of proposed § 3.75 as written. Several commenters recommended that we require that housing facilities comply with Federal, State, and local laws and regulations relating to housing facilities for animals, so as to allow uniform enforcement by various jurisdictions. We are making no changes based on these comments. We are authorized under the Act to establish minimum standards for animal welfare, and this mandate may differ from those of other Federal, State, or local laws with regard to housing facilities.

Housing Facilities, General

Housing Facilities: Structure; Construction—Section 3.75(a)

Because nonhuman primates vary widely in size, weight, and range of activity, the design, composition and structural strength required of housing facilities varies as well. We proposed to require in proposed § 3.75(a) that the design, composition, and structural strength of a housing facility be appropriate for the particular species housed in it. For example, the actual structural requirements for a housing facility would differ depending upon whether it is used to house marmosets, a small nonhuman primate species, or great apes, a typically large species weighing more than 88 lbs. (40 kg.).

We also proposed in § 3.75(a) that the housing facility be constructed so as to restrict other animals and unauthorized humans from entering. A number of commenters addressed the issue of restricting the entrance of unauthorized humans, stating that the responsibility for maintaining adequate security at a facility belongs to the facility, and not to the Department. Others were concerned that, even if the facility made reasonable efforts to prevent the entry of unauthorized humans, the facility would still be liable for the entry of trespassing individuals. Upon review of the comments, we agree that instances of forced entry at a regulated facility should not be violations of these regulations. In this final rule, we are therefore removing the requirement, as proposed in §§ 3.75 (a) and (b), that facilities restrict the entry of unauthorized humans.

A small number of commenters stated that the provision that facilities restrict the entrance of other animals should be changed to require only that the facilities restrict other animals from "easy access." We continue to believe that the provision is necessary and appropriate as proposed. Entry by other animals can be prevented by structural safeguards.

Housing Facilities: Condition and Site—Section 3.75(b)

In proposed § 3.75(b), we proposed to add the requirement that a dealer's or exhibitor's housing facility be physically separated from any other business. When a housing facility is located on the same premises as any other business, there is likely to be increased traffic and activity, which is known to be distressful to nonhuman primates. Also, when more than one dealer maintains facilities on the premises, it can be difficult to determine which dealer is responsible for which animals and for the conditions of the facility. This has made inspection and enforcement of the regulations difficult. To avoid these difficulties we proposed to require that housing facilities, other than those maintained by research facilities and Federal research facilities, be physically separated from other businesses. As proposed, the means of separation used would have had to have been constructed so that it prevents unauthorized humans, and animals the size of dogs, skunks, and raccoons, from going through it or under it. We did not propose to impose these requirements upon research facilities because they are often part of a larger sponsoring establishment, such as a university or pharmaceutical company, and responsibility for animal and site conditions rests with that establishment. Therefore, we have not encountered the enforcement difficulties noted above with respect to research facilities. As discussed in this supplementary information under the preceding heading, we are removing the requirement that the means of separation prevent access by unauthorized humans.

We also proposed in § 3.75(b) that housing facilities and areas used for storing animal food and bedding be kept free of any accumulation of trash, weeds, and discarded material, in order to prevent unsanitary conditions, diseases, pests, and odors. The need for orderliness applies particularly to animal areas inside of housing facilities, and we proposed that they must be kept free of clutter, including equipment, furniture, or stored material, except for materials actually used and necessary for cleaning the area, and fixtures and equipment necessary for proper husbandry practices and research needs. The only commenters who specifically addressed proposed § 3.75(b) supported those provisions as written, and we are making no changes in this final rule.

Housing Facilities: Surfaces; General Requirements—Sections 3.75 (c)(1) and (c)(2)

In proposed § 3.75(c), we proposed to include requirements concerning housing facility surfaces that are common to all types of facilities. The existing regulations require that interior

surfaces of indoor housing facilities be constructed and maintained so that they are substantially impervious to moisture and may be readily sanitized. They do not specify frequency of sanitization. They also do not provide any requirements for building surfaces used in outdoor housing facilities.

We proposed to remove the requirement that housing facilities have impervious surfaces, because many can simulate more natural environments by providing dirt floors and planted areas that are beneficial to the nonhuman primates' psychological well-being. In proposed § 3.75(c)(1), we provided that floors could be made of dirt, absorbent bedding, sand, gravel, grass, or other similar material that can be readily cleaned or is removable.

We proposed that any surfaces that come in contact with nonhuman primates would have to be maintained regularly so that they are kept in good condition. As proposed, interior surfaces and furniture-type fixtures or objects within the facility, such as perches, swings, and dens, would have to be made so that they can be readily cleaned and sanitized, or removed or replaced when worn or soiled. We proposed to add this requirement because we would no longer require impervious surfaces under our proposal, in an effort to encourage provision of more natural environments for the animals. Because porous surfaces may not be adequately sanitized, we proposed to require instead that they be removed or replaced when worn or soiled. This requirement appeared in our proposal in proposed § 3.75(c)(2). Otherwise, as proposed, the manner of construction and the materials used would have to allow for cleaning and sanitization.

In proposed § 3.75(c)(1), we proposed to require that surfaces that come in contact with nonhuman primates be free of jagged edges or sharp points that could injure the animals, as well as excessive rust that prevents the required cleaning and sanitization or affects the structural integrity of the surfaces.

Many commenters supported § 3.75(c)(1) as written. One commenter stated that proposed § 3.75(c)(1) did not adequately convey that rust can be a health hazard. The regulations as proposed prohibit excessive rust. Based on our experience enforcing the regulations, however, we have not found superficial rust to be a problem with regard to sanitization. We are therefore making no changes based on this comment.

Housing Facilities: Surfaces: Cleaning—Section 3.75(c)(3)

In proposed § 3.75(c)(3), we proposed to require that hard surfaces that come in contact with nonhuman primates be spot-cleaned daily and sanitized in accordance with § 3.84 of the proposed regulations to prevent any accumulation of excreta or disease hazards, unless the nonhuman primates engage in scent marking. Under those provisions, such hard surfaces in indoor primary enclosures would have to be sanitized at least once every two weeks. As we discussed in the supplementary information of our proposal, scent marking is an inborn method used by certain species of nonhuman primates in nature (such as species of prosimians, marmosets, tamarins, and callimico) to establish their territory and for identification by other members of the species. Animals can detect that another member of the species has occupied a site by the scent left behind and can locate companions in this manner. It is distressful for these nonhuman primates to have their scent marks eliminated, since they lose their territorial claim and their frame of reference. We therefore proposed that hard surfaces that come in contact with nonhuman primates that scent mark be sanitized or replaced at regular intervals that would be determined in accordance with generally accepted professional and husbandry practices.

In proposed § 3.84(b)(3), we provided various methods of sanitizing primary enclosures. Because these methods are effective in general for sanitization of hard surfaces that nonhuman primates come in contact with, except for dirt floors and planted areas, under our proposal any of them could be used for the sanitization required by proposed § 3.75(c)(3). The method of sanitization would be determined by the housing facility operator. As proposed, planted enclosures and floors made of dirt, absorbent bedding, sand, gravel, grass, or other similar material would have to be raked or spot-cleaned with sufficient frequency to ensure all animals the freedom to avoid contact with excreta. We proposed that contaminated flooring material would have to be removed if raking and spot-cleaning does not eliminate odors, diseases, insects, pests, or vermin infestation. The material could then be replaced or a different material could be used. As proposed, all other surfaces of housing facilities would have to be cleaned and sanitized when necessary to satisfy generally accepted husbandry standards and practices.

A small number of commenters opposed what they termed rigid specifications for cleaning practices, including daily spot-cleaning, and recommended that the regulations instead allow flexibility through the use of professional judgment. We do not consider the regulations as proposed to be unnecessarily stringent. For example, with regard to floors not made of hard materials, the proposed regulations require only that they be raked or spot-cleaned with sufficient frequency to ensure all animals the freedom to avoid contact with excreta. Hard surfaces with which the animals come in contact must be cleaned daily, but only by spot-cleaning, to prevent accumulation of excreta and disease hazards. Such cleaning is necessary to ensure the well-being of the animals housed.

A small number of commenters recommended that the regulations require daily spot-cleaning, even for animals that scent mark. An equal number of commenters opposed spot-cleaning for scent marking species. Upon review of the issue, we determined that spot-cleaning, by its nature, will not be disruptive of scent marking species, and, as we stated in our proposal, is necessary in general for adequate cleaning. We are therefore amending this final rule to require that daily spot-cleaning be carried out for all species, even those that scent mark.

The regulations as proposed required cleaning to prevent an accumulation of excreta. A number of commenters stated that it would be impossible to prevent any accumulation of excreta, and recommended that we delete the word "any" before the word "accumulation." We consider the commenters' point a valid one and are making the recommended change.

Several commenters recommended that the cages of scent marking species be intensely sanitized in sections every 24 hours, to allow scent to remain in enclosures at all times. We do not consider it practical or necessary to specifically require such a sanitization procedure. However, there is nothing in the proposed regulations to prohibit such a procedure, provided the enclosure as a whole is adequately sanitized in accordance with the regulations.

A small number of commenters stated that certain types of primary enclosures, such as hanging cages, should not have to be sanitized at least every 2 weeks, given the fact that waste material can drop freely from such enclosures and the fact that periodic removal of nonhuman primates from their enclosure can cause stress to the animals. We are making no

changes based on these comments. Even cages such as hanging cages will become soiled and will retain a certain amount of waste material. We consider the sanitization requirements as proposed necessary to minimize the risk of contamination and disease spread.

One commenter stated that it was unclear whether § 3.75(c)(3) as proposed may be applied as a standard looser than those set forth in proposed § 3.84 for the sanitization of primary enclosures. There is nothing contradictory between §§ 3.75 and 3.84, and we do not consider further clarification necessary.

Several commenters stated that enclosures for scent marking species should be spot-cleaned with soap and water daily. Although the use of soap and water is an effective method of cleaning, it is not the only effective method. We therefore do not consider it appropriate to require it as the only allowable cleaning method.

Housing Facilities: Water and Electric Power—Section 3.75(d)

Existing § 3.75(b) provides requirements for water and electric power. It specifies that reliable and adequate water and electric power must be made available "if required to comply with other provisions of this subpart." In the proposed rule, we set forth the provisions concerning water and electric power in § 3.75(d). We proposed there to eliminate the qualifying statement cited above, and to require reliable electric power that is adequate for heating, cooling, ventilation, lighting, and other husbandry requirements, and potable running water for the nonhuman primates' drinking needs and adequate for cleaning and for carrying out other husbandry requirements.

Many commenters supported the provisions of § 3.75(d) as written. One commenter opposed these provisions without explanation. Lacking evidence to the contrary, we continue to consider the provisions as proposed necessary and appropriate, and are making no changes in this final rule.

Housing Facilities: Storage—Section 3.75(e)

We proposed in § 3.75(e) to expand the regulations in existing § 3.75(c) concerning proper storage of food and bedding supplies. We proposed to retain the requirements that food and bedding be stored so as to protect them from vermin infestation or contamination, and proposed that food requiring refrigeration must be stored accordingly. We proposed requirements to ensure further the quality of the physical environment surrounding nonhuman primates. We proposed to add a requirement that open food and bedding be stored in leakproof containers with tightly fitting lids to prevent spoilage and contamination. In proposed § 3.75(e), we proposed to require that substances that would be toxic to nonhuman primates be stored away from food storage and preparation areas, but proposed to allow them to be stored in the animal areas if kept in cabinets.

Under our proposal, only the food and bedding in use could be kept in animal areas; when they were not in use they would have to be properly stored. In addition, as proposed, all food would have to be stored so as to prevent contamination or deterioration of its nutritive value. The supplies would have to be stored off the floor and away from the walls, to allow cleaning around and underneath them.

A small number of commenters specifically supported proposed § 3.75(e) as written. A number of commenters stated that storage of food and bedding near walls should be permissible. One commenter stated that if food and bedding supplies can be moved for cleaning, it should be permitted that they be stored next to a wall. We consider the provision restricting storage near walls necessary, both to allow for cleaning and to minimize problems with vermin, and we are making no changes based on these comments.

Several commenters stated that the regulations should prohibit all storage of toxic materials in animal areas. If toxic substances are stored in cabinets, the risk of their causing harm to animals is minimal. However, we agree that to reduce the danger to animals as much as possible, toxic substances stored in animal areas should be limited to those required for normal husbandry practices. We are therefore adding such a provision in this final rule.

Housing Facilities: Drainage and Waste Disposal—Section 3.75(f)

The regulations we proposed would continue to require that housing facilities provide for removal and disposal of animal and food wastes, bedding, dead animals, and debris, as provided in existing § 3.75(d). We proposed to clarify this requirement so that it clearly applies to all fluid wastes, and to include a requirement that arrangements must be made for regular and frequent collection, removal, and disposal of wastes, in a manner that minimizes contamination and disease risk. The regulations as proposed also contained the requirements that trash containers be leakproof and tightly closed, and that all forms of animal waste, including dead animals, be kept out of food and animal areas.

Requirements for drainage systems are provided in existing §§ 3.76(e) and 3.77(d) for indoor and outdoor facilities, respectively. Because all types of animal housing facilities, including sheltered housing facilities and mobile or traveling housing facilities, require a proper disposal facility and drainage system, we proposed to consolidate all drainage and waste disposal requirements in proposed § 3.75(f). We proposed to expand the requirements for drainage systems to provide that in all types of housing facilities, whether open or closed drains, waste sump ponds, or settlement ponds are used, they must be properly constructed, installed, and maintained, and they must minimize vermin and pest infestation, insects, odors, and disease hazards. As part of this safeguard, we proposed to require that waste sump ponds and settlement ponds be located an adequate distance from the animal area of the housing facility to prevent problems with vermin, pests, odors, insects, and disease hazards. As proposed, drainage systems would also have to eliminate animal wastes and water rapidly, so that the animals can stay dry. Traps would be necessary in closed drainage systems to prevent the backflow of gases and the backup of sewage onto the floor. Additionally, we proposed that puddles of standing water must be mopped up or drained so that the animals stay dry.

A small number of commenters specifically supported the provisions of proposed § 3.75(f) as written. A large number of commenters interpreted the provisions regarding the prevention of odor and sewage as a requirement that closed drainage systems include backflow valves. Many commenters stated that installing such valves would be prohibitively expensive. The proposed provisions did not specifically require backflow valves. The provisions in question called for essentially the same standards as those already required under the existing regulations. We therefore do not expect facilities to experience significant practical or financial difficulties in meeting this standard.

A small number of commenters opposed the proposed requirement that trash containers have lids. We are making no changes based on these comments. We consider the covering of trash containers necessary to control insects and odors. Under these regulations, the use of lids is required

only in animal areas and food storage and preparation areas, not in office areas.

A number of commenters stated that it would be difficult to remove all puddles from surfaces in outdoor housing, especially during rain. Other commenters recommended that the proposed provisions regarding puddles be rewritten to state that free water in the housing facilities should be dealt with in a manner that ensures all animals the freedom to avoid sprays and puddles. One commenter stated that because some primates enjoy playing in puddles, decisions concerning standing water should be left to the facility. Another commenter stated that it should be required that puddles of water in animal areas be mopped up or drained only if animals can come in contact with the puddles.

We agree with the commenters that it would be impossible to ensure that all water is removed from animal areas at all times. The intent of the proposed provisions is to require removal of water as rapidly as possible, so as to protect animals from being soiled, and to prevent the propagation of pests and diseases. We consider this intent to be adequately conveyed in the requirement that standing puddles of water in animal areas must be mopped up or drained so that the animals stay dry.

One commenter stated that it is impossible to eliminate standing water in outdoor enclosures, and that, therefore, raised covered platforms should be required so as to allow animals to remain dry. We are making no changes based on this comment. Outdoor facilities usually allow enough space so that animals can avoid puddles and soiling. Additionally, outdoor housing facilities are required by the regulations to contain shelter to protect nonhuman primates from the elements.

One commenter opposed what the commenter termed the relaxation of regulations requiring the daily removal of animal and food wastes in nonhuman primate enclosures. We do not agree with the commenter's interpretation of the regulations. Section 3.84 requires that excreta and food waste be removed from each indoor primary enclosure daily. The provisions in § 3.75(f) deal with the collection, removal, and disposal of wastes from the housing facility.

Housing facilities: Washrooms and Sinks—Section 3.75(g)

We proposed to retain the requirement contained in existing § 3.75(e) that washing facilities be available to animal caretakers for their cleanliness, and to include it in proposed § 3.75(g). The only comments we received regarding this provision supported it. We are therefore making no changes to § 3.75(g) in this final rule.

Requirements for Different Types of Housing Facilities

The existing regulations specify two kinds of housing facilities, indoor and outdoor. These terms are defined in Part 1 of the regulations. An indoor housing facility is defined as "any structure or building with environmental controls housing or intended to house animals" that is fully enclosed and has a continuous connection between the floor, ground, and ceiling, is capable of being temperature and humidity controlled, and has at least one door for entry and exit. An outdoor housing facility is defined as "any structure, building, land, or premises, housing or intended to house animals," and which does not meet the definition of an indoor housing facility or a sheltered housing facility and in which temperatures cannot be controlled within set limits. We proposed to add two additional sections containing requirements for sheltered housing facilities and mobile or traveling housing facilities, previously defined in this document.

Several commenters stated that the standards for outdoor housing facilities for nonhuman primates should differentiate between research facilities and dealers/breeders. We disagree. The needs of the animals housed are the same no matter which entity happens to be holding them. We are therefore making no changes based on these comments.

Requirements for Indoor Housing Facilities, Mobile or Traveling Housing Facilities, the Sheltered Part of Sheltered Housing Facilities, and Shelters in Outdoor Housing Facilities

Three of the four types of housing facilities that may be used to house nonhuman primates are either enclosed or partially enclosed. They are indoor housing facilities, mobile or traveling housing facilities, and the sheltered portion of sheltered housing facilities. We proposed to require that all of these enclosed types of housing facilities be required to provide heating, cooling, and ventilation, and to maintain temperatures within the temperature limits provided in existing paragraphs (a) and (b) of § 3.76, "Facilities, indoor," as discussed below. Additionally, we proposed to establish a minimum temperature for shelters provided in outdoor facilities.

1. Temperature Requirements—Sections 3.76(a), 3.77(a), 3.78(b), and 3.79(a)

We proposed that there must be sufficient heat provided to protect nonhuman primates from cold temperatures. We proposed that, in indoor facilities, the sheltered parts of sheltered housing facilities, and mobile or traveling housing facilities, the ambient temperature must not fall below 45 °F (7.2 °C) and must not rise above 95 °F (35 °C) when nonhuman primates are present. We also proposed to require that shelters provided in outdoor facilities provide heat to nonhuman primates to prevent the ambient temperature from falling below 45 °F (7.2 °C), except as directed by the attending veterinarian and in accordance with generally accepted professional and husbandry practices. Additionally, we proposed that, in indoor housing facilities, the sheltered parts of sheltered housing facilities, and mobile or traveling housing facilities, the actual ambient temperature must be maintained at a level that ensures the health and well-being of the species housed, as directed by the attending veterinarian, in accordance with generally accepted professional and husbandry practices. As proposed, auxiliary ventilation such as fans or air conditioning would have to be provided when the temperature is 85 °F (29.5 °C) or higher.

We received a large number of comments with regard to the issue of temperature in indoor, sheltered, and mobile and traveling housing facilities, and concerning the minimum temperature for shelters in outdoor facilities. A number of commenters stated that our proposed temperature ranges were too stringent and did not encompass natural conditions for many species. A number of commenters also recommended that we allow the attending veterinarian to use professional judgment when determining appropriate temperature levels. A number of other commenters stated that our proposed temperature ranges were too lenient in general, or too lenient except for certain specified species.

We continue to believe that the well-being of nonhuman primates housed in enclosed facilities requires that parameters be established for hot and cold temperatures. We do not believe that the needs of the animals housed vary so widely as to warrant the removal of all temperature limits. Upon review of the comments calling for more stringent temperature limits, and those recommending more lenient limits, we have decided that changes to the

proposed rule are appropriate. For example, while certain species or animals may be acclimated to temperatures exceeding 95 °F, the confined nature of enclosed facilities will make such high temperatures intolerable for other animals. Also, given the heightened effect of heat in enclosed areas, even animals normally acclimated to temperatures higher than 95 °F will not be able to tolerate high temperatures in an enclosed area for extended periods of time. Therefore, in this final rule, we are establishing general temperature limits more stringent than those proposed, while at the same time allowing flexibility to accommodate animals that can tolerate temperatures outside those limits. We are providing in this final rule that the ambient temperature in the enclosed facilities must not fall below 45 °F (7.2 °C) for more than 4 consecutive hours when nonhuman primates are present, and must not rise above 85 °F (29.5 °C) for more than 4 consecutive hours when nonhuman primates are present. In sheltered housing facilities, exposure to temperatures above 85 °F must be approved by the attending veterinarian, in accordance with generally accepted husbandry practices.

A small number of commenters stated that the regulations should be restated to ensure that animals are maintained at temperatures appropriate for their species, or that they should include temperature specifications by species or groups. Because of the variation among nonhuman primates, even those of the same species, as to acclimation and housing conditions, we do not consider it appropriate or practical to establish a system of allowable temperatures based on species. The regulations in this final rule provide that the temperature in enclosed facilities must be maintained within a range that ensures the health and well-being of the animals housed.

A number of commenters stated that it would not be practical or feasible to attempt to control temperatures in outdoor primate housing facilities, especially if the facility is a large corral type. As we discussed in the proposal, while we agree that it would be difficult or impossible to control the ambient temperature in the outdoor housing facilities, the regulations as proposed require only that the animal shelters in such facilities be maintained at temperatures no lower than 45 °F (10 °C).

Some of these commenters expressed concern that the use of heat lamps to achieve the necessary temperatures would be potentially hazardous. In reviewing this issue, it has always been our intent that supplementary heat be provided in shelters in outdoor housing facilities in a way so as not to present hazards. We have inserted the word "safely" in § 3.78(a) to clarify this intent. Heat lamps are one possible method of maintaining required temperatures. The proposed regulations do not require their use.

Proposed § 3.78(a) provided that only acclimated nonhuman primates may be kept in outdoor housing facilities. Several commenters stated that determinations regarding the acclimation of nonhuman primates should be the responsibility of the attending veterinarian. The commenters' recommendation is consistent with our intent regarding § 3.78(a) as proposed, and we are amending that paragraph accordingly.

One commenter stated that even acclimated animals should not be permitted at outdoor facilities when the temperature falls below 45 °F. We disagree. Certain nonhuman primates can be acclimated to temperatures below 45 °F. As long as they are acclimated, there is no reason to prohibit them from outdoor facilities at the lower temperatures.

2. Ventilation and Relative Humidity Level—Sections 3.76(b), 3.77(b), and 3.79(b)

In our proposal, we proposed that the existing requirement in § 3.76(b) for ventilation of indoor housing facilities would be applicable to the three types of enclosed housing facilities, to provide for the health, comfort, and well-being of nonhuman primates. For sheltered housing facilities, we proposed that the requirement would apply only to the sheltered portion of the facility, since the outdoor portion could not be humidity controlled. We proposed that in indoor housing facilities and the sheltered part of sheltered housing facilities the relative humidity must be at a level that ensures the health and well-being of the species housed, as directed by the attending veterinarian, in accordance with generally accepted professional and husbandry practices. We also proposed that ventilation must be provided to minimize odors, drafts, and ammonia levels in these housing facilities and that mobile or traveling housing facilities must be ventilated to minimize exhaust fumes, and to protect the well-being of the nonhuman primates.

A small number of commenters specifically supported the ventilation requirements in the proposed rule. A small number of commenters recommended that it be required that the relative humidity in enclosed facilities be maintained between 30 and 70 percent. One commenter recommended that specific humidity standards be established to better ensure compliance with the regulations. As we stated in our proposal, the effect on animals of a particular level of humidity depends to a great degree on other factors, such as temperature and ventilation. We therefore consider it appropriate as proposed to allow the maintenance of the humidity level in accordance with generally accepted professional and husbandry practices.

A small number of commenters stated that it is unnecessary to require as proposed that auxiliary ventilation be used at temperatures exceeding 85 °F (29.5 °C), because the regulations as proposed require in general that facilities be sufficiently ventilated to provide for the nonhuman primates' health and well-being. While we agree that the requirement for auxiliary ventilation at higher temperatures falls under the general requirement for adequate ventilation, we continue to believe that it serves a specific and necessary purpose. Based on our experience enforcing the regulations, achieving adequate ventilation at moderate temperatures can be accomplished through various means, such as either natural or mechanical ventilation. However, at higher temperatures, auxiliary ventilation becomes necessary on a uniform basis in ensuring the health and well-being of the animals. We are therefore making no changes based on the comments.

A number of commenters recommended that the regulations require that fresh air always be provided to nonhuman primates, or that if fresh air cannot be supplied, an exemption must be submitted to the Department for approval. We disagree. The regulations as proposed require that sufficient ventilation be supplied to provide for the animals' health and well-being. In many cases, recycled air is more healthful than what would be considered "fresh" air, due to the use of air-filtering mechanisms. We are therefore making no changes based on these comments.

One commenter requested that the regulations clarify what constitutes excessive odor. The requirement that odor be minimized is included in the existing regulations. While we agree that it does not lend itself to precise measurement, we consider the word "minimize" to be sufficiently measurable for enforcement purposes. Our enforcement experience has shown that excessive odor generally can be measured against the standard of what is reasonable in the circumstances in

accordance with generally accepted husbandry practices.

One commenter recommended that the regulations require that additional ventilation be supplied in mobile or traveling facilities when the temperature exceeds 80 °F. The commenter's recommendation was not supported by additional data to demonstrate why the change from 85 °F, as proposed, would be necessary, and we are making no changes based on this comment.

3. Lighting—Sections 3.76(c), 3.77(c), and 3.79(c)

We proposed to require, at the three types of enclosed housing facilities included in the proposed regulations, sufficient light to permit routine inspection and cleaning of the facility, and observation of the nonhuman primates. We also proposed that animal areas must be provided a regular diurnal lighting cycle of either natural or artificial light, and that lighting must be uniformly diffused throughout animal facilities and provide sufficient illumination to aid in maintaining good housekeeping practices, adequate cleaning, adequate inspection of animals, and for the well-being of the animals. We proposed to retain safeguards against exposing nonhuman primates to excessive light and to apply them to all enclosed housing facilities.

A small number of commenters supported the proposed requirements for lighting as written. A small number of commenters objected to the proposed requirement for lighting on a regular diurnal cycle, and recommended instead that the regulations require a specific number of hours of light and darkness a day. Upon review of the comments, we continue to believe it would not be beneficial in all cases to establish one specific timetable for lighting. Such a specific timetable might not be necessary or warranted in all cases and might not coincide with normal outdoor lighting cycles at a particular time of year. The wording as proposed is designed to allow for sufficient lighting necessary for the well-being of the animals and the performance of required activities.

A number of commenters objected to the provision in our proposal that light in enclosed housing facilities be uniformly diffused. Several commenters stated that the regulations should require only that the nonhuman primates be protected from excessive light. The requirement in our proposal for the uniform diffusion of light is very similar to the requirement in the existing regulations for "uniformly distributed illumination." Our intent in retaining the requirement for uniform lighting was to allow for proper cleaning, observation of animals, and inspection, without the need for an additional light source, such as a flashlight. We consider this standard to be both necessary and attainable.

Several commenters stated that the regulations should allow for professional judgment with regard to light intensities. One commenter opposed the proposed requirement that nonhuman primates be protected from excessive light, because, according to the commenter, this would require the moving of primary enclosures or housing facilities. The regulations as proposed contain only minimum and maximum requirements for light intensity. We consider these limits necessary for proper husbandry practices and the protection of the animals. Within these limits, the regulations allow significant variation as to lighting levels. We do not agree that protecting animals from excessive light will require moving of housing facilities, although it may require the moving of certain primary enclosures. Moving enclosures, however, is only one way of protecting animals from excessive light. We therefore do not consider it appropriate or necessary to change the regulations as proposed based on these comments.

A number of commenters recommended that we provide the authority to make exceptions to lighting standards to the Committee at research facilities. Section 2.38(k)(1) of part 2 of the regulations already provides that exceptions to the standards in part 3 of the regulations may be made when such exceptions are specified and justified in the proposal to conduct an activity and are approved by the Committee.

Requirements for Outdoor or Partially Outdoor Housing Facilities

1. Shelter from the Elements—Sections 3.77 (d) and (e): Sections 3.78 (b) and (c)

Outdoor housing facilities cannot be temperature controlled. We proposed to allow only those nonhuman primates that are acclimated to the prevailing seasonal temperature and that can tolerate without stress or discomfort the range of temperatures, humidity, and climatic conditions known to occur at the facility at the time of year they are housed there to be housed in outdoor facilities, in order to protect their physical welfare.

As in existing §§ 3.77 (a) through (c), our proposal provided that outdoor housing facilities must provide shelter from the elements and protection from various weather conditions, such as sun, wind, rain, cold air, and snow. For example, under our proposal, nonhuman primates would have to be provided with shade from the sun and protection from precipitation so that they may remain dry. This requirement appears in § 3.78(b) of the proposed rule. We proposed to require that the shelter provided be maintained in good repair, and that it be constructed in a manner and made of material that can be readily cleaned and sanitized in accordance with proposed § 3.75(c).

We proposed to make the requirement to provide protection from the elements applicable also to sheltered housing facilities. We proposed to require that nonhuman primates be provided shelter from the elements at all times. Accordingly, under our proposal, unless the nonhuman primates have continual ready access to the sheltered portion of the facility, some additional form of shelter would have to be provided that satisfies the requirements contained in paragraphs (a) through (e) of proposed § 3.77.

A small number of commenters specifically supported the provisions regarding shelters as written. Some commenters recommended that we delete the requirement for shelter at outdoor facilities. We consider such shelters necessary for the health and well-being of nonhuman primates housed in such facilities and are making no changes to our proposal based on these comments.

In proposed §§ 3.77(e) and 3.78(c), we proposed to require that the shelters in both sheltered and outdoor housing facilities be large enough to provide protection comfortably to all the nonhuman primates housed in the facility at the same time. As proposed, sheltered housing facilities and outdoor housing facilities would be required (1) to have multiple shelters if there are aggressive or dominant animals present that might deter other nonhuman primates from utilizing the shelters when they so desire, or (2) to provide some other means to ensure protection for each nonhuman primate housed in the facility.

A number of commenters stated that the requirement for multiple shelters in certain situations should be deleted, because it would not eliminate the problem of some nonhuman primates being too intimidated by others to seek shelter. The commenters stated that there is a dominant animal in every social group, and that, consequently, it would be impossible to guarantee that every animal would choose to join others in shelter. We are making no changes based on these comments. As we stated in the proposal, while we agree that it would be impossible to

force every animal to take shelter, providing sufficient multiple shelters when aggressive or dominant animals are present would ensure that all nonhuman primates in the facility will have access to shelter. If all animals do not have access to shelter, the facility can either increase the number of shelters or reduce the number of animals housed.

A number of commenters stated that proposed §§ 3.77(e) and 3.78(c) were redundant with §§ 3.77(d) and 3.78(b) respectively, and should be deleted. We disagree. Sections 3.77(d) and 3.78(b) set forth the type of shelter that is required. Sections 3.77(e) and 3.78(c) set forth the requirement that sufficient shelter or shelters be provided to allow all animals housed access to shelter.

A small number of commenters suggested specific alternatives to multiple shelters for ensuring that all animals housed have access to shelter. These suggested methods fall under the provision allowing for "other means" of ensuring protection for each animal. We do not consider it necessary or appropriate to limit alternatives by setting forth specific means in the regulations.

The provisions for shelter in outdoor or partially outdoor facilities require that the shelter provide protection from any weather conditions that might occur. A number of commenters recommended that this provision be deleted, because no shelter structure is likely to be effective during events such as hurricanes or tornadoes. We do not consider it appropriate to make the change recommended by the commenters. The required shelters must be able to provide shelter from reasonably foreseeable extremes of weather.

2. Perimeter Fence—Sections 3.77(f) and 3.78(d)

In proposed §§ 3.77(f) and 3.78(d), we proposed to require that unless a natural barrier exists that would restrict the animals to the housing facility and prevent unauthorized humans and animals from having contact with the nonhuman primates, a perimeter fence be placed around the outdoor areas of sheltered housing facilities and outdoor housing facilities. We proposed that the fence would have to be of sufficient height to keep unwanted species out, and that fences less than 6 feet high would have to be approved by the Administrator. We also proposed that the fence would have to be of sufficient distance from the outside wall or fence of the primary enclosure to prevent physical contact between animals inside the enclosure and outside the perimeter fence, and that fences less than 3 feet from the primary enclosure would have to be approved by the Administrator.

In certain settings a perimeter fence is not needed because the animals are protected by natural barriers, such as moats or swamps surrounding the facility. As proposed, the exception for natural boundaries would be subject to the Administrator's approval. Under our proposal, the perimeter fence could be slatted, latticed or of other similar design, as long as it was designed and constructed in a manner that restricts unauthorized humans and animals from entering or having contact with the nonhuman primates, including animals capable of digging underneath it, and that prevents small animals the size of dogs, raccoons, and skunks from entering through it. We proposed that the fence would not be required if the outside walls of the primary enclosure were high enough and built in a manner that prevents contact with or entry by other animals. To avoid the need for a perimeter fence we proposed to require that the outside walls of the primary enclosure be made of a heavy duty material such as concrete, wood, metal, plastic, or glass, that prevents unauthorized entry by and contact with humans and animals.

We also proposed to retain the provision that the perimeter fence be able to prevent the entry of unauthorized humans. We also proposed to retain such a provision in the conditions necessary to make alternative barriers acceptable in lieu of perimeter fences.

A small number of commenters specifically supported these provisions as written. A number of commenters specifically opposed the provisions requiring a perimeter fence. Some commenters stated that requiring a fence at least 6 feet high would not necessarily keep unwanted animals from entering the area occupied by the nonhuman primates; that even a fence of that height could be breached by certain animals. Other commenters recommended that we remove the requirement that the fence be able to keep out unauthorized humans, stating that the security of a facility is rightfully the concern of the facility. We disagree that a perimeter fence will not help protect the animals housed. The perimeter fence is not intended to ensure security for the facility, but rather, to protect against incidental contact with the nonhuman primates by other animals and people. We agree, however, that a fence of any practicable height will not be able to entirely eliminate entry by either humans or other animals. We do continue to believe that a fence at least 6 feet high will provide reasonable protection and deter the entrance of humans and other animals. To clarify the purpose of the perimeter fence, however, we are amending the proposal to require that such a fence "restrict" the entrance of animals and humans, rather than "prevent" their entrance, as proposed. We are making a like change in § 3.77(f)(1) as proposed regarding alternative methods of surrounding the animals.

A number of commenters stated that a facility not be considered in violation of the regulations in cases of unlawful intrusion, as long as the perimeter fence is adequately constructed with signs prohibiting unauthorized entry. A fence that reasonably restricts such entrance will be considered to be in compliance with the standards.

One commenter stated that a 4-foot perimeter fence would be just as effective in meeting the proposed standards as a 6-foot fence. Another commenter stated that a short, electric fence might suit some facilities better. One commenter stated that perimeter fence requirements should be flexible enough to allow the facility to meet its own needs. Another stated that primary enclosures of solid construction might not need a 6-foot-high fence. Based on the need to restrict the entrance of other animals and unauthorized humans, we consider 6 feet to be the minimum necessary fence height in most cases. However, the regulations as proposed allow for varying situations and needs by providing for approval by the Administrator of fences less than 6 feet high.

Several commenters expressed the opinion that requiring the written permission of the Administrator for fences less than 6 feet high exceeds the Department's authority. We disagree. The Secretary of Agriculture is authorized to promulgate whatever regulations he or she deems necessary to carry out the requirements of the Act.

One commenter stated that perimeter fence requirements should be standardized among species. We are making no changes based on this comment. The regulations in this final rule specify the need for a perimeter fence to restrict the entrance of other animals and unauthorized humans. Such a need exists for all nonhuman primates, and the type of fence used should not depend upon the species of nonhuman primate housed.

As we noted in the **"SUPPLEMENTARY INFORMATION"** of this rule under the heading **"EFFECTIVE DATES,"** many commenters pointed out that certain of the new standards would require

affected facilities to make extensive structural changes. The addition of the requirement for perimeter fences at sheltered and outdoor housing facilities are two such changes in the standards. Therefore, we are providing in §§ 3.77(f) and 3.78(d) of this rule that facilities must comply with the requirements for perimeter fences on and after February 15, 1994.

3. Additional Safety Requirement—Sections 3.77(g), 3.78(e), and 3.79(d)

We also proposed to add a requirement for facilities that are at least partially outdoors and are accessible to the public in order to protect nonhuman primates from the public and to protect the public from nonhuman primates. As proposed, public barriers would be required for sheltered housing facilities under proposed § 3.77(g), for outdoor housing facilities under proposed § 3.78(e), and for mobile or traveling housing facilities under proposed § 3.79(e). The regulations we proposed would require barriers preventing unauthorized physical contact between the public and nonhuman primates for fixed public exhibits and traveling animal exhibits, at any time the public is present, to protect both the public and the nonhuman primates. We also proposed to require that nonhuman primates used in trained animal acts or uncaged public exhibits be under the control and supervision of an experienced handler or trainer whenever the public is present. We proposed to allow trained nonhuman primates used in animal acts and uncaged public exhibits to have physical contact with the public, as allowed under § 2.131 of part 2 of the regulations, but only if the nonhuman primates are under the direct control and supervision of an experienced handler or trainer at all times during the contact, in order to prevent injury to both the nonhuman primates and the public.

A number of commenters objected to the proposed requirement that the barrier must prevent contact between nonhuman primates and the public. For the same reasons discussed above regarding perimeter fences, we are changing the word "prevent," as set forth in the proposal, to "restrict."

A number of commenters recommended that the regulations prohibit all contact between nonhuman primates and the public. While we agree that unauthorized contact must be restricted, we do not consider it necessary to prohibit all contact between nonhuman primates and the public, as long as the handling requirements set forth in § 3.78(e) as proposed are met.

Primary Enclosures

We proposed to revise completely existing § 3.78, "Primary enclosures," in accordance with the 1985 amendments to the Act. Under the amendments, the Secretary of Agriculture is directed to "promulgate standards to govern the humane handling, care, treatment, and transportation of animals by dealers, research facilities, and exhibitors." The standards must include minimum requirements "for a physical environment adequate to promote the psychological well-being of primates." (7 U.S.C. 2143(a) (2) (B)) Included among the primary enclosures subject to the regulations would be those used by circuses, carnivals, traveling zoos, educational exhibits, and other traveling animal acts and shows.

Our proposal was in contrast to existing § 3.78, which provides general requirements for construction and maintenance of primary enclosures and uniform space requirements for every nonhuman primate housed in a primary enclosure.

Primary Enclosures: General Requirements—Section 3.80(a)

Primary enclosures are defined in part 1 of the regulations as "any structure or device used to restrict an animal to a limited amount of space, such as a room, pen, run, cage, compartment, pool, hutch, or tether." We proposed in § 3.80(a) to continue to require that primary enclosures be structurally sound and maintained in good repair to protect the animals from injury, to contain them, and to keep other unwanted animals out, that they enable the animals to remain dry and clean, that they provide the animals with convenient access to clean food and water, that their floors be constructed in a manner that protects the animals from injury, and that they provide sufficient space for the nonhuman primates to make normal postural adjustments with freedom of movement.

We also proposed to require in proposed § 3.80(a) that the primary enclosures have no sharp points or edges that could injure the animals, that they keep unauthorized people and unwanted animals from entering the enclosure or having physical contact with nonhuman primates, that they provide shelter and protection from extreme temperature and weather conditions that can be dangerous to the animals' health and welfare, that they provide sufficient shade to protect all the animals contained in the enclosure at one time, and that they enable all surfaces to be readily cleaned and sanitized or replaced if worn or soiled.

One commenter specifically supported the provisions of proposed § 3.80(a) as written. A small number of commenters recommended that the regulations require that primary enclosures provide hiding areas out of sight from humans and other primates. If such hiding areas are necessary for certain species or animals, they are to be addressed under the provisions in § 3.81 of this final rule, which requires a plan including environment enhancement to promote psychological well-being. We do not consider it necessary or appropriate to include such a requirement for all primary enclosures.

Several commenters stated that the requirements in proposed § 3.80(a) would not be practical in outdoor housing facilities. We are making no changes based on these comments. There are no requirements in proposed § 3.80(a) that would be unnecessary or impracticable in outdoor facilities.

A large number of commenters took issue with our requirements in proposed §§ 3.80(a)(2)(iii) and (a)(2)(iv) that primary enclosures be constructed so as, among other things, to prevent the unauthorized release of nonhuman primates and to prevent the entry of unauthorized individuals. A large number of commenters stated that such requirements would create a need for individual cage locks, which would restrict emergency access to each animal. Upon review of the comments received, we agree that §§ 3.80 (a)(2)(iii) and (a)(2)(iv) as proposed could create impracticable and possibly unsafe conditions. For these reasons, and for the reasons relating to unauthorized humans discussed in this supplementary information under the heading "Housing Facilities: Structure; Construction—§ 3.75(a)," we are removing the proposed requirements that primary enclosures prevent the unauthorized release of nonhuman primates and prevent the entry of unauthorized individuals.

Section 3.80(a)(2)(vii) as proposed requires that primary enclosures be constructed so as to provide the nonhuman primates with easy and convenient access to clean food and water. A number of commenters stated that requiring easy access to food might be interpreted as prohibiting the use of enrichment devices containing food. We disagree. Although task-oriented and enrichment feeding devices may be part of the environment enhancement programs developed under § 3.81, a basic adequate diet must be made available to the nonhuman primates.

A number of commenters addressed the requirement in proposed § 3.80(a)(2)(x) that primary enclosures must have floors that are constructed in a manner that protects the nonhuman primates from injuring themselves. One commenter recommended that the provision state instead that primary enclosures must have floors that are constructed in a manner that protects the primates from having their appendages caught. Many other commenters specifically opposed the use of large wire mesh floors that would allow primates' hands and feet to slip through. We consider the commenters' concerns to be adequately addressed by § 3.80(a)(2)(x) as written.

A small number of commenters stated that proposed § 3.80(a)(2)(x) was written so as to imply that cage floors would have such small mesh that there will be an increased risk of contaminating food with feces. The intent of the Act is to provide for the health and well-being of the animals. Floors that cause injury to the animals by allowing their arms or legs to pass through do not comply with the intent of the Act, whether or not they prohibit the passage of feces. We do not consider the ease of cleaning to be a higher priority than the safety of the animals. Whatever the design of the floors, the animals in the enclosure must be provided access to clean food and water.

A number of commenters stated that certain wording within proposed § 3.80(a) was redundant. We disagree. Each of the provisions in proposed § 3.80(a) addresses a distinct need, and is necessary for proper enforcement.

Primary Enclosures: Minimum Space Requirements—Section 3.80(b)

In our proposal, we proposed to revise completely the minimum space requirements for nonhuman primates set forth in existing § 3.76(b) (1) and (2). The existing requirements specify that primary enclosures be "constructed and maintained so as to provide sufficient space to allow each nonhuman primate to make normal postural adjustments with adequate freedom of movement" and provide a minimum floor space equal to an area of at least three times the area occupied by each animal when standing on four feet, regardless of the size or condition of the animal.

The minimum enclosure sizes we proposed for all facilities are based on the typical weight of the species, except for brachiating species and great apes, in accordance with the following table:

Group	Weight		Floor area/animal		Height	
	lbs.	(kg.)	ft.²	(m²)	in.	(cm.)
1	under 2.2	(under 1)	1.6	(0.15)	20	(50.8)
2	2.2–6.6	(1–3)	3.0	(0.28)	30	(76.2)
3	6.6–22.0	(3–10)	4.3	(0.40)	30	(76.2)
4	22.0–33.0	(10–15)	6.0	(0.56)	32	(81.28)
5	33.0–55.0	(15–25)	8.0	(0.74)	36	(91.44)
6	over 55.0	(over 25)	25.1	(2.33)	84	(213.36)

In addition to the above proposed space requirements, we proposed that facilities must provide great apes weighing over 110 lbs. (50 kg) an additional volume of space in excess of that required for Group 6 animals, to allow for normal postural adjustments.

We proposed that nonhuman primates would be categorized into the six groups by the typical weight of animals of their species, except for infants (up to 6 months of age) and juveniles (6 months to 3 years of age) of various species, which may weigh so much less than adults of their species that they are grouped with lighter weight species unless they obviously require greater space to make normal postural adjustments and movements, and except for brachiating species and the larger great apes. Brachiating species are those that typically hang or swing by their arms so that they are suspended in the air and fully extended. We included the following as examples of the types of nonhuman primates that fall into each group:

Group 1—Marmosets, Tamarins, and infants (less than 6 months of age) of various species.

Group 2—Capuchins, Squirrel Monkeys and species of similar size, and juveniles (6 months to 3 years of age) of various species.

Group 3—Macaques and African species.

Group 4—Male Macaques and large African species.

Group 5—Baboons and nonbrachiating species larger than 33.0 lbs. (15 kg.).

Group 6—Great Apes over 55.0 lbs. (25 kg), except as provided for Great Apes weighing over 110 lbs. (50 kg), and brachiating species.

In our proposal, we stated our belief that, in most instances, the specified dimensions for the various species would be sufficient to promote the nonhuman primates' psychological well-being, and the table could be used to determine the minimum space requirements for each species. As proposed, however, if a nonhuman primate were unable to make normal postural adjustments and movements, or could not do so without difficulty, notwithstanding the table, it would have to be provided greater space. We proposed that the space requirements would be minimum standards that must be provided to each nonhuman primate contained in a primary enclosure, unless otherwise specified. However, our proposal provided that, in the case of mothers with infants less than 6 months of age, the space and height requirements would be those required for the mother. As proposed, the minimum height for the animals would be the minimum height requirement for the largest nonhuman primate in the enclosure. Also, the regulations as proposed would not allow the size of a primary enclosure to be reduced because it contains a suspended fixture, such as a swing or a perch, except that low perches and ledges would be counted as part of the floor space.

A small number of commenters specifically supported the minimum space requirements proposed. A much larger number of commenters took issue with the minimum space requirements we proposed to require. Some expressed general opposition to increased space requirements for nonhuman primates. A number of commenters stated that the proposed space requirements were arbitrary and lacking in scientific basis, or would not promote increased activity among nonhuman primates. A large number of commenters stated that the proposed requirements were inadequate, or more specifically that they did not meet the space needs of great apes. Some stated that alternative methods for determining space requirements should be adopted. The minimum space requirements set forth in the proposal were based on data

supplied by an expert committee on primates convened prior to the initiation of rulemaking, on consultation and coordination with HHS, on comments received from the public in response to our original proposal, and on our experience enforcing the regulations. Based on this information collection and consultation, we are confident that the space requirements adopted in this rule represent current professionally accepted standards.

Several commenters stated that the examples we provided of which types of nonhuman primates typically fall under which weight group were incorrect in some cases and should be deleted. We are making no changes based on these comments. The examples we provided are just that. They are included in a footnote and are meant as guidelines for appropriate grouping of nonhuman primates. The examples provided are based on the NIH Guide, and are not meant to apply to every animal of a given species. The actual space requirements are based on weight, not species.

Several commenters stated that the regulations should adopt the space recommendations of the American Association of Zoological Parks and Aquariums (AAZPA), as published in our original proposal. While we encourage the adoption of the AAZPA recommendations where possible, we do not consider it appropriate to require them in the regulations. Under the Act, we establish minimum standards for animal care. The AAZPA standards exceed the minimum necessary for the humane care of nonhuman primates.

A small number of commenters either opposed counting low perches or ledges as part of the floor space, or requested clarification as to the height at which low perches or ledges would be considered part of the floor space. We agree that the regulations as proposed are unclear on this point. We are therefore adding language to § 3.80(b) of these regulations to provide that low perches and ledges that do not allow the space underneath them to be comfortably occupied by the animal will be counted as part of the floor space.

One commenter stated that young primates should be provided the same space as adults of their species, to allow them to grow. Another commenter stated that there is no evidence to indicate that space requirements should be different with regard to the sex of the species. The proposed space requirements are based on the weight of the animal, not on whether it is young, or male or female. The proposed regulations do contain a footnote that provides examples of which types of nonhuman primates typically fall into which weight groups. In these groups, the differences in weight between males and females, and young primates and adults, is taken into consideration. However, this footnote is included merely as guidance. With regard to young primates, it is expected that they will be transferred to appropriate cages based on their weight as necessary.

One commenter recommended that cage size be related to total biomass, instead of the sum of each individual primate. We disagree. Two primates weighing 2 pounds each, require more space than one primate weighing 4 pounds. We do not consider space requirements based on total biomass to be sufficient to meet the space needs of the animals, nor to provide for their psychological well-being.

One commenter recommended that a specific space requirement for apes over 110 pounds should be listed in the primate space table. We are making no changes based on this comment. The regulations as proposed require that special attention be given to the larger great apes. Not only must they be provided with an additional volume of space to allow for normal postural adjustments, in excess of that required in the top group of space requirements in the space table, but they must also be provided with additional opportunities for species-typical behavior. We are confident these requirements will adequately meet the space and psychological needs of larger great apes.

A small number of commenters recommended that individually housed nonhuman primates be placed in primary enclosures with minimum dimensions for only short periods of time, and only for specified reasons—such as due to approved protocols or normal veterinary care requiring isolation. While we agree that individually housed nonhuman primates require additional enrichment for their psychological well-being, such enrichment would be provided for under the requirements in § 3.81 as proposed, concerning environment enhancement to promote psychological well-being.

A small number of commenters stated that in proposing minimum space standards the Department had ignored activity and behavior typical of varying species. A very large number of commenters specifically opposed the height requirements set forth in our proposal, stating that those provisions did not allow enough space for climbing to promote the psychological well-being of nonhuman primates. As we discussed in our proposal, we agree that the proposed space requirements alone do not address the issue of activities particular to varying species. However, under the regulations, each regulated facility will be required to develop a plan for promoting the needs of the nonhuman primates housed in the facility. We consider this type of plan to be the most practical way of addressing species-typical activity.

A small number of commenters stated that primate cage dimensions should be based on whether the species is arboreal or terrestrial. We do not believe that such considerations would be practical. In most cases, nonhuman primates are neither exclusively arboreal nor exclusively terrestrial, and basing cage sizes on such considerations would not be feasible. Additional height requirements for brachiating species are already included in the regulations as proposed. For other species, if species-typical activity requires an arboreal environment, that would need to be addressed in the plan for environment enhancement required under § 3.81 of the regulations as proposed.

A small number of commenters recommended the establishment of a separate space group for brachiating species, utilizing crown-heel and span dimensions. Based on the size of the largest brachiating species, and on their postural needs, we consider including them in the largest space requirements to be necessary and adequate to meet their needs. We are therefore making no changes based on the comments.

We received some comments recommending that determining appropriate space requirements should be the responsibility of the attending veterinarian, in accordance with generally accepted professional and husbandry practices. As we discussed in our proposal, while we agree that the attending veterinarian should be given some latitude in determining cage size, we believe that such decisions should be made in the context of specific minimum space requirements that would otherwise be required. In § 3.80(b)(4) as proposed (redesignated as § 3.80(b)(2)(iii) in this final rule), we provided that any exemption from the specified space requirements must be required by a research proposal or the judgment of the attending veterinarian, and be approved by the facility's Committee. In the case of dealers and exhibitors, any exemption must be required in the judgment of the attending veterinarian, and must be approved by the Administrator.

Several commenters expressed the opinion that the provisions as proposed allow too much flexibility to regulated entities regarding minimum space requirements for nonhuman primates.

We consider the minimum space requirements to be quite specific as proposed, and are making no changes based on these comments.

A small number of commenters stated that it would be inappropriate to require a minimum 84" height for category 6, because a cage that size would not fit through an 84" door frame due to the door jamb or floor material. Several commenters also stated that requiring cages of that height would necessitate the raising of rooms in which the commenters house nonhuman primates. We do not consider this concern to be one that will occur with any frequency, nor to be one that warrants our changing the regulations as proposed. We have determined that Category 6 nonhuman primates require a minimum cage height of 84" for their health and well-being, and the final rule reflects this determination. The height requirements are based on the NIH Guide, which is already followed by many members of the research community. Further, we do not believe that the problem of moving cages through doorways is a significant practical one. Cages can be disassembled and reassembled when necessary.

A number of commenters opposed the proposed requirement that, when more than one nonhuman primate is housed in a primary enclosure, the minimum space provided be the sum of the minimum space requirements that must be provided for each nonhuman primate housed in the enclosure. The commenters stated that such a formula could lead to unworkable housing and care situations, might reduce research conducted to find data to define space requirements or cage enrichments, and would not take into account variables among individual animals and species. We continue to consider the space requirements for group-housed animals to be necessary and workable as proposed. In terms of practical implementation, they are similar to the existing regulations, which require a minimum amount of space for each animal housed in an enclosure. Further, we do not believe they will have a negative effect on research regarding space requirements. With the addition to the regulations of a mechanism for approval of innovative housing, incentive exists to conduct further research on the space requirements of nonhuman primates, and on innovative housing that will meet those needs.

One commenter stated that mothers with infants under 6 months of age should be housed in enclosures that are based on the combined minimum space requirements for the mother and the infants, as determined by weight. We do not consider such a requirement necessary, based on species behavior which typically involves carrying and attention to the infant. We are therefore making no changes based on this comment. One commenter stated that infant primates should be allowed to stay with their mothers until 12 months of age, instead of being weaned unnecessarily at 6 months of age. Another commenter stated that the regulations regarding mothers with infants should refer to "unweaned infants" rather than infants less than 6 months of age, to prevent premature separation from the mother. The regulations as proposed do not require weaning at any particular age. The provisions regarding when infants need additional space is based on both nonhuman primate behavior and the size of the infant. Most nonhuman primates require additional space by 6 months of age, whereas weaning ages may vary greatly.

As we noted in the "Supplementary Information" of this rule under the heading "Effective Dates," many commenters pointed out that certain of the new standards would require affected facilities to make extensive structural changes. The alteration of the minimum space requirements for nonhuman primates is one such change in the standards. Therefore, in §§ 3.80(b)(1) (i) and (ii) of this rule, we are continuing the existing regulations for minimum space requirements for nonhuman primates for the period prior to February 15, 1994. On and after February 15, 1994, facilities must comply with the minimum space requirements for nonhuman primates set forth in § 3.80(b)(2)(i) through § 3.80(b)(2)(iv) of this rule (redesignated from §§ 3.80(b) (1) and (2), and § 3.80(b) (4) and (5), respectively, of the proposed rule).

In our proposal, we stated that we encourage the design and development of primary enclosures that promote the psychological well-being of nonhuman primates by providing them with sufficient space and unrestricted opportunity for movement and exercise, and by allowing them to interact physically and socially with other nonhuman primates. Accordingly, we proposed to allow the use of primary enclosures that do not precisely provide the minimum space otherwise required. Under our proposal, an applicant would be required to demonstrate that the proposed primary enclosure provides sufficient space and is designed so that the nonhuman primates can express species-typical behavior. We proposed that approval of alternative housing at research facilities would be the responsibility of the facility's Committee. The use of such alternative housing by dealers and exhibitors would be dependent upon approval of the Administrator.

A very large number of commenters addressed the provisions regarding innovative housing for nonhuman primates. Most of these commenters supported the provision. These commenters recommended that pole-housing be included as an acceptable method of innovative housing. We continue to consider it appropriate that approval or denial of alternative housing be done on a case-by-case basis, and are making no changes based on these comments. A large number of commenters objected to what they termed a "loophole" that would permit smaller primary enclosures than those otherwise required by the regulations. We consider adequate space to be one of the primary factors in the humane treatment of animals regulated under the Act. The specific space requirements we set forth in the proposal were based on the best current information available to us. However, we believe it would be unrealistic to conclude that the design standards currently in general use cannot be improved upon, based on continuing research in engineering and animal behavior. Establishing a mechanism for approval of innovative enclosures will likely foster such research. It is also important to note that innovative enclosures will not qualify for approval unless they provide the animals with a sufficient volume of space and the opportunity to express species-typical behavior, and that such enclosures will be subject to APHIS inspection.

Environment Enhancement to Promote Psychological Well-Being—Section 3.81

In proposed § 3.81, titled "Environment enhancement to promote psychological well-being," we proposed that dealers, exhibitors, and research facilities be required to develop, document, and follow a plan for environment enhancement adequate to promote the psychological well-being of nonhuman primates. We proposed to require that the plan be in accordance with the currently accepted professional standards as cited in appropriate professional journals or reference guides and as directed by the attending veterinarian. We also proposed to require that the plan be made available to APHIS, and, in the case of research facilities, to officials of any pertinent Federal funding agency. We proposed to require that the plan address certain

specified areas, including: (1) Social grouping; (2) environmental enrichment; (3) special considerations of nonhuman primates requiring special attention; and (4) restraint devices.

A very large number of commenters supported in general the promotion of psychological well-being in nonhuman primates. A number of others requested that "psychological well-being" in nonhuman primates be defined. A number of commenters stated either that the term is undefinable and cannot be measured as an improvement for nonhuman primates, that it is impossible to establish valid standards for the animals' psychological well-being, that the proposed standards might be detrimental to nonhuman primates, that the proposed regulations regarding psychological well-being were excessive, or that the proposed standards were not based on scientific analyses. As we discussed in our proposal, what constitutes psychological well-being in each species and each primate does not lend itself to precise definition. As an agency, however, we are mandated by Congress to establish standards to promote the psychological well-being of nonhuman primates. As we discussed earlier, the information received from the expert committee on primates, consultations with HHS, other experts in primates, and the large number of comments received on the subject, demonstrate that the psychological well-being of nonhuman primates involves a balance of several factors or areas of concern. This concept involves sufficient space for the animals; methods to stimulate the animals and occupy some of their time, both physically and mentally (i.e., environment enrichment); and methods of social interaction with other nonhuman primates or humans.

The promotion of the psychological well-being of nonhuman primates is a critical component in our rewriting of the animal welfare regulations, and is one that we are specifically mandated to address under the Act. Statutorily, we have the responsibility and obligation to establish such provisions as we believe are necessary for a physical environment to promote the animals' psychological well-being, but do not have the authority to interfere with actual research.

One commenter stated that the regulations should not limit resource materials for the development of environment enhancement plans to professional journals and reference guides. The regulations as proposed require adherence to such information sources as a minimum. They do not prohibit the use of other research sources in establishing the required plans.

A large number of commenters urged that the regulations include specific requirements for exercise and social grouping of nonhuman primates, as proposed in our original proposal. We disagree with the commenters that it would be in the best interests of nonhuman primates to impose uniform rigid standards on all facilities. Because of the diverse needs of varying species and individual animals, it might actually prove harmful to establish the same set of specific standards for all animals.

A small number of commenters stated that any release of nonhuman primates for exercise and social interaction should be documented. We do not consider such documentation necessary for enforcement purposes. With the requirement for a written plan, and inspections by Department personnel, we do not expect enforcement problems with the regulations as proposed.

We are making two additions to § 3.81 as proposed to clarify our intent. That section requires that the plan for environment enhancement be made available to APHIS. It was our intent that the plan be made available upon request. We are therefore adding language to § 3.81 as proposed to clarify that intent. Additionally, we are specifying that the required plan for environment enhancement must be an appropriate one.

Social Grouping.

We proposed in § 3.81(a) that the environment enhancement plan include specific provisions to address the social needs of nonhuman primates of species known to exist in social groups in nature. As proposed, such specific provisions must be in accordance with currently accepted professional standards, as cited in appropriate professional journals or reference guides, and as directed by the attending veterinarian.

A number of commenters opposed the proposed provisions regarding the social needs of nonhuman primates. Several commenters said the proposed provisions were vague and should be clarified, or that more specific criteria for meeting social needs should be set forth. Many others offered specific recommendations for addressing the animals' social needs. The proposed provisions regarding the social needs of primates were intentionally written so as to allow some flexibility and professional discretion to individual facilities in meeting the social needs of the animals. Exactly how the animals' social needs are met is of less importance than the fact that they are met.

One commenter stated that requiring that the social needs of nonhuman primates be met exceeds the intent of Congress. We do not agree with the commenter. In general, nonhuman primates are social animals, with the need for socialization constituting a significant component of their psychological makeup. Promotion of the animals' psychological well-being requires that their social needs be addressed.

A small number of commenters stated that caging nonhuman primates for their lifetime has proven to be advantageous both to the animals' care and to their welfare. We disagree that individually housing nonhuman primates, without addressing their psychological and social needs, is adequate to promote their psychological well-being. Such practices will not be in compliance with these regulations.

A number of commenters stated that social housing should not be mandatory, but rather should be one of the possible methods of enriching the animals' environment. Other commenters stated that multiple housing of animals is inappropriate in most cases. One commenter stated that socialization should be based on individual housing that allows for visual and auditory contact among nonhuman primates, rather than group housing. One commenter stated that, under the regulations as proposed, facilities might be precluded from housing only one nonhuman primate. We are making no changes based on these comments. The regulations as proposed do not specifically call for group housing of nonhuman primates. They do, however, require that the social needs of nonhuman primates be addressed. In most cases, we expect group housing to be the most efficient and appropriate method of ensuring that the animals' social needs are met.

Many commenters stated that social grouping would endanger the animals' welfare by increasing noise and fighting. We are making no changes based on these comments. The regulations in proposed § 3.81(a)(3) require that nonhuman primates be compatible before being housed together. A number of other commenters, while supporting in general group housing of nonhuman primates, stated that in certain cases it might be inappropriate and detrimental. We agree that such situations might exist, and consider them to be already addressed in § 3.81(a)(3) as proposed.

A small number of commenters stated that housing primates in groups will

facilitate spread of infectious diseases. We consider the regulations as proposed adequate to prevent the spread of disease among group-housed animals. Section 3.81(a)(2) as proposed requires the isolation of nonhuman primates that have or are suspected of having a contagious disease. Additionally, the cleaning and sanitization requirements elsewhere in the regulations as proposed are designed to minimize disease introduction and spread.

A number of commenters expressed concern that group housing of nonhuman primates would result in increased physical and mental stress and trauma to animal handlers. As we discussed in our proposal, while we agree that housing primates in groups presents some logistical concerns that are not present when animals are housed individually, we believe that such concerns can be addressed by proper training of handlers and appropriate housing configurations.

A small number of commenters stated that meeting the requirements regarding the social needs of nonhuman primates will require facilities to increase their staffs. One commenter expressed concern that providing for group housing for primates will involve significant expense. We do not agree that compliance with the regulations as proposed will necessarily require large staffing increases. In any event, some additional staffing, if necessary, would not be unreasonable in response to the amendments to the Act. Whether additional staffing is needed will depend on how the facility meets the social needs of the nonhuman primates, on the physical configuration of the facility, and on the facility's method of operations. In some cases, housing animals in groups is less labor-intensive than housing them individually.

One commenter asserted that individually housing primates is appropriate in cases where the animal is used in experiments lasting 12 months or less. We are making no changes based on this comment. The Act does not distinguish between animals kept for a short term and those kept long-term, and requires minimum standards for all animals, regardless of the duration involved. The commenter presented no evidence to support the conclusion that individual housing for 12 months or less is not psychologically distressing to nonhuman primates, and we are not aware of scientific data supporting such a conclusion.

A small number of commenters stated that the fact that primates socialize in nature neither indicates nor suggests that they are psychologically harmed by eliminating contact with other nonhuman primates. We disagree. In general, nonhuman primates are social animals by nature. In providing for the psychological well-being of nonhuman primates, such social needs must be taken into account. Other commenters stated that social grouping has not been proven to assure psychological well-being or to prevent development of stereotypical behaviors. We are making no changes based on these comments. No practices or regulations can guarantee the psychological well-being of nonhuman primates in all cases. However, the most compelling evidence available indicates that certain practices, including housing nonhuman primates in groups, can promote psychological well-being. In general, housing in groups promotes psychological well-being more assuredly than does individual housing. On the other hand, individual housing has been demonstrated to give rise to significantly more stereotypical behavior than does group housing.

A small number of commenters recommended that compatible groups of nonhuman primates be required to remain together. Others recommended that primate infants remain with their dam for a minimum number of years, ranging from 2 years to 4 years. A small number of commenters recommended that the regulations allow primate families to be housed together. Others requested that such housing be required. One commenter stated that conspecifics should be housed together whenever possible. While we encourage such practices where possible, and nothing in the regulations as proposed prohibits them, we do not consider them practical in all cases. We are therefore making no changes based on these comments.

A small number of commenters suggested that behavioral scientists or animal psychologists may be more qualified than attending veterinarians to establish environment enhancement plans. Under the regulations as proposed, the attending veterinarian has responsibility for directing the development of the plan. However, nothing in the proposed regulations prohibits consultation with other animal experts. On the contrary, we expect the attending veterinarian to carry out whatever consultation and professional research he or she deems necessary to adequately advise the facility. One commenter stated that at research facilities, the environment enhancement plan should be designed based on consultation with and review by the Committee. As noted, the attending veterinarian may consult as necessary in directing development of the plan. Further, at research facilities, animal care programs are subject to annual review by the Committee.

A large number of commenters stated that group housing could significantly interfere with research where social grouping, or the lack of it, is a factor. Conversely, a very large number of commenters stated that exemptions for research should be allowed only if it can be documented that social housing is interfering with the research. Under § 2.38(k)(1) of part 2 of the regulations, research facilities are required to comply with the standards in part 3, except in cases where exceptions are specified and justified in the research proposal to conduct the specific activity and are approved by the facility's Committee. This provision exists to safeguard approved research.

In order to make clear situations where group housing would not be appropriate, we proposed to specify in §§ 3.81 (a)(1), (a)(2), and (a)(3) that the environment enhancement plan may provide that: (1) A nonhuman primate that exhibits vicious or overly aggressive behavior, or is debilitated because of age or other conditions should be housed separately; (2) a nonhuman primate or group of nonhuman primates that has or is suspected of having a contagious disease must be isolated from healthy animals in the colony as directed by the attending veterinarian; and (3) nonhuman primates may not be housed with other species of nonhuman primates or animals unless they are compatible, do not prevent access to food, water, and shelter by individual animals, and are not known to be hazardous to the health and well-being of each other. We also proposed that compatibility of nonhuman primates must be determined in accordance with generally accepted professional practices and actual observations, as directed by the attending veterinarian, to ensure that the animals are compatible. Additionally, we proposed that individually housed nonhuman primates must be able to see and hear nonhuman primates of their own or compatible species, unless the attending veterinarian determines that it would endanger their health, safety, or well-being. A small number of commenters expressed opposition to all individual housing of nonhuman primates. We consider it obvious that situations will arise where housing in groups is self-evidently more harmful than helpful, and are making no changes based on the comments.

A small number of commenters stated that the specific provisions described in the preceding paragraph should be

deleted, because, according to the commenters, they all fall under the category of currently accepted professional standards. We consider the provisions in question minimum standards applicable in all situations. We are therefore making no changes based on the comments.

Environmental Enrichment

In proposed § 3.81(b), we proposed to require that the plan discussed above include provisions for enriching the physical environment in primary enclosures by providing means of expressing noninjurious species-typical activities, and to provide that species differences should be considered when determining the type or methods of enrichment. We provided in the proposal that examples of environmental enrichments include providing perches, swings, mirrors, and other increased cage complexities; providing objects to manipulate; varied food items; using foraging or task-oriented feeding methods; and providing interaction with the care giver or other familiar and knowledgeable person consistent with personnel safety precautions.

Many commenters stated that the regulations should list all of the specific areas that must be addressed in an environmental enrichment plan. Some commenters expressed concern that the lack of a guide in choosing environment enrichments could result in prolonged experimentation at the expense of the primates' health and research funds. A number of commenters submitted specific practices that they believed should be included in achieving environmental enrichment. One commenter recommended that the Department set forth an exhaustive list of unacceptable practices. The provisions in § 3.81 of the proposal set forth broad standards that must be met to ensure the psychological well-being of nonhuman primates. Section 3.81(b) is more specific, requiring enrichment of the physical environment by providing means of expressing species-typical activities. Examples of such enrichment are provided. Beyond this, however, we do not consider it appropriate to attempt to set forth an exhaustive list of methods of achieving environmental enrichment. Because of the many variables affecting how best to enrich the environment for species and animals that have different needs and that are held under differing conditions, such a listing would be unnecessarily restrictive, and would not allow for advances in animal behavioral research. Nor do we consider it possible or necessary to set forth a comprehensive list of unacceptable practices. Practices will be considered unacceptable if they do not promote compliance with the standards in § 3.81 as proposed.

Several commenters recommended that a panel of experts in primatology should be formed to develop standardized plans for environmental enrichment of nonhuman primates. For the reasons set forth in the preceding paragraph, we do not consider it appropriate to attempt to set forth a comprehensive listing of specific standards for environmental enrichment. A committee of the nature described by the commenters was convened prior to the initiation of this rulemaking process. We have drawn on the recommendations of that committee in developing this rulemaking.

One commenter stated that the regulations should list what species-typical behaviors are required, because all behaviors are not possible in a cage. We do not consider such a change practical or necessary, and expect common sense, along with professional judgment, to assist in determining what behaviors can and should be promoted in caged animals.

One commenter stated that professional standards for environmental enrichment do not exist. We disagree. While we welcome additional research with regard to environmental enrichment, sufficient professional consensus already exists to make plans for such enrichment appropriate. A small number of commenters stated that there is no definable species-typical behavior in captive nonhuman primates. We disagree. Species-typical behavior has been defined in both wild and captive populations, and sufficient data exists to meet the standards as proposed.

Special Considerations

In § 3.81(c) of the proposal, we proposed that certain categories of nonhuman primates must receive special attention regarding enhancement of their environment. We proposed to require facilities to provide for the special psychological needs of (1) infants and young juveniles, (2) those that show signs of being in psychological distress through behavior or appearance, (3) those used in research for which the Committee-approved protocol requires restricted activity, (4) individually housed nonhuman primates that are unable to see and hear nonhuman primates of their own or compatible species, and (5) great apes weighing over 110 lbs. (50 kg).

As proposed, this special attention would be based on the needs of the individual species and in accordance with the instructions of the attending veterinarian. Some examples of special attention would be special feeding plans for juveniles, and increased one-on-one care for animals showing psychological distress.

A small number of commenters requested that additional criteria be provided as to what constitutes special attention. We are making no changes based on these comments. The form this special attention must take will depend to a great extent upon what form of environment enhancement is afforded all of the nonhuman primates in a facility under the required plan. Rather than restrict forms of special attention to a finite list, we consider it appropriate as proposed to base the special attention on the needs of the individual species, in accordance with the instructions of the attending veterinarian.

Several commenters stated that, at research facilities, the Committee and not the attending veterinarian should determine what special attention is necessary. We consider it appropriate in general to give responsibility for determining appropriate special attention to the attending veterinarian. However, the regulations do not prohibit consultation with the Committee.

A number of commenters addressed the requirement for special attention for nonhuman primates that show signs of being in psychological distress through behavior or appearance. A small number of commenters recommended that the term "psychological distress" be changed to "psychological pathology," because, according to the commenters, psychological distress can be of a transient or insignificant nature. We consider the term "psychological distress" to better convey our intent that facilities remedy even transient psychological disturbances than does the change recommended by the commenters, and are making no changes based on these comments. A small number of commenters stated that if a nonhuman primate exhibits stereotypical movements, such as hair pulling or similar signs of psychological distress, consultation with outside experts should occur. Under the regulations, a facility is required to provide adequate veterinary care to its animals. In certain cases, the attending veterinarian may consider it necessary to conduct outside consultation in administering such care. However, we do not consider it necessary or practical to include in the regulations a compendium of what constitutes adequate veterinary care. One commenter requested that the

regulations include a definition of "psychological distress." We consider the provision in question to be clear as written. Any behavior or appearance that would indicate abnormal stress must be addressed.

One commenter requested that the regulations include examples of restricted activity in research situations that would require special attention. We are making no changes based on this comment. The nature of restricted activity deemed necessary under a research protocol is subject to approval by the Committee. We do not consider it appropriate to attempt to enumerate in the regulations examples of restrictions that are the responsibility of the Committee.

Several commenters recommended that the provisions in § 3.81(c)(5) as proposed be broadened to require special attention for great apes other than those weighing over 110 lbs. (50 kg). We are making no changes based on these comments. The special attention to be provided great apes over 110 lbs. is related to their need for additional space over that required for other great apes in § 3.80. For this reason, we do not consider it necessary to require special attention for the smaller great apes.

Restraint Devices

We also proposed that the plan to be developed by the facility include provisions addressing restraint devices. We proposed that nonhuman primates must not be maintained in restraint devices unless required for health reasons as determined by the attending veterinarian, or by a research proposal approved by the Committee at research facilities. As proposed, maintenance under such restraint would be limited to the shortest period possible. We proposed that, in instances where long-term (more than 12 hours) restraint is required, the nonhuman primate must be provided the opportunity daily for unrestrained activity for at least one continuous hour during the period of restraint, unless continuous restraint is required by the research proposal approved by the Committee at research facilities.

A small number of commenters supported the proposed provisions regarding restraint devices as written. A small number of commenters stated that the proposed exercise period for restrained nonhuman primates is insufficient. Upon review of the comments, we continue to consider release for one continuous hour during the period of restraint adequate to promote the animal's well-being, and are making no changes based on these comments.

A small number of other commenters recommended that it be required that restrained nonhuman primates receive social contact with a conspecific primate during the exercise period, and that all animals placed in restraint devices with the approval of the facility's Committee be inspected by the Committee prior to the Committee's granting approval for use of the restraint device. We are making no changes based on these comments. The special needs of restrained animals are already addressed in § 3.81(c)(3) as proposed. Further, the restraint of animals must be reviewed by the Committee at least twice annually, in accordance with part 2 of the regulations. Similarly, the recommendation of the commenter who suggested that the Committee be required to investigate alternatives before approving research protocols is already addressed in § 2.31(d)(1)(ii) of part 2 of the regulations.

A small number of commenters expressed concern that requirements for the exercise of restrained animals would interfere with research protocols. Some of these commenters recommended that requirements for restrained animals be left to the Committee. We disagree that the provisions as proposed regarding restrained animals would interfere with research. Under § 2.38(k)(1) of part 2 of the regulations, exceptions to the standards in part 3 may be made when such exceptions are specified and justified in the proposal to conduct an activity and are approved by the Committee. For this reason, we are not adopting the recommendation of the commenter who stated that continuous restraint for more than 12 hours should be prohibited in all cases.

A small number of commenters requested that the regulations differentiate between restriction of movement and restraint. We are making no changes based on these comments. The regulations as proposed clearly pertain to maintenance in restraint devices. We consider the reference adequate to convey our intent as written.

Exemptions—Section 3.81(e)

In § 3.81(e)(1) of the proposal, we proposed that the attending veterinarian may exempt individual nonhuman primates from participation in environment enhancement plans because of their health or condition, or in consideration of their well-being, and must document the basis of such exemptions for each nonhuman primate. The basis of the exemption would have to be recorded by the attending veterinarian for each nonhuman primate. Unless the basis for an exemption is a permanent condition, it would be required that the attending veterinarian review the exemption at least every 30 days.

We proposed in § 3.81(e)(2) of the proposal that the research facility's Committee may exempt individual nonhuman primates from some or all of the environment enhancement plans, for scientific reasons set forth in the research proposal. We proposed to require that the basis of such exemption be documented in the approved proposal and be reviewed at appropriate intervals as determined by the Committee, but not less than annually.

We additionally proposed to require that records of any exemptions be maintained by the dealer, exhibitor, or research facility and be made available to USDA officials or officials of any pertinent funding Federal agency upon request.

A small number of commenters expressed opposition to what they termed "loopholes" in the regulations, which they stated would allow researchers to house animals in isolation merely by claiming necessity. As discussed above, we do not have the authority to interfere with approved research, and are making no changes based on these comments. Several commenters opposed exemptions of any sort. Permitting exemptions based on approved research protocols is consistent with the provisions of the Act that we not interfere with the design, outlines, or guidelines of actual research. It may be necessary to the health and well-being of the animals to allow for exemptions for medical reasons. We are therefore making no changes based on these comments.

A number of commenters stated that the provisions for exemptions will require excessive paperwork, will be costly, and will subject the attending veterinarian's opinion to unqualified review. Throughout these regulations, we have attempted to minimize recordkeeping requirements. However, we continue to consider it necessary in facilitating inspection and enforcement that exemptions from the environment enhancement plan granted by the attending veterinarian be documented and be subject to review by the Department. We do not agree that it is necessary, however, as one commenter recommended, that documentation of exemptions be provided to the Department. Under the proposed regulations, these records must be made available to APHIS upon request. We consider that provision adequate to ensure proper inspection and enforcement.

A small number of commenters stated that exemptions should be reviewed by the attending veterinarian "as needed," rather than every 30 days as proposed. We are making no changes based on these comments. Because of the importance accorded the promotion of the psychological well-being of nonhuman primates under the Act, and because medical conditions in many cases change frequently, we consider it necessary and appropriate to ensure that exemptions to the environment enhancement plan be reviewed on a regular basis, to ensure that the exemptions are not in effect any longer than is necessary.

A small number of commenters stated that the facility should designate the individual most qualified to grant exemptions, because the attending veterinarian may not be the most qualified individual available with regard to animal behavior, and seldom has contact with nondiseased primates. A small number of commenters stated that the Committee, and not the attending veterinarian, should have final authority at research facilities with regard to exemptions. We are making no changes based on these comments. The exemptions granted by the attending veterinarian will be for medical reasons, which he or she is qualified through training to assess.

Several commenters stated that the attending veterinarian should be permitted to exempt either individual nonhuman primates or groups of nonhuman primates from participation in the environment enhancement plan, and that exemptions for permanent conditions, including old age, should not need to be reviewed every 30 days. We do not agree. To ensure each nonhuman primate's participation in the environment enhancement plan to the fullest extent possible, exemptions need to be made on an individual basis, according to the health, condition, and well-being of the animal. No blanket exemptions for groups or conditions are acceptable.

Several commenters recommended that it be required that exemptions made by the Committee be reviewed every 30 days. We do not agree with the commenters' recommendation. Exemptions made by the Committee will be made for reasons relating to an approved research protocol. Such exemptions are not subject to as rapid change as exemptions for medical reasons, and do not need to be reviewed as often as those for medical reasons.

Feeding—Section 3.82

In § 3.82(a) of our proposal, we proposed minor changes to existing § 3.79 to require that the amount of food, type of food, and frequency of feeding be appropriate for the species, size, age, and condition of the nonhuman primate, and for the conditions in which the nonhuman primate is maintained, and be in accordance with generally accepted professional and husbandry practices and nutritional standards. We also proposed in § 3.82(a) that the food must be clean, wholesome, and palatable.

One commenter supported the provisions of proposed § 3.82 as written. Another commenter stated that, in group housing, there is no way to ensure that food will remain clean, uncontaminated, wholesome, and palatable. We are making no changes to our proposal based on this comment. As we stated in our proposal, while we agree that the food may not always remain clean after it is offered to the nonhuman primates, it is possible and necessary to make sure that the food is in appropriate condition at the time it is offered.

A small number of commenters stated that each nonhuman primate should be fed a varied diet, with at least three different feed types offered at each feeding. These commenters also stated that monkey chow with outdated expiration dates should not be fed to nonhuman primates. Other commenters stated that a varied diet should be required, with chow forming no more than 50 percent of a laboratory nonhuman primate's diet. One commenter recommended that varying feeding methods be required. We agree that food should not be offered when its quality has deteriorated. This concern is already addressed under the regulations as proposed, which requires that food be palatable to the animals and of sufficient nutritive value to maintain a healthful condition and weight range for the animal, and to meet its normal daily nutritional requirements. However, as we discussed in our proposal, whether a particular animal or species of nonhuman primate would benefit from a varied diet or varying feeding methods is a decision that can best be made by the attending veterinarian. Therefore, we are retaining the provisions in § 3.81(b) as proposed that include "varied food items" and "foraging and task-oriented feeding methods" as examples of environmental enrichment.

One commenter recommended that primates should be provided with natural, unprocessed fruits to aid clinicians in judging the well-being of the animals, based on their consumption of these items. We do not consider the consumption of any particular food to be a reliable indicator of an animal's well-being and are making no changes based on this comment.

We proposed in § 3.82(b) that nonhuman primates must be fed at least once each day, except as otherwise might be required to provide adequate veterinary care, with infants and juveniles required to be fed as often as necessary in accordance with generally accepted professional and husbandry practices and nutritional standards. Several commenters specifically supported these provisions as written. One commenter recommended that the regulations require that primates be fed at least twice daily. Based on our experience enforcing the regulations, we continue to consider once daily feeding to be adequate for nonhuman primates, and are making no changes based on the comment.

We proposed to require in proposed § 3.82(c) that multiple feeding sites be made available if members of dominant nonhuman primate or other species are fed together with other nonhuman primates. A number of commenters specifically supported proposed § 3.82(c) as written. A number of commenters opposed the provisions regarding multiple feeding sites, stating that, due to dominance behavior, multiple feeding sites would not ensure that all animals will get food. We are making no changes based on these comments. Whatever practical problems have to be met to provide each nonhuman primate access to food each day, they cannot justify ignoring the feeding needs of the animals housed at a facility.

Several commenters stated that multiple feeding sites should be required only if individuals are unable to feed due to social dominance relationships. As worded in the proposal, § 3.82(c) bases the need for multiple feeding sites on the presence of dominant animals. Such a premise implies that dominant animals will hinder other animals from adequate access to food. We therefore consider the commenters' recommendation to be addressed adequately by the regulations as proposed.

Section 3.82(c) as proposed also requires observation of the feeding practices of the animals to determine that each receives a sufficient amount of food. One commenter stated that observation at each feeding might be impractical; that it is sufficient to observe every third day and regroup the animals with compatible peers if necessary. As worded, the regulations require only that observation be carried out to ensure that all animals receive sufficient food. No specific frequency of observation is provided for. One

commenter objected to the requirement for observation, and suggested instead that excess food be offered to ensure that all animals have enough to eat. We do not agree with the commenter. Excess food may be detrimental to the health and well-being of the animals, and may create pest problems.

A number of commenters suggested that methods other than observation be used to determine whether nonhuman primates are being fed enough. The methods recommended by the commenters included monitoring the animals' weight and coat condition. The regulations as proposed already require that the food fed to nonhuman primates must be of a sufficient quantity and have sufficient nutritive value to maintain a healthy condition and weight range of the animal. Although these are valid parameters, they are not affected exclusively by the amount of food eaten. The only way to be certain that all animals receive a sufficient quantity of food is by direct observation.

We proposed to continue to require sanitization of food containers at least once every two weeks and also proposed to require that food containers be sanitized whenever used to provide food to a different nonhuman primate or social grouping of nonhuman primates. We specified that approved methods of sanitization would be those methods provided in proposed § 3.84(b) for sanitization of primary enclosures. Several commenters specifically supported these provisions as written. One commenter stated that it may be impossible to keep food dry in outdoor facilities. We disagree. Feeders can be constructed so as to keep food dry and protected from the weather. We are therefore making no changes based on this comment.

Watering—Section 3.83

In proposed § 3.83, we proposed minor changes to existing § 3.80 to require that sufficient potable water be provided to the nonhuman primates. We proposed to retain the requirement that if water is not available to the nonhuman primates at all times, it must be offered to them at least twice a day, and we proposed to add a requirement that the water be offered for at least 1 hour each time it is offered. Under our proposal, the attending veterinarian could vary these requirements whenever necessary to provide adequate veterinary care to the nonhuman primates. We proposed to continue to require sanitization of water containers at least once every 2 weeks and also to require sanitization when used to provide water to a different nonhuman primate or social grouping of nonhuman primates. We specified that approved methods of sanitization would be those methods provided in proposed § 3.84(b)(3) for sanitization of primary enclosures.

A small number of commenters specifically supported proposed § 3.83 as written. A number of commenters recommended that we require that potable water be provided continuously under all circumstances, or that at least 4 hours pass between the twice daily watering, to account for species differences. Other commenters stated that the proposed requirements regarding how often nonhuman primates must be offered water were too rigid, and that a schedule for watering should be established according to professional discretion. Based on our experience enforcing the regulations, we believe that it is necessary for the well-being of nonhuman primates to offer them water at least twice daily. Upon review of the comments, however, we agree that greater emphasis needs to be placed on the needs of individual animals and species. We are therefore providing in this final rule that if potable water is not continually available to nonhuman primates, it must be offered as often as necessary to ensure their health and well-being, but not less than twice daily for at least 1 hour each time, unless otherwise restricted by the attending veterinarian, or as required by the research proposal approved by the Committee at research facilities.

Cleaning, Sanitization, Housekeeping, and Pest Control—Section 3.84

In our proposed revisions to existing § 3.81, we included the requirement that excreta and food waste be removed from primary enclosures daily, and from underneath them as often as necessary to prevent an excessive accumulation of feces and food waste, to prevent the nonhuman primates from becoming soiled, and to reduce disease hazards, insects, pests, and odors. We proposed to require that fixtures inside primary enclosures, such as bars and shelves, must be kept clean and be replaced when worn. We also proposed that dirt floors, floors with absorbent bedding, and planted areas in primary enclosures must be spot-cleaned with sufficient frequency to ensure all animals the freedom to avoid contact with excreta, or as often as necessary to reduce disease hazards, insects, pests, and odors. We proposed to require that if the nonhuman primates engage in scent marking, hard surfaces in the primary enclosures must be spot-cleaned daily.

A small number of commenters supported the provisions in proposed § 3.84 as written. A small number of commenters stated that the regulations should require that excreta and food waste be removed from primary enclosures only as often as necessary, rather than daily as proposed. We are making no changes based on these comments. We cannot envision many situations where daily cleaning of the inside of a primary enclosure would not be necessary, and therefore do not consider it appropriate to allow for departures from that frequency.

One commenter stated that spot-cleaning of hard surfaces in primary enclosures housing scent-marking species should be required to be done at regular intervals according to professional discretion, rather than daily as proposed. We disagree. By spot-cleaning, the environment of the scent-marking species will not be unduly disrupted, and we continue to consider daily spot-cleaning necessary to protect the health and well-being of the animals.

We also proposed that when using water to clean the primary enclosure, a stream of water must not be directed at a nonhuman primate. Additionally, when steam is used to clean the primary enclosures, nonhuman primates would have to be removed or adequately protected to prevent them from being injured. We proposed to require that indoor primary enclosures be sanitized once every two weeks, and included language to make clear that used primary enclosures would have to be sanitized before being used to house either another nonhuman primate or group of nonhuman primates.

A very large number of commenters stated that the regulations should require that nonhuman primates be removed from primary enclosures before those enclosures are cleaned, particularly by steam. We recognize clearly the potential dangers to animals that are not properly protected when steam cleaning is taking place. It was our intent in wording the proposal as we did to make it clear that animals must be removed from their primary enclosures during steam cleaning, unless they are otherwise adequately protected. However, upon review of the comments regarding this provision, we consider it appropriate to reword that provision to clarify our intent further. Additionally, we consider it appropriate to reword the requirement regarding the wetting of animals during cleaning, again to clarify our intent. Therefore, in this final rule, we are providing in § 3.84(a) that when steam or water is used to clean the primary enclosure, whether by hosing, flushing, or other methods, nonhuman primates must be removed, unless the enclosure is large enough to ensure that the animals would

not be harmed, wetted, or distressed in the process. In prohibiting the wetting of animals, our intent is to prohibit the direct wetting of animals during the cleaning process. We do not consider it deleterious to the animals, for example, to have their feet wetted by water resulting from cleaning.

One commenter stated that many facilities use transfer cages, and expressed concern that the proposed regulations will make it necessary to hold or transfer animals in cages that are of equal size to the home cage, and to sanitize this transfer cage before holding another animal. As proposed, the standards do not prohibit the use of transfer cages if they comply with the transport enclosure requirements in § 3.87(e) as proposed. The intent of the sanitization requirements as proposed is to prohibit the use of soiled cages and to limit the transmission of disease agents between animals from different rooms or groups. Under the regulations as proposed, an enclosure could be used successively for animals of the same group, unless it becomes soiled.

A number of commenters recommended that perches, bars, and shelves should be replaced when excessively worn or soiled. We are making no changes based on this comment. The regulations as proposed already require that these fixtures be replaced when worn. We consider it excessive and unnecessary, however, to require their replacement when they are soiled.

In proposed § 3.84(b)(3), we included specific acceptable means of sanitization, that are the same as those in the existing regulations, with one addition. We proposed to allow also the use of detergent/disinfectant products that accomplish the same purpose as the detergent/disinfectant procedures specified in the existing regulations.

Several commenters stated that a daily disturbance for cleaning would harm the psychological well-being of the nonhuman primates. We do not believe that the simple daily removal of excreta and food waste would be significantly stressful to nonhuman primates, and believe it is necessary for the physical well-being of the animals.

One commenter, addressing our proposed requirement that used primary enclosures be sanitized before being used to house another nonhuman primate, stated that large outdoor natural primate habitats cannot be sanitized when animal groups are changed. We are making no changes to our proposal based on these comments. In our proposal, we specified that primary enclosures that could not be sanitized using traditional means, must be sanitized by removing contaminated material as necessary to prevent odors, diseases, pests, insects, and vermin infestation. We consider such a requirement reasonable, practicable, and necessary. Further, based on our experience enforcing the regulations, we do not anticipate that, in the types of enclosures referred to by the commenters, entire groups of animals are changed so frequently as to make the proposed regulation unnecessarily burdensome.

Several commenters recommended that the proposed regulations allow an alternate sanitization schedule, so that a scent-marked surface remains at all times. We are making no changes to our proposal based on these comments. The needs of scent-marking species are already addressed in § 3.84(b)(2) as proposed.

Section 3.84(d) as proposed required that the facility must establish and maintain an effective program for control of insects, external parasites affecting nonhuman primates, and birds and mammals that are pests. A number of commenters stated that the control of bird populations around outdoor enclosures is unnecessary because birds pose a low disease risk. We are making no changes based on this comment. The regulations as proposed do not require control of bird populations unless they are pests. If there are sufficient numbers of birds to affect the health and well-being of primates, due to possible disease transmission, it is necessary that the bird population be controlled.

Employees—Section 3.85

Existing § 3.82 requires that there be a sufficient number of employees to maintain the prescribed level of husbandry practices required by subpart D, and that the rendering of husbandry practices be under the supervision of an animal caretaker with a background in animal husbandry or care. We proposed minor revisions to this section in proposed § 3.85 to make clear that this requirement would be imposed upon every person subject to the regulations, and that the burden of making certain that the supervisor is appropriately qualified would be on the employer regulated under the Act. We also proposed to remove the requirement that the supervisor be an animal caretaker.

One commenter specifically supported the provisions of proposed § 3.85 as written. A number of commenters objected to proposed § 3.85, stating that inspectors and government administrators are not qualified to tell facilities that they do not have enough employees. One commenter stated that such a determination should be left to the attending veterinarian. We are making no changes based on these comments. As we discussed in our proposal, whether a facility has enough employees would be determined on a case-by-case basis. We believe that such a determination can be made based on an evaluation of the successful performance of common husbandry and caretaking practices and on our expert judgment of whether the regulations are being complied with.

A small number of commenters suggested either that employee evaluation standards need further clarification, or that the regulations should require that the supervisor be sympathetic toward the well-being of nonhuman primates. We are making no changes based on these comments. We consider the standards as proposed applicable to all facilities as proposed, and disagree that they would benefit from further specificity. We do not consider it either enforceable or necessary to determine the emotional attitude of employees, as long as they perform according to the regulatory standards.

One commenter stated that § 3.85 as proposed should be reworded to state that the employer is responsible only for the training of the employees, and not for their performance. Such a change would not convey our intent, which is to ensure compliance with the regulations by holding the facility responsible for both the training and performance of its employees. We are therefore making no changes based on this comment.

Transportation Standards

In preparing our proposal to amend the transportation standards we consulted the "Interagency Primate Steering Committee Guidelines" developed by the United States National Institutes of Health-sponsored Interagency Primate Steering Committee. The Interagency Primate Steering Committee is composed of an interagency group of scientists concerned with the care and handling of nonhuman primates. The introduction to the Guidelines states the following:

> Shipment of nonhuman primates by a carrier from one location to another is stressful, even under the best of conditions. The purpose of these guidelines is to minimize the effects of transportation stress on these animals and to have them arrive at their destination in as good a physical condition as possible, with a minimal degree of illness or mortality. Secondly, the guidelines are intended to serve as a reference for adequate care of nonhuman primates for all persons involved with the shipping of these animals.

We also considered the transportation standards proposed by the U.S. Department of Interior, Fish and Wildlife Service (USFWS) for nonhuman primates imported from abroad.

Based upon our experience enforcing the existing regulations, and our consideration of the information available to us, we proposed revisions to the transportation standards in order to safeguard the health, safety, and psychological well-being of nonhuman primates transported in commerce.

As part of our revision, we proposed to include requirements that were previously part of the regulations but were inadvertently omitted from the 1977 revision of the regulations. When the transportation standards were rewritten in 1977 to incorporate the 1976 amendments to the Act concerning the commercial transportation of animals, the existing standards for surface transportation were not included in the regulations. Since that time, the standards have pertained to the commercial transportation by common carrier and only a few paragraphs have pertained to surface transportation by private vehicle. The regulations we proposed to reinstate specifically affect provisions concerning ambient temperature during surface transportation in order to effect improved traveling conditions for nonhuman primates. As proposed, they also impose similar requirements on all persons subject to the regulations engaged in the transportation of nonhuman primates in order to afford the animals necessary protection whenever they are transported in commerce.

One commenter recommended that "in-house" transport should comply with the regulations. Under the regulations as proposed, in-house transport is not excluded from the standards, and therefore must comply with the regulations.

Consignments to Carriers and Intermediate Handlers for Transportation—Section 3.86

In proposed § 3.86, we proposed to expand the existing obligations imposed upon carriers and intermediate handlers (defined in part 1 of the regulations), to ensure the well-being of nonhuman primates during transport in commerce. Our proposal required that certain prerequisites be satisfied before carriers and intermediate handlers could accept nonhuman primates for transport in commerce. Additionally, the proposed regulations included certain duties of the carriers and intermediate handlers following arrival of the shipment at its destination. Various obligations are presently contained in existing §§ 3.85 and 3.88. We proposed to consolidate them in one section, proposed § 3.86, and to add some additional ones that we considered necessary for the nonhuman primates' welfare. Several commenters opposed in general the provisions of § 3.86 as proposed.

Among the existing regulations retained in proposed § 3.86(a) was the provision that carriers and intermediate handlers not accept a live nonhuman primate for shipment from any person subject to the regulations more than 4 hours before the scheduled departure time of the primary conveyance in which the animal will be shipped, except that this time may be extended by agreement to 6 hours if specific prior scheduling of the shipment has been made. Several commenters opposed the option of extending the time before departure to 6 hours. We have observed no problems regarding the well-being of nonhuman primates because of this existing provision, and are therefore making no changes based on this comment.

Existing § 3.85(b) requires that carriers or intermediate handlers accept a nonhuman primate for shipment only if it is in a primary enclosure meeting the requirements of existing § 3.85, "Primary enclosures used to transport live nonhuman primates," except that they may accept a nonhuman primate if it is consigned by a person subject to the regulations who provides a certificate stating that the primary enclosure conforms with § 3.85, unless the enclosure is obviously defective. A small number of commenters addressed these provisions, which were contained in § 3.86(e) of the proposal, stating that they were redundant, because final responsibility for determining the suitability of primary enclosures will rest on the carrier and intermediate handler in any case. Upon review of these comments, we agree that § 3.86(e) as proposed contains redundant provisions. We are therefore amending it in this final rule to make the carrier or intermediate handler solely responsible for determining whether to accept a primary enclosure for transportation.

Existing § 3.85(c) states that carriers and intermediate handlers whose facilities do not meet the minimum temperature requirements provided in the regulations may accept a nonhuman primate for transport if the consignor furnishes a certificate executed by a veterinarian, within 10 days before delivery of the animal for transport, stating that the nonhuman primate is acclimated to air temperatures lower than those prescribed in existing §§ 3.90 and 3.91. These provisions were included in § 3.86(f) of the proposal, where we proposed to clarify the certification regarding acclimation of a nonhuman primate to temperatures lower than those prescribed in the regulations. We proposed to require that the certification of acclimation be signed by a veterinarian, that it specify a minimum temperature that the nonhuman primate can safely be exposed to, that it specify each of the animals contained in the primary enclosure to which the certification is attached, rather than referring to the shipment of animals as a whole. We included the contents of the certification in paragraph (f) of proposed § 3.86, respectively. We proposed to clarify existing § 3.85(c) by requiring that the temperatures to which a nonhuman primate is exposed must not be lower than the minimum temperature specified by the veterinarian and must be reasonably within the generally and professionally accepted range for the nonhuman primate as determined by the veterinarian, considering its age, condition, and species of the animal, even if it is acclimated to temperatures lower than those prescribed in the regulations. The information required to be in the certificate is likewise stated in the regulations.

Existing § 3.88 requires the following: (1) Section 3.88(a) requires that nonhuman primates be offered potable water within the 4 hours preceding transport in commerce. Dealers, exhibitors, and research facilities are required to provide water to nonhuman primates transported in their own primary conveyance at least every 12 hours after transportation is begun and carriers and intermediate handlers are required to do so at least every 12 hours after they accept the animal for transport. (2) Section 3.88(b) provides requirements concerning the frequency of feeding nonhuman primates and similarly distinguishes between those persons transporting nonhuman primates in their own primary conveyances, and carriers and intermediate handlers. (3) Section 3.88(c) requires any dealer, research facility, exhibitor, or operator of an auction sale consigning nonhuman primates for transport to affix written instructions concerning the animals' food and water requirements on the outside of the primary enclosure used for transporting the nonhuman primate. (4) Section 3.88(d) states that no carrier or intermediate handler shall accept a nonhuman primate for transport in commerce unless written instructions concerning food and water requirements

are affixed to the outside of its primary enclosure.

In proposed § 3.86(c), we proposed to include the requirements of existing § 3.88 by requiring that written instructions concerning the food and water requirements for each nonhuman primate in the shipment be securely attached to the outside of the primary enclosure before a carrier or intermediate handler may accept it for transport.

As stated above, existing § 3.88(a) provides that nonhuman primates must be provided water at least every 12 hours after acceptance by carriers and intermediate handlers for transportation. Existing § 3.88(b) provides that nonhuman primates more than 1 year of age be offered food at least once every 24 hours after acceptance by carriers and intermediate handlers for transportation and that nonhuman primates less than 1 year of age be offered food at least once every 12 hours after acceptance for transportation. We proposed to add a certification requirement in proposed § 3.86(d) that would state that each nonhuman primate in a primary enclosure delivered for transport was last offered food during the 12 hours before delivery to a carrier or intermediate handler and was last offered water during the 4 hours before delivery to a carrier or intermediate handler. As proposed, it would also have to include the date and time each nonhuman primate in the primary enclosure was last offered food and water. We proposed that carriers and intermediate handlers not be allowed to accept nonhuman primates for transport unless this certification accompanies the animal, is signed and dated by the consignor, and includes the date and time it was executed. We proposed that this certification, as well as the others required in proposed § 3.86, would also have to specify the species of nonhuman primate contained in the primary enclosure.

In subpart A of this final rule, in response to comments, we are making certain changes to the requirements for feeding and watering prior to transport that we also consider warranted in subpart D. We agreed with commenters addressing the issue that keeping track of a wide variety of feeding and watering schedules for animals could create practical problems for carriers. To reduce this problem, we are making the same changes in § 3.86 that we made in subpart A, to provide that carriers and intermediate handlers must not accept a nonhuman primate for transportation in commerce, unless the consignor certifies in writing that the nonhuman primate was offered food and water during the 4 hours before delivery to the carrier or intermediate handler. By requiring feeding and watering within 4 hours of delivery for transportation, the regulations will both make more uniform the time frame during which animals will have to be fed and watered in transportation, and minimize the number of animals that need to be offered food and water in transportation. In most cases under the amended regulations, animals being transported will reach their destination before having to be fed and watered again. Additionally, to eliminate the need for the carrier to maintain a log of feeding and watering schedules, we are requiring that on the feeding and watering certification provided by the consignor, which must be securely attached to the outside of the primary enclosure, there be included specific instructions for the next feeding(s) and watering(s) for a 24-hour period. We are also providing that instructions that no food and water be given are not acceptable unless directed by the attending veterinarian.

Several commenters stated that since most institutions restrain primates with ketamine prior to shipping, they may not be able to feed them 12 hours prior to delivery. The commenters' concerns have been addressed by the changes just discussed, which require feeding within the 4 hours before delivery for transportation. Under this amended provision, the animal can be fed after being placed into the transport enclosure.

In this final rule, we are also making certain nonsubstantive formatting changes to improve the clarity of § 3.86 as proposed. We are combining the provisions of proposed §§ 3.86 (c) and (d) into § 3.86(d), and are redesignating subsequent paragraphs in § 3.86 accordingly.

One commenter objected to the need for multiple certification forms under § 3.86 as proposed. In this final rule, we are addressing the commenter's concerns by eliminating the need for two of the three certification forms that could possibly have been needed under the proposal. Because this final rule requires that instructions for feeding and watering be securely attached to the primary enclosure, we are eliminating the need for separate certification to accompany the enclosure. Also, by making the carrier or intermediate handler responsible for determining if a primary enclosure is in adequate condition, we are eliminating the option of the consignor providing certification regarding the condition of the primary enclosure.

Existing § 3.85(d) requires carriers and intermediate handlers to notify the consignee of the animal's arrival at least once every 6 hours following arrival of the nonhuman primate at the animal holding area of a terminal facility, and to record the time, date, and method of attempted and final notification on the shipping document. We proposed to add limitations on how long a nonhuman primate can be held at a terminal facility while waiting to be picked up by the consignee. We proposed to adopt the time limitations provided in part 2, § 2.80, "C.O.D. shipments". Accordingly, we proposed in § 3.86(g) that the consignor must attempt to notify the consignee upon arrival, and at least once every 6 hours for 24 hours after arrival, and then must return the animal to the consignor or to whomever the consignor designates if the consignee cannot be notified. Under our proposal, if the consignee is notified and does not take physical delivery of the nonhuman primate within 48 hours of its arrival, the carrier or intermediate handler must likewise return the animal to the consignor or to whomever the consignor designates.

We proposed to revise existing § 3.85(d) to specifically require that carriers and intermediate handlers continue to maintain nonhuman primates in accordance with generally accepted professional and husbandry practices as long as the animals are in their custody and control and until the animals are delivered to the consignee or returned to the consignor or to whomever the consignor designates. One commenter opposed the requirement as proposed that carriers and intermediate handlers provide for proper care of the nonhuman primate. The commenter expressed concern that this provision might discourage carriers from transporting animals. We are making no changes based on this comment. As long as the animals are in their possession, there is no option but to make the carriers' and intermediate handlers' responsible for the animals' well-being.

In this final rule, we are making three other changes to § 3.86 as proposed that are consistent with changes we are making elsewhere in this final rule in response to comments. First, we are amending § 3.86(f) as proposed, regarding the minimum allowable temperatures at carriers' and intermediate handlers' facilities to make it clear that these requirements apply only to animal holding areas, and not to entire cargo facilities. Second, we are

amending § 3.86(f)(4) as proposed, to provide that certification of acclimation provided by a veterinarian must include a statement that, to the best of his or her knowledge, each of the nonhuman primates contained in the primary enclosure is acclimated to air temperatures lower than 50 °F (10 °C), rather than lower than 45 °F (7.2 °C), as proposed. Finally, we are providing that all attempts to notify the consignor after transport of an animal must be recorded by the carrier or intermediate handler either on the carrier's or intermediate handler's copy of the shipping document or on the copy that accompanies the primary enclosure.

Primary Enclosures Used to Transport Nonhuman Primates—Section 3.87

We proposed to reorganize the provisions of existing § 3.86, regarding primary enclosures used to transport nonhuman primates, and to make nonsubstantive changes to this section for clarity. These provisions appeared in § 3.87 of our proposal. Several commenters opposed in general the provisions of § 3.87 as proposed.

We proposed in § 3.87(d)(1) that each nonhuman primate be transported individually in separate primary enclosures, except that the following social groupings could be maintained during transportation: (1) A mother with her nursing infant, (2) an established male-female couple (unless the female is in estrus) or a family group, and (3) a pair of compatible juveniles that have not reached puberty.

Several commenters stated that we should extend these exceptions to allow any nonhuman primates that are compatible to be transported in the same primary enclosure. As we discussed in the proposal, while we believe that combining two compatible juveniles in one enclosure would pose minimal risk to the nonhuman primates, we believe that combining two adult nonhuman primates, other than a male-female couple, would pose unacceptable risks. Based on our experience enforcing the regulations, we have determined that the stresses of transportation can cause two otherwise compatible nonhuman primates to become aggressive and dangerous to each other. We are therefore making no changes based on these comments.

Several commenters stated that, because nonhuman primates have menstrual cycles, rather than periods of estrus, the statement regarding females in estrus should be deleted. Although the commenters are technically correct we consider the term "estrus" to convey the intent and implications desired, and to adequately describe the prohibition intended.

In proposed § 3.87(e), we proposed that primary enclosures must allow nonhuman primates a specified amount of minimum space, except that certain larger species must be restricted in their movements, in accordance with professionally accepted standards of care, when greater freedom of movement would be dangerous to the animal, its handler, or to other persons. One commenter stated that the regulations should specify the animals exempted from the space requirements and set forth the minimum cage sizes allowed. We do not consider it appropriate to make the change recommended by the commenter. The exemption as proposed is designed to accommodate situations where safety considerations are a factor. Because such situations are by their nature variable, often requiring differing responses, we consider the wording as proposed necessary and adequate as written.

In proposed § 3.87(f), we proposed that primary enclosures must be clearly marked with the words "Wild Animals" or "Live Animals," along with arrows to indicate the correct upright position of the primary enclosure. One commenter stated that labels saying "do not tip" and "this side up" should be used on shipping crates. We consider the regulations as proposed adequate to signal the position the primary enclosure must be handled in, and also that special care needs to be given to the enclosure. We therefore do not consider it necessary to make the change recommended by the commenter.

In § 3.87(g) of our proposal, we proposed that the documents that must accompany the nonhuman primates be held by the operator of the primary conveyance if it is a surface conveyance, or attached to the outside of the primary enclosure. We proposed that if such documents are attached to the primary enclosure, they must be placed in a secure but accessible manner, so that they can be removed and securely returned, and so that they are easily noticed. We also proposed to require that instructions for food and water, and for administration of drugs, medication, and other special care be attached to the primary enclosure. In this final rule, we are amending the wording in § 3.87(g) as proposed to reflect the change we are making in § 3.86, that food and water instructions must be securely attached to the primary enclosure.

Primary Conveyances—Section 3.88

Prescribed ambient temperature limits in primary conveyances used to transport nonhuman primates were part of the standards before the 1977 revisions to the regulations, but were inadvertently omitted from those revisions. In our proposal, we proposed to reinstate them for surface transportation, in order to prevent nonhuman primates from being transported under temperature conditions that would be harmful to their health and physical well-being. The existing regulations prescribe upper and lower ambient temperature limits for nonhuman primates held in terminal facilities and prescribe lower temperature limits for nonhuman primates placed on transporting devices. We believe that it is equally important for the health and well-being of nonhuman primates that these limits be followed while the animals are in transport as well as when they are on either end of their journey. Under the regulations we proposed, all persons subject to the regulations would be required to maintain the temperature inside a primary conveyance between 450 °F (7.2 °C) and 85 °F (30 °C) during surface transportation at all times a nonhuman primate is present. Because it would be impracticable to monitor the ambient air temperature inside the cargo area during air transportation, we proposed to require instead that it be maintained at a level that ensures the health and well-being of the species housed, in accordance with generally accepted professional and husbandry practices, at all times a nonhuman primate is present. We also proposed to add requirements that a primary enclosure be positioned in a primary conveyance in a manner that provides protection from the elements, such as rain, wind, snow, and sun, and that is far enough away from animals that are generally considered to be natural predators or enemies of nonhuman primates so that the nonhuman primates cannot reach, see, or smell them.

One commenter stated that recording thermometers should be required during air transport, to verify that temperature requirements are not violated. We do not consider such a change practical or justifiable in relation to the burden it would create. Such a requirement may require airplanes to carry and maintain such thermometers even on flights where no animal is being transported.

We provided in § 3.88(i) of the proposal that nonhuman primates must not be transported with any material, substance, or device in a manner that

may reasonably be expected to harm the nonhuman primates or cause inhumane conditions. A number of commenters stated that nonhuman primates should be allowed to be shipped with potentially harmful substances, if proper precautions are followed to prevent injury or inhumane conditions. We consider the wording as proposed adequate to convey our intent, and are making no changes based on the comments.

Food and Water Requirements—Section 3.89

We proposed to make nonsubstantive changes to the existing regulations to make it clear that carriers and intermediate handlers must provide food and water to nonhuman primates being transported within a prescribed number of hours from the time the animals were last offered food and water. We proposed to require that consignors subject to the Animal Welfare regulations certify the date and time the nonhuman primate was last offered food and water. Under our proposal, carriers and intermediate handlers would be required to determine the appropriate time for providing food and water based upon the information in the certification. Everyone else transporting a nonhuman primate would be required to provide food and water within a prescribed number of hours after they last offered the animal food and water. We proposed this requirement so that nonhuman primates would not go longer than 24 hours without food or longer than 12 hours without water. Under our proposal, the prescribed number of hours, the same as in the existing regulations, differed based upon the age of the nonhuman primate. We also proposed to require that nonhuman primates must be offered food within 12 hours before being transported in commerce, so that carriers and intermediate handlers would not have to provide food and water immediately upon acceptance. Although, under our proposal, proper food would have to be provided, in accordance with proposed § 3.82, we realize that the necessities of travel may require less variation in the types of food offered and in the method of feeding. Accordingly, we added a footnote in proposed § 3.89 to take the exigencies of travel into account. We proposed to include requirements for design, construction, and placement of food and water containers for the nonhuman primates' safety, comfort, and well-being. As previously discussed, we proposed to incorporate in proposed § 3.86 the requirement that carriers and intermediate handlers not accept nonhuman primates for transport unless written instructions concerning food and water requirements are affixed to the outside of the primary enclosure. In § 3.89, we proposed to require that consignors subject to the Animal Welfare regulations attach securely to the primary enclosure all written instructions concerning the nonhuman primates' food and water requirements during transportation.

Several commenters supported proposed § 3.89 as written. Several commenters stated that the regulations should require that food be offered to animals either every 12 hours, or twice in every 24-hour period. Several commenters recommended that it be required that water be offered a minimum of once every 4 hours during transportation. Based on our experience enforcing the regulations, we do not consider the requirements recommended by the commenters necessary or practical, and are making no changes based on these comments.

A number of commenters stated that providing food high in water content should be allowed in lieu of providing water. We are making no changes based on these comments. It would not be evident in each case how much food would be an adequate substitute for water.

A number of commenters, addressing both the food and water requirements in proposed § 3.89 and the veterinary care requirements in proposed § 3.90, stated that it should be the responsibility of the consignor, and not the carrier, to ensure that animals being transported receive adequate food and water and veterinary care. We do not consider such a recommendation to be practical or in the best interests of the animals. Both food and water and veterinary care needs require a timely response by the carrier, and are necessarily the carrier's responsibility.

We have made several changes to § 3.89 as proposed to reflect the changes we are making in § 3.86, as discussed in this supplementary information under the heading "Consignments to Carriers and Intermediate Handlers for Transport—Section 3.86." We are providing in this final rule that nonhuman primates must be offered food and water within 4 hours of delivery for transport, and are requiring that an explicit schedule for feeding and watering during the next 24-hour period be securely attached to the primary enclosure by the consignor. To eliminate duplicative provisions, we are also combining paragraphs (a) and (b) as proposed, and are redesignating subsequent paragraphs accordingly.

Care in Transit—Section 3.90

We proposed to clarify existing § 3.89 to expressly require compliance with these regulations by any person subject to the regulations who is transporting a nonhuman primate in commerce, regardless of whether the nonhuman primate is consigned for transport.

We proposed to require that during surface transportation, regulated persons must obtain any veterinary care needed for the nonhuman primate at the closest available veterinary facility. We also proposed to require that, during air transportation, carriers or intermediate handlers arrange for any veterinary care that is needed for the nonhuman primate as soon as possible.

We proposed to add an exception to the existing regulations that prohibit the transportation in commerce of a nonhuman primate in obvious physical distress, in order to allow transport for the purpose of providing veterinary care for the condition.

When nonhuman primates are initially removed from their primary enclosures after travel they may be unusually active or perhaps agitated. In order to avoid any resultant injury to the animals, we proposed a requirement that would allow only authorized and experienced persons to remove nonhuman primates from their primary enclosures during transport, except that other individuals would be permitted to remove the nonhuman primates if required for the health or well-being of the animals. We proposed to provide that the transportation regulations must be complied with until a consignee takes physical delivery of the nonhuman primate if it is consigned for transportation, or until the animal is returned to the consignor.

A small number of commenters specifically supported the provisions of proposed § 3.90 as written. One commenter stated that the regulations should require that, when necessary, veterinary care be provided "as soon as possible," not at the closest available facility as proposed, because not all clinics have facilities for appropriate veterinary care. We are making no changes based on this comment. By using the term "closest available," we consider the language as proposed to adequately state our intent and to address the concerns of the commenter.

Terminal Facilities—Section 3.91

Existing § 3.90 imposes duties on carriers and intermediate handlers holding nonhuman primates in animal holding areas of terminals to keep the animals away from inanimate cargo, to

clean and sanitize the area, to have an effective pest control program, to provide air, and to maintain the ambient temperature within certain prescribed limits. Under the existing regulations, there is no similar obligation imposed upon other persons who transport these animals. As a result, animals could be held in animal holding areas under hazardous conditions.

We proposed that the same duties imposed by the existing regulations upon carriers and intermediate handlers be imposed upon any person subject to the regulations transporting nonhuman primates and holding them in animal holding areas, since the animals require the same minimum level of care regardless of which regulated person is transporting the animals.

We proposed to add restrictions to prevent regulated persons from holding nonhuman primates within physical and visual reach of other animals and other species of nonhuman primates, since this is upsetting to them. We also proposed that the length of time regulated persons may hold nonhuman primates in terminal facilities upon arrival would be the same as that allowed for consigned animals under proposed § 3.86(g). A small number of commenters requested clarification of the provision restricting placement of nonhuman primates near other animals. We consider the provision self-explanatory as written, and are making no changes based on these comments.

In proposed § 3.91, we proposed to continue the temperature and ventilation requirements contained in existing § 3.90 and also to include the provisions requiring shelter from the elements for nonhuman primates that are included in existing § 3.91, "Handling," because they are applicable to regulated persons holding nonhuman primates in animal holding areas of terminal facilities. Under our proposal, the proposed regulations for handling would be limited to the safeguards that must be provided during physical handling and movement of nonhuman primates, as its heading suggests.

A small number of commenters supported the provisions of proposed § 3.91 as written. A small number of commenters objected to the allowable temperature range for holding facilities. Several commenters stated that this range was narrower than that for housing facilities. Upon review of the comments, we agree that the temperature limits in terminal facilities should be consistent with those in housing facilities. Therefore, we are providing in this final rule that the ambient temperature in an animal holding area containing nonhuman primates must not fall below 45 °F (7 .2 °C) for more than 4 consecutive hours when nonhuman primates are present, and must not rise above 85 °F (29.5 °C) for more than 4 consecutive hours when nonhuman primates are present. Additionally, we are providing that auxiliary ventilation must be used in any animal holding area containing nonhuman primates when the ambient temperature is 85 °F (29.2 °C) or higher.

One commenter recommended that bedding be provided for all primates, and that nest boxes with deep bedding be provided for small primates when the ambient temperature reaches a low of 45 °F . We are making no changes based on this comment. Under these regulations, an animal will not be exposed to temperatures below 45 °F unless acclimated, as certified by a veterinarian. Further, we do not consider requiring bedding and nest boxes to be practical during transportation.

A number of commenters stated that the cleaning, sanitization, and pest control standards should not be as stringent for terminal facilities as for housing facilities, because animals spend such a short period of time in transport. While we agree that the animals themselves will not largely contribute to the need for sanitation, we consider thorough cleaning of the animal holding area to be necessary for the animals' well-being, due to the wide variety of other materials that will normally be kept in such areas.

Handling—Section 3.92

Existing § 3.91 imposes duties on carriers and intermediate handlers for proper handling and movement of nonhuman primates. For the reasons explained above under "Terminal Facilities," we proposed that these same duties be imposed upon any person subject to the regulations handling a nonhuman primate at any time during the course of transportation in commerce, so that the animals' health, safety, and well-being will be protected at all times during transport. The regulations we proposed would continue to include movement from an animal holding area of a terminal facility to a primary conveyance and from a primary conveyance to a terminal facility. They would also continue to provide requirements for movement of a nonhuman primate on a transporting device. We proposed to broaden this section to include movement within and between primary conveyances, and movement within and between terminal facilities, because nonhuman primates may travel on several different primary conveyances and be moved around within terminal complexes in the course of their travel.

We also proposed to require that transporting devices on which nonhuman primates are placed to move them be covered to protect the nonhuman primates when the outdoor temperature falls below 45 °F (7.2 °C). The existing regulations require this protection when the outdoor temperature falls below 50 °F (10 °C). A number of commenters stated that the proposed temperature limits relating to handling were not stringent enough. We are making no changes based on these comments. The allowable temperatures set forth in the regulations are further limited by the period of time animals may be exposed to these temperatures. We consider them reasonable and adequate to allow for short periods of exposure to cool or warm temperatures that may be necessary under normal handling conditions.

Among the requirements we set forth in § 3.92 as proposed was the provision that any person handling a primary enclosure containing a nonhuman primate must use care and must avoid causing physical harm or emotional distress to the nonhuman primate. A small number of commenters stated that the term "emotional distress" should be changed to "psychological distress" because attributing emotions to animals is anthropomorphic. We do not agree that animals do not show emotion. However, we are deleting the word "emotional" in § 3.92 to allow for broader enforcement of the word "distress."

Miscellaneous

Some commenters recommended that we make various nonsubstantive wording changes to the proposal for purposes of clarity, including certain nomenclature changes and the deletion of certain provisions the commenters considered redundant. We have made such changes where we considered them appropriate, and have also made certain other nonsubstantive wording changes to clarify the regulations.

Additionally, a number of commenters made recommendations that addressed issues outside the scope of the proposal, such as the appropriateness of using animals in research, whether APHIS is appropriated sufficient funds for enforcement purposes, and what types of penalties would be appropriate for violations of the regulations. A number of commenters recommended provisions that were already included in the proposal. We are making no changes in this final rule based on these comments.

Comments Regarding the Regulatory Impact and Flexibility Analysis

As required by Executive Order 12291 and the Regulatory Flexibility Act, 5 U.S.C. 601–612, the Department analyzed the regulatory implications of the revised standards for the humane handling, care, treatment, and transportation of dogs, cats, and nonhuman primates published in the proposal. A large number of commenters addressed our regulatory impact analysis and its compliance with federal rulemaking procedures. Below we provide an analysis of the comments and our responses.

A large number of commenters in general expressed concerns about the lack of scientific justification for the revised standards in the presence of significant costs to be imposed on regulated establishments and the economy. Many commenters added that the Department has shown a lack of concern and basic understanding of the operation of regulated entities and, therefore, substantially underestimated the adverse economic impacts of the proposed regulations on animal research. Moreover, many commenters stated that the proposed standards would inflate the cost of animal research making it cost prohibitive without any scientific proof of improvements in animal welfare.

We also received many comments from the research community, dealers, intermediate handlers and carriers, and the general public noting that the cost estimates in the regulatory impact analysis were generally underestimated. A few commenters from the research community and the general public also stated that the Department has failed to consider alternatives that will achieve statutory goals and involve the least cost to society. Others opposed the proposed rules on grounds that these will cost too much to implement and will put small researchers and dealers out of business. Conversely, we received one comment from a member of the general public noting that the regulatory impact analysis contained overinflated cost estimates.

We are acutely aware of the potential regulatory costs or impacts of the revised standards on regulated entities and the economy. We also believe that the revisions included in our regulatory proposals, including this final rule, are necessary to meet our statutory obligations. We strongly disagree with the comments concerning our lack of efforts and understanding of affected entities. In developing new standards, including the final rule in this docket, we have given careful and extensive consideration to the "major rule" impact that the animal welfare regulations would have on the economy, the regulated establishments, and public health. We have also set regulatory priorities with the aim of minimizing the potential adverse impacts of the regulations and continued the assessment of alternative and least costly provisions that can achieve similar statutory objectives.

The revision of animal welfare regulations as mandated by Congress has been a lengthy and difficult task. In performing this task, we have continually worked toward developing the most reasonable and justifiable standards based on available scientific knowledge, sought and reviewed extensive public comments, conducted ongoing consultation with other Federal agencies and professional organizations, developed and considered alternative proposals, adopted least costly alternatives that would foster improved animal care and accomplish statutory objectives, and allowed for innovative ideas and on-site professionals to exercise their judgment in meeting the need of animals under their care.

We have continually attempted to improve our analysis of potential costs on regulated entities and the economy. In general, our analysis has relied on several informational sources, such as expert opinion from across the country, inspection forms of regulated sites, and experience in the implementation of animal welfare regulations and assessing the potential regulatory burden. In performing the analysis, we have acknowledged the presence of problems in the measurement of complex variables and other related factors, lack of statistical or any other available data sources, regional and structural diversity of regulated establishments, problems with quantifying potential benefits and indirect effects on animal research, and time and resource constraints. However, we consider the analysis as representing our extensive efforts to promulgate revised regulations and fulfill our obligations under federal guidelines for regulatory processes.

Several other commenters indicated that the Department has failed to do a cost-benefit analysis as required by Executive Order 12291. A few commenters from the research community and the general public added that the revised standards provided no benefit to animals or improvements in animal care.

The general requirements for a regulatory impact analysis under Executive Order 12291 recommend that benefits and costs be examined and that regulatory objectives be chosen to maximize net benefits to society or involve the least cost to society. Our analysis of the revised standards examined the potential benefits to society and animals and indicated that these benefits could not be properly quantified. The estimation of social benefits in monetary terms would have required an empirical analysis of marginal increases in social welfare or utility due to the regulations. If such an analysis could have been completed, it would have taken considerable time and resources to complete. In the absence of actual dollar figures for benefits, therefore, it was not feasible for the Department to estimate the net potential benefits from the regulations. However, we stated in our analysis that the Congressional mandate to promulgate more stringent animal welfare regulations reflected the increasing public demands for increased levels of humane care and treatment of animals used for human ends.

We also disagree with the comments that regulated animals will not receive improved animal handling, care, and treatment under the revised standards. There has been considerable scientific data and increased public opinion that supports the intent of Congress to increase the level of animal care and treatment afforded to animals in regulated establishments. Requirements that provide for better and enriched animal housing environments, appropriate veterinary care, procedures that minimize animal pain and discomfort, and innovative primary enclosures are some of the factors that support the increased level of welfare and benefits to regulated animals.

Statutory Authority for this Final Rule

This rule is issued pursuant to the Animal Welfare Act (Act), as amended, 7 U.S.C. 2131–2159. Congress, in enacting the Food Security Act of 1985, Public Law No. 99–198, added significant new responsibilities to the Secretary's existing responsibilities to promulgate standards for the care and treatment of animals covered under the Act. The declared policy of the Act is to ensure that animals intended for use in research facilities, as pets, or for exhibition purposes, are provided humane care and treatment; to assure the humane treatment of animals during transportation; and to prevent the sale of stolen animals.

The Act requires that the Secretary of Agriculture promulgate standards to govern the humane handling, care, treatment and transportation of animals

by dealers, operators of auction sales, research facilities, exhibitors, and carriers and intermediate handlers. These standards are to include minimum requirements for handling, housing, feeding, watering, sanitation, ventilation, shelter from extremes of weather and temperatures, adequate veterinary care, and separation of species. The 1985 amendments to the Act specifically require the Secretary to promulgate standards for exercise of dogs and for a physical environment adequate to promote the psychological well-being of primates.

This rule includes changes and additions to the standards required by the 1985 amendments as well as modifications based on our experience in administering and enforcing the Act. The Act authorizes these changes specifically in section 13 (7 U.S.C. 2143) and in the additional grant of rulemaking authority contained in section 21 (7 U.S.C. 2151).

Executive Order 12291

The Department has examined the regulatory impact of this final rule in accordance with Executive Order 12291.

This final rule revises the standards for the humane handling, care, treatment, and transportation of dogs, cats, and nonhuman primates (subparts A and D, part 3, Standards). It includes the new provisions for exercise of dogs and for a physical environment adequate to promote the psychological well-being of nonhuman primates, as required by the amendments to the Animal Welfare Act. The amendments to the Act reflect a Congressional determination that additional or revised standards governing the humane care and treatment of captive animals are desirable and necessary.

In developing the final standards, we examined alternative regulatory approaches. We adopted least costly alternatives which would foster improved animal care and accomplish regulatory objectives. We gave careful and extensive consideration to the more than 11,900 public comments received on our proposal. We consulted with other Federal agencies. Finally, we implemented, to the extent possible, performance standards, innovative ideas, and professional judgment for meeting the need of captive animals.

We have determined that this final rule is within the authority delegated to the Department by statutory law and it does not conflict, overlap, or contradict other Federal regulations, policies, or guidelines on laboratory animal care, use, and treatment practices.

The regulatory impact of this rule is discussed in more detail in a Final Regulatory Impact and Flexibility Analysis, available for public inspection at the APHIS Public Reading Room, room 1141, U.S. Department of Agriculture, 14th Street and Independence Avenue SW., Washington, DC, between 8 a.m. and 4:30 p.m., Monday through Friday, except holidays, or by telephoning (202) 382–1368. The main findings of the analysis are discussed below.

Compliance with the final standards would result in additional costs for affected regulated establishments over those imposed by the current standards. The largest regulatory impact on regulated establishments would result from the new requirements to ensure the exercise of dogs and a physical environment adequate to promote the psychological well-being of nonhuman primates. Study results indicate that regulated establishments may be required to spend approximately $144 million for additional capital improvements and $26 million in annual operating costs once the final rule becomes effective.

We are acutely aware of the potential cost impact of this rule on the operation of regulated establishments. As we discuss in the "**SUPPLEMENTARY INFORMATION**" of this final rule, many commenters responding to our proposed rule pointed out that certain of the new standards would require affected facilities to make extensive structural changes. These new standards are identified under the heading "**EFFECTIVE DATES.**" Therefore, with regard to these provisions, we are continuing the existing regulations for the period prior to February 15, 1994. On and after February 15, 1994, establishments must comply with the new provisions set forth in this rule, as identified at the affected sections. This period of time before compliance with certain of the new provisions is required will allow establishments sufficient time and flexibility to comply with those provisions. But, we will require the plans for providing exercise for dogs and for promoting the psychological well-being of nonhuman primates to be adopted and implemented within 180 days after the publication date of this rule.

The discounted value of the total cost impact on regulated establishments is estimated at approximately $408 million. These additional costs indicate that the new standards in part 3 constitute a "major rule" and may significantly increase costs for animal care and housing. The study indicates that over 71 percent of the total capital expenditures would potentially fall on research facilities. The study also indicates that approximately 81 percent of the total annual operating costs would also fall on research facilities.

These additional compliance costs may also result in increased costs for animal exhibits, wholesale pet dealers, and biomedical research and drug development where there are no available alternatives that fully replace the use of a living biological system. Continued animal research is vital to develop therapies for diseases such as AIDS, Parkinson's disease, and heart diseases. Important tradeoffs between the welfare of animals and human welfare may occur.

Little evidence exists to indicate that increased regulatory costs would cause regulated establishments to abandon their uses of animals. In order to maintain the same level of activity, the cost of operating these establishments would increase in the short run. However, for those forms of research where alternative testing methods that do not require the use of animals exist, this final rule may promote more rapid development of alternative technologies that might otherwise take longer to evolve. In the long run, the availability of substitutes to animal uses in research, testing, and education or the use of innovative techniques may moderate the initial increase in the cost of production.

The main focus of the regulatory analysis is on the potential compliance costs to be imposed on regulated establishments. The least-cost criterion indicates that the performance-based alternatives included in this final rule are preferred. This is because the final standards allow more flexibility, thus regulated establishments can meet requirements through several means of compliance.

A more stringent set of standards was considered in the original proposal to amend part 3 that was published in the **Federal Register** on March 15, 1989. The discounted value of the total impact of the original proposed rule was estimated at $1.75 billion dollars, an amount over four times the impact estimated for this final rule.

We are aware that animal welfare standards are social regulation activities of government that are characterized by extensive market externalities and inherent difficulties in measuring social benefits and costs at the margin.

In the case of this final rule, it is difficult to measure its efficiency or net benefits, because economic agents other than the regulated establishments and consumers are involved. For animal welfare, the applicable economic theory is for the case of a regulated establishment that produces a private

good and generates a social concern in the process—animal use, pain, discomfort, and suffering. Regulations force the regulated entity to change its production process and reduce the social implications of its actions, but it will also raise its production and consumer costs and generate social opportunity costs.

Alternatively, society in general has an interest in whether the production activities of such entities create excessive animal pain, discomfort, and suffering, and any net benefit-cost estimation must include any improvements in the level of animal welfare. The crucial economic question is whether the social costs imposed by this final rule are adequately balanced with the social benefits at the margin.

Potential social benefits resulting from the new standards were discussed in the analysis, but could not be properly quantified. The estimation of social benefits in monetary terms would have required a lengthy and cost prohibitive study of marginal increases in social welfare or utility. This is because animal welfare is an anthropomorphic attribute. Such study would have measured the increase in the level of public perception in animal welfare as the level of stringency of the regulations also increases.

Finally, because of the complexity and difficulty in measuring the regulatory implications, we have continually given careful and extensive consideration to the potential regulatory impacts associated with the animal welfare regulations. Finalizing the regulations as mandated by Congress has been a difficult and lengthy process. In performing this task, we set regulatory priorities with the aim of developing the most reasonable and justified standards based on our past experience and available scientific knowledge.

Regulatory Flexibility Act

The Department also analyzed the potential impact of this final rule on small entities as required by the Regulatory Flexibility Act (Pub. L. 96–354).

The study is discussed in more detail in a Final Regulatory Impact and Flexibility Analysis, which is available for public inspection in the APHIS Public Reading Room, room 1141, U.S. Department of Agriculture, 14th Street and Independence Avenue SW., Washington, DC, between 8 a.m. and 4:30 p.m., Monday through Friday, except holidays, or by telephoning (202) 382–1368.

The Department estimates that approximately 1,460 small entities may be affected by the revised requirements in subparts A and D, part 3, Standards. These 1,460 entities represent about 39 percent of all small establishments (3,771) licensed to operate animal ventures under provisions of the Animal Welfare Act. We estimate that this rule imposes additional compliance costs to 1,227 small breeders, 183 small dealers, and 50 small exhibitors. The Department does not anticipate major regulatory impacts on small research sites. This is because the affected research sites or facilities housing cats, dogs, or nonhuman primates for research, testing, or educational purposes would not qualify as small entities. For the most part, affected animal research sites belong to large academic and non-profit institutions, or private companies.

The total regulatory burden on small breeders, dealers, and exhibitors resulting from this final rule is estimated at approximately $32 million. This estimate represents the sum of discounted values of annual costs ($1.64 million per year discounted at 10 percent into perpetuity) to hire additional animal caretakers or handlers, and capital expenditures of $16 million to replace, construct, or equip new cat, dog, and nonhuman primate enclosures and improve sheltered housing facilities. The average discounted total impact per affected small entity is estimated at approximately $22,000 per affected animal site.

Of the small entities, small breeders would be most affected by this final rule, incurring approximately 80 percent of the estimated compliance costs, mostly from the new revised requirements for the exercise of dogs. An important distributional effect is that the impact on breeders will be concentrated on dog breeders in the Midwest region of the country. Eighty-five percent of all breeders are located in this region.

In developing this final rule, the Department has adopted the less costly approach to amend subparts A and D of part 3, Standards. The preliminary regulatory flexibility analysis of the March 15, 1989 original proposal estimated a discounted value of the total impact on all small affected entities at about $154 million, or an average of $105,249 per affected animal site. A comparison between the original proposed rule and this final rule indicates a potential five-fold decrease in the potential costs to be imposed on affected small entities.

Executive Order 12372

These programs/activities under 9 CFR part 3, subparts A and D, are listed in the Catalog of Federal Domestic Assistance under No. 10.025 and are subject to the provisions of Executive Order 12372, which requires intergovernmental consultation with State and local officials. (See 7 CFR part 3015, subpart V.)

Paperwork Reduction Act

In accordance with Section 3507 of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501, *et seq.*), the information collection provisions that are included in this rule have been approved by the Office of Management and Budget (OMB) and have been given OMB control number 0579–0093.

List of Subjects in 9 CFR Part 3

Animal welfare, Humane animal handling, Pets, Reporting and recordkeeping requirements, Transportation.

Accordingly, we are amending 9 CFR part 3 to read as follows:

PART 3—STANDARDS

1. The authority citation for part 3 is revised to read as follows, and the authority citation following all the sections is removed:

Authority: 7 U.S.C. 2131–2156; 7 CFR 2.17, 2.51, and 371.2(d).

2. Subpart A is revised to read as follows:

Subpart A—Specifications for the Humane Handling, Care, Treatment, and Transportation of Dogs and Cats

Facilities and Operating Standards

Sec.

3.1 Housing facilities, general.
3.2 Indoor housing facilities.
3.3 Sheltered housing facilities.
3.4 Outdoor housing facilities.
3.5 Mobile or traveling housing facilities.
3.6 Primary enclosures.

Animal Health and Husbandry Standards

3.7 Compatible grouping.
3.8 Exercise for dogs.
3.9 Feeding.
3.10 Watering.
3.11 Cleaning, sanitization, housekeeping, and pest control.
3.12 Employees.

Transportation Standards

3.13 Consignments to carriers and intermediate handlers.
3.14 Primary enclosures used to transport live dogs and cats.
3.15 Primary conveyances (motor vehicle, rail, air, and marine).
3.16 Food and water requirements.
3.17 Care in transit.
3.18 Terminal facilities.
3.19 Handling.

Subpart A—Specifications for the Humane Handling, Care, Treatment, and Transportation of Dogs and Cats [1]

Facilities and Operating Standards

§ 3.1 Housing facilities, general.

(a) *Structure; construction.* Housing facilities for dogs and cats must be designed and constructed so that they are structurally sound. They must be kept in good repair, and they must protect the animals from injury, contain the animals securely, and restrict other animals from entering.

(b) *Condition and site.* Housing facilities and areas used for storing animal food or bedding must be free of any accumulation of trash, waste material, junk, weeds, and other discarded materials. Animal areas inside of housing facilities must be kept neat and free of clutter, including equipment, furniture, and stored material, but may contain materials actually used and necessary for cleaning the area, and fixtures or equipment necessary for proper husbandry practices and research needs. Housing facilities other than those maintained by research facilities and Federal research facilities must be physically separated from any other business. If a housing facility is located on the same premises as another business, it must be physically separated from the other business so that animals the size of dogs, skunks, and raccoons are prevented from entering it.

(c) *Surfaces*—(1) *General requirements.* The surfaces of housing facilities—including houses, dens, and other furniture-type fixtures and objects within the facility—must be constructed in a manner and made of materials that allow them to be readily cleaned and sanitized, or removed or replaced when worn or soiled. Interior surfaces and any surfaces that come in contact with dogs or cats must:

(i) Be free of excessive rust that prevents the required cleaning and sanitization, or that affects the structural strength of the surface; and

(ii) Be free of jagged edges or sharp points that might injure the animals.

(2) *Maintenance and replacement of surfaces.* All surfaces must be maintained on a regular basis. Surfaces of housing facilities—including houses, dens, and other furniture-type fixtures and objects within the facility—that cannot be readily cleaned and sanitized, must be replaced when worn or soiled.

(3) *Cleaning.* Hard surfaces with which the dogs or cats come in contact must be spot-cleaned daily and sanitized in accordance with § 3.11(b) of this subpart to prevent accumulation of excreta and reduce disease hazards. Floors made of dirt, absorbent bedding, sand, gravel, grass, or other similar material must be raked or spot-cleaned with sufficient frequency to ensure all animals the freedom to avoid contact with excreta. Contaminated material must be replaced whenever this raking and spot-cleaning is not sufficient to prevent or eliminate odors, insects, pests, or vermin infestation. All other surfaces of housing facilities must be cleaned and sanitized when necessary to satisfy generally accepted husbandry standards and practices. Sanitization may be done using any of the methods provided in § 3.11(b)(3) for primary enclosures.

(d) *Water and electric power.* The housing facility must have reliable electric power adequate for heating, cooling, ventilation, and lighting, and for carrying out other husbandry requirements in accordance with the regulations in this subpart. The housing facility must provide adequate running potable water for the dogs' and cats' drinking needs, for cleaning, and for carrying out other husbandry requirements.

(e) *Storage.* Supplies of food and bedding must be stored in a manner that protects the supplies from spoilage, contamination, and vermin infestation. The supplies must be stored off the floor and away from the walls, to allow cleaning underneath and around the supplies. Foods requiring refrigeration must be stored accordingly, and all food must be stored in a manner that prevents contamination and deterioration of its nutritive value. All open supplies of food and bedding must be kept in leakproof containers with tightly fitting lids to prevent contamination and spoilage. Only food and bedding that is currently being used may be kept in the animal areas. Substances that are toxic to the dogs or cats but are required for normal husbandry practices must not be stored in food storage and preparation areas, but may be stored in cabinets in the animal areas.

(f) *Drainage and waste disposal.* Housing facility operators must provide for regular and frequent collection, removal, and disposal of animal and food wastes, bedding, debris, garbage, water, other fluids and wastes, and dead animals, in a manner that minimizes contamination and disease risks. Housing facilities must be equipped with disposal facilities and drainage systems that are constructed and operated so that animal waste and water are rapidly eliminated and animals stay dry. Disposal and drainage systems must minimize vermin and pest infestation, insects, odors, and disease hazards. All drains must be properly constructed, installed, and maintained. If closed drainage systems are used, they must be equipped with traps and prevent the backflow of gases and the backup of sewage onto the floor. If the facility uses sump or settlement ponds, or other similar systems for drainage and animal waste disposal, the system must be located far enough away from the animal area of the housing facility to prevent odors, diseases, pests, and vermin infestation. Standing puddles of water in animal enclosures must be drained or mopped up so that the animals stay dry. Trash containers in housing facilities and in food storage and food preparation areas must be leakproof and must have tightly fitted lids on them at all times. Dead animals, animal parts, and animal waste must not be kept in food storage or food preparation areas, food freezers, food refrigerators, or animal areas.

(g) *Washrooms and sinks.* Washing facilities such as washrooms, basins, sinks, or showers must be provided for animal caretakers and must be readily accessible.

§ 3.2 Indoor housing facilities.

(a) *Heating, cooling, and temperature.* Indoor housing facilities for dogs and cats must be sufficiently heated and cooled when necessary to protect the dogs and cats from temperature extremes and to provide for their health and well-being. When dogs or cats are present, the ambient temperature in the facility must not fall below 50 °F (10 °C) for dogs and cats not acclimated to lower temperatures, for those breeds that cannot tolerate lower temperatures without stress or discomfort (such as short-haired breeds), and for sick, aged, young, or infirm dogs and cats, except as approved by the attending veterinarian. Dry bedding, solid resting boards, or other methods of conserving body heat must be provided when temperatures are below 50 °F (10 °C). The ambient temperature must not fall below 45 °F (7.2 °C) for more than 4 consecutive hours when dogs or cats are present, and must not rise above 85 °F (29.5 °C) for more than 4 consecutive hours when dogs or cats are present.

(b) *Ventilation.* Indoor housing facilities for dogs and cats must be sufficiently ventilated at all times when dogs or cats are present to provide for their health and well-being, and to minimize odors, drafts, ammonia levels, and moisture condensation. Ventilation

[1] These minimum standards apply only to live dogs and cats, unless stated otherwise.

must be provided by windows, vents, fans, or air conditioning. Auxiliary ventilation, such as fans, blowers, or air conditioning must be provided when the ambient temperature is 85 °F (29.5 °C) or higher. The relative humidity must be maintained at a level that ensures the health and well-being of the dogs or cats housed therein, in accordance with the directions of the attending veterinarian and generally accepted professional and husbandry practices.

(c) *Lighting.* Indoor housing facilities for dogs and cats must be lighted well enough to permit routine inspection and cleaning of the facility, and observation of the dogs and cats. Animal areas must be provided a regular diurnal lighting cycle of either natural or artificial light. Lighting must be uniformly diffused throughout animal facilities and provide sufficient illumination to aid in maintaining good housekeeping practices, adequate cleaning, adequate inspection of animals, and for the well-being of the animals. Primary enclosures must be placed so as to protect the dogs and cats from excessive light.

(d) *Interior surfaces.* The floors and walls of indoor housing facilities, and any other surfaces in contact with the animals, must be impervious to moisture. The ceilings of indoor housing facilities must be impervious to moisture or be replaceable (e.g., a suspended ceiling with replaceable panels).

§ 3.3 Sheltered housing facilities.

(a) *Heating, cooling, and temperature.* The sheltered part of sheltered housing facilities for dogs and cats must be sufficiently heated and cooled when necessary to protect the dogs and cats from temperature extremes and to provide for their health and well-being. The ambient temperature in the sheltered part of the facility must not fall below 50 °F (10 °C) for dogs and cats not acclimated to lower temperatures, for those breeds that cannot tolerate lower temperatures without stress and discomfort (such as short-haired breeds), and for sick, aged, young, or infirm dogs or cats, except as approved by the attending veterinarian. Dry bedding, solid resting boards, or other methods of conserving body heat must be provided when temperatures are below 50 °F (10 °C). The ambient temperature must not fall below 45 °F (7.2 °C) for more than 4 consecutive hours when dogs or cats are present, and must not rise above 85 °F (29.5 °C) for more than 4 consecutive hours when dogs or cats are present.

(b) *Ventilation.* The enclosed or sheltered part of sheltered housing facilities for dogs and cats must be sufficiently ventilated when dogs or cats are present to provide for their health and well-being, and to minimize odors, drafts, ammonia levels, and moisture condensation. Ventilation must be provided by windows, doors, vents, fans, or air conditioning. Auxiliary ventilation, such as fans, blowers, or air-conditioning, must be provided when the ambient temperature is 85 °F (29.5 °C) or higher.

(c) *Lighting.* Sheltered housing facilities for dogs and cats must be lighted well enough to permit routine inspection and cleaning of the facility, and observation of the dogs and cats. Animal areas must be provided a regular diurnal lighting cycle of either natural or artificial light. Lighting must be uniformly diffused throughout animal facilities and provide sufficient illumination to aid in maintaining good housekeeping practices, adequate cleaning, adequate inspection of animals, and for the well-being of the animals. Primary enclosures must be placed so as to protect the dogs and cats from excessive light.

(d) *Shelter from the elements.* Dogs and cats must be provided with adequate shelter from the elements at all times to protect their health and well-being. The shelter structures must be large enough to allow each animal to sit, stand, and lie in a normal manner and to turn about freely.

(e) *Surfaces.* (1) The following areas in sheltered housing facilities must be impervious to moisture:

(i) Indoor floor areas in contact with the animals;

(ii) Outdoor floor areas in contact with the animals, when the floor areas are not exposed to the direct sun, or are made of a hard material such as wire, wood, metal, or concrete; and

(iii) All walls, boxes, houses, dens, and other surfaces in contact with the animals.

(2) Outside floor areas in contact with the animals and exposed to the direct sun may consist of compacted earth, absorbent bedding, sand, gravel, or grass.

§ 3.4 Outdoor housing facilities.

(a) *Restrictions.* (1) The following categories of dogs or cats must not be kept in outdoor facilities, unless that practice is specifically approved by the attending veterinarian:

(i) Dogs or cats that are not acclimated to the temperatures prevalent in the area or region where they are maintained;

(ii) Breeds of dogs or cats that cannot tolerate the prevalent temperatures of the area without stress or discomfort (such as short-haired breeds in cold climates); and

(iii) Sick, infirm, aged or young dogs or cats.

(2) When their acclimation status is unknown, dogs and cats must not be kept in outdoor facilities when the ambient temperature is less than 50 °F (10 °C).

(b) *Shelter from the elements.* Outdoor facilities for dogs or cats must include one or more shelter structures that are accessible to each animal in each outdoor facility, and that are large enough to allow each animal in the shelter structure to sit, stand, and lie in a normal manner, and to turn about freely. In addition to the shelter structures, one or more separate outside areas of shade must be provided, large enough to contain all the animals at one time and protect them from the direct rays of the sun. Shelters in outdoor facilities for dogs or cats must contain a roof, four sides, and a floor, and must:

(1) Provide the dogs and cats with adequate protection and shelter from the cold and heat;

(2) Provide the dogs and cats with protection from the direct rays of the sun and the direct effect of wind, rain, or snow;

(3) Be provided with a wind break and rain break at the entrance; and

(4) Contain clean, dry, bedding material if the ambient temperature is below 50 °F (10 °C). Additional clean, dry bedding is required when the temperature is 35 °F (1.7 °C) or lower.

(c) *Construction.* Building surfaces in contact with animals in outdoor housing facilities must be impervious to moisture. Metal barrels, cars, refrigerators or freezers, and the like must not be used as shelter structures. The floors of outdoor housing facilities may be of compacted earth, absorbent bedding, sand, gravel, or grass, and must be replaced if there are any prevalent odors, diseases, insects, pests, or vermin. All surfaces must be maintained on a regular basis. Surfaces of outdoor housing facilities—including houses, dens, etc.—that cannot be readily cleaned and sanitized, must be replaced when worn or soiled.

§ 3.5 Mobile or traveling housing facilities.

(a) *Heating, cooling, and temperature.* Mobile or traveling housing facilities for dogs and cats must be sufficiently heated and cooled when necessary to protect the dogs and cats from temperature extremes and to provide for their health and well-being. The ambient temperature in the mobile or traveling housing facility must not fall below 50 °F (10 °C) for dogs and cats not acclimated to lower temperatures, for those breeds that cannot tolerate lower temperatures

without stress or discomfort (such as short-haired breeds), and for sick, aged, young, or infirm dogs and cats. Dry bedding, solid resting boards, or other methods of conserving body heat must be provided when temperatures are below 50 °F (10 °C). The ambient temperature must not fall below 45 °F (7.2 °C) for more than 4 consecutive hours when dogs or cats are present, and must not exceed 85 °F (29.5 °C) for more than 4 consecutive hours when dogs or cats are present.

(b) *Ventilation.* Mobile or traveling housing facilities for dogs and cats must be sufficiently ventilated at all times when dogs or cats are present to provide for the health and well-being of the animals, and to minimize odors, drafts, ammonia levels, moisture condensation, and exhaust fumes. Ventilation must be provided by means of windows, doors, vents, fans, or air conditioning. Auxiliary ventilation, such as fans, blowers, or air conditioning, must be provided when the ambient temperature within the animal housing area is 85 °F (29.5 °C) or higher.

(c) *Lighting.* Mobile or traveling housing facilities for dogs and cats must be lighted well enough to permit proper cleaning and inspection of the facility, and observation of the dogs and cats. Animal areas must be provided a regular diurnal lighting cycle of either natural or artificial light. Lighting must be uniformly diffused throughout animal facilities and provide sufficient illumination to aid in maintaining good housekeeping practices, adequate cleaning, adequate inspection of animals, and for the well-being of the animals.

§ 3.6 Primary enclosures.

Primary enclosures for dogs and cats must meet the following minimum requirements:

(a) *General requirements.*

(1) Primary enclosures must be designed and constructed of suitable materials so that they are structurally sound. The primary enclosures must be kept in good repair.

(2) Primary enclosures must be constructed and maintained so that they:

(i) Have no sharp points or edges that could injure the dogs and cats;

(ii) Protect the dogs and cats from injury;

(iii) Contain the dogs and cats securely;

(iv) Keep other animals from entering the enclosure;

(v) Enable the dogs and cats to remain dry and clean;

(vi) Provide shelter and protection from extreme temperatures and weather conditions that may be uncomfortable or hazardous to all the dogs and cats;

(vii) Provide sufficient shade to shelter all the dogs and cats housed in the primary enclosure at one time;

(viii) Provide all the dogs and cats with easy and convenient access to clean food and water;

(ix) Enable all surfaces in contact with the dogs and cats to be readily cleaned and sanitized in accordance with § 3.11(b) of this subpart, or be replaceable when worn or soiled;

(x) Have floors that are constructed in a manner that protects the dogs' and cats' feet and legs from injury, and that, if of mesh or slatted construction, do not allow the dogs' and cats' feet to pass through any openings in the floor. If the floor of the primary enclosure is constructed of wire, a solid resting surface or surfaces that, in the aggregate, are large enough to hold all the occupants of the primary enclosure at the same time comfortably must be provided; and

(xi) Provide sufficient space to allow each dog and cat to turn about freely, to stand, sit, and lie in a comfortable, normal position, and to walk in a normal manner.

(b) *Additional requirements for cats.*

(1) *Space.* Each cat, including weaned kittens, that is housed in any primary enclosure must be provided minimum vertical space and floor space as follows:

(i) Prior to February 15, 1994 each cat housed in any primary enclosure shall be provided a minimum of 2½ square feet of floor space;

(ii) On and after February 15, 1994:

(A) Each primary enclosure housing cats must be at least 24 in. high (60.96 cm);

(B) Cats up to and including 8.8 lbs (4 kg) must be provided with at least 3.0 ft^2 (0.28 m^2);

(C) Cats over 8.8 lbs (4 kg) must be provided with at least 4.0 ft^2 (0.37 m^2);

(iii) Each queen with nursing kittens must be provided with an additional amount of floor space, based on her breed and behavioral characteristics, and in accordance with generally accepted husbandry practices. If the additional amount of floor space for each nursing kitten is equivalent to less than 5 percent of the minimum requirement for the queen, such housing must be approved by the attending veterinarian in the case of a research facility, and, in the case of dealers and exhibitors, such housing must be approved by the Administrator; and

(iv) The minimum floor space required by this section is exclusive of any food or water pans. The litter pan may be considered part of the floor space if properly cleaned and sanitized.

(2) *Compatibility.* All cats housed in the same primary enclosure must be compatible, as determined by observation. Not more than 12 adult nonconditioned cats may be housed in the same primary enclosure. Queens in heat may not be housed in the same primary enclosure with sexually mature males, except for breeding. Except when maintained in breeding colonies, queens with litters may not be housed in the same primary enclosure with other adult cats, and kittens under 4 months of age may not be housed in the same primary enclosure with adult cats, other than the dam or foster dam. Cats with a vicious or aggressive disposition must be housed separately.

(3) *Litter.* In all primary enclosures, a receptacle containing sufficient clean litter must be provided to contain excreta and body wastes.

(4) *Resting surfaces.* Each primary enclosure housing cats must contain a resting surface or surfaces that, in the aggregate, are large enough to hold all the occupants of the primary enclosure at the same time comfortably. The resting surfaces must be elevated, impervious to moisture, and be able to be easily cleaned and sanitized, or easily replaced when soiled or worn. Low resting surfaces that do not allow the space under them to be comfortably occupied by the animal will be counted as part of the floor space.

(5) *Cats in mobile or traveling shows or acts.* Cats that are part of a mobile or traveling show or act may be kept, while the show or act is traveling from one temporary location to another, in transport containers that comply with all requirements of § 3.14 of this subpart other than the marking requirements in § 3.14(a)(6) of this subpart. When the show or act is not traveling, the cats must be placed in primary enclosures that meet the minimum requirements of this section.

(c) *Additional requirements for dogs.*—(1) *Space.* (i) Each dog housed in a primary enclosure (including weaned puppies) must be provided a minimum amount of floor space, calculated as follows: Find the mathematical square of the sum of the length of the dog in inches (measured from the tip of its nose to the base of its tail) plus 6 inches; then divide the product by 144. The calculation is: (length of dog in inches + 6) × (length of dog in inches + 6) = required floor space in square inches. Required floor space in inches/144 = required floor space in square feet.

(ii) Each bitch with nursing puppies must be provided with an additional

amount of floor space, based on her breed and behavioral characteristics, and in accordance with generally accepted husbandry practices as determined by the attending veterinarian. If the additional amount of floor space for each nursing puppy is less than 5 percent of the minimum requirement for the bitch, such housing must be approved by the attending veterinarian in the case of a research facility, and, in the case of dealers and exhibitors, such housing must be approved by the Administrator.

(iii) The interior height of a primary enclosure must be at least 6 inches higher than the head of the tallest dog in the enclosure when it is in a normal standing position: Provided that, prior to February 15, 1994, each dog must be able to stand in a comfortable normal position.

(2) *Dogs on tethers.* (i) Dogs may be kept on tethers only in outside housing facilities that meet the requirements of § 3.4 of this subpart, and only when the tether meets the requirements of this paragraph. The tether must be attached to the front of the dog's shelter structure or to a post in front of the shelter structure and must be at least three times the length of the dog, as measured from the tip of its nose to the base of its tail. The tether must allow the dog convenient access to the shelter structure and to food and water containers. The tether must be of the type and strength commonly used for the size dog involved and must be attached to the dog by a well-fitted collar that will not cause trauma or injury to the dog. Collars made of materials such as wire, flat chains, chains with sharp edges, or chains with rusty or nonuniform links are prohibited. The tether must be attached so that the dog cannot become entangled with other objects or come into physical contact with other dogs in the outside housing facility, and so the dog can roam to the full range of the tether.

(ii) On and after February 15, 1994, dog housing areas where dogs are on tethers must be enclosed by a perimeter fence that is of sufficient height to keep unwanted animals out. Fences less than 6 feet high must be approved by the Administrator. The fence must be constructed so that it protects the dogs by preventing animals the size of dogs, skunks, and raccoons from going through it or under it and having contact with the dogs inside.

(3) *Compatibility.* All dogs housed in the same primary enclosure must be compatible, as determined by observation. Not more than 12 adult nonconditioned dogs may be housed in the same primary enclosure. Bitches in heat may not be housed in the same primary enclosure with sexually mature males, except for breeding. Except when maintained in breeding colonies, bitches with litters may not be housed in the same primary enclosure with other adult dogs, and puppies under 4 months of age may not be housed in the same primary enclosure with adult dogs, other than the dam or foster dam. Dogs with a vicious or aggressive disposition must be housed separately.

(4) *Dogs in mobile or traveling shows or acts.* Dogs that are part of a mobile or traveling show or act may be kept, while the show or act is traveling from one temporary location to another, in transport containers that comply with all requirements of § 3.14 of this subpart other than the marking requirements in § 3.14(a)(6) of this subpart. When the show or act is not traveling, the dogs must be placed in primary enclosures that meet the minimum requirements of this section.

(d) Innovative primary enclosures not precisely meeting the floor area and height requirements provided in paragraphs (b)(1) and (c)(1) of this section, but that provide the dogs or cats with a sufficient volume of space and the opportunity to express species-typical behavior, may be used at research facilities when approved by the Committee, and by dealers and exhibitors when approved by the Administrator.

(Approved by the Office of Management and Budget under control number 0579–0093)

Animal Health and Husbandry Standards

§ 3.7 Compatible grouping.

Dogs and cats that are housed in the same primary enclosure must be compatible, with the following restrictions:

(a) Females in heat (estrus) may not be housed in the same primary enclosure with males, except for breeding purposes;

(b) Any dog or cat exhibiting a vicious or overly aggressive disposition must be housed separately;

(c) Puppies or kittens 4 months of age or less may not be housed in the same primary enclosure with adult dogs or cats other than their dams or foster dams, except when permanently maintained in breeding colonies;

(d) Dogs or cats may not be housed in the same primary enclosure with any other species of animals, unless they are compatible; and

(e) Dogs and cats that have or are suspected of having a contagious disease must be isolated from healthy animals in the colony, as directed by the attending veterinarian. When an entire group or room of dogs and cats 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.

§ 3.8 Exercise for dogs.

Dealers, exhibitors, and research facilities must develop, document, and follow an appropriate plan to provide dogs with the opportunity for exercise. In addition, the plan must be approved by the attending veterinarian. The plan must include written standard procedures to be followed in providing the opportunity for exercise. The plan must be made available to APHIS upon request, and, in the case of research facilities, to officials of any pertinent funding Federal agency. The plan, at a minimum, must comply with each of the following:

(a) *Dogs housed individually.* Dogs over 12 weeks of age, except bitches with litters, housed, held, or maintained by any dealer, exhibitor, or research facility, including Federal research facilities, must be provided the opportunity for exercise regularly if they are kept individually in cages, pens, or runs that provide less than two times the required floor space for that dog, as indicated by § 3.6(c)(1) of this subpart.

(b) *Dogs housed in groups.* Dogs over 12 weeks of age housed, held, or maintained in groups by any dealer, exhibitor, or research facility, including Federal research facilities, do not require additional opportunity for exercise regularly if they are maintained in cages, pens, or runs that provide in total at least 100 percent of the required space for each dog if maintained separately. Such animals may be maintained in compatible groups, unless:

(1) Housing in compatible groups is not in accordance with a research proposal and the proposal has been approved by the research facility Committee;

(2) In the opinion of the attending veterinarian, such housing would adversely affect the health or well-being of the dog(s); or

(3) Any dog exhibits aggressive or vicious behavior.

(c) *Methods and period of providing exercise opportunity.* (1) The frequency, method, and duration of the opportunity for exercise shall be determined by the attending veterinarian and, at research facilities, in consultation with and approval by the Committee.

(2) Dealers, exhibitors, and research facilities, in developing their plan, should consider providing positive

physical contact with humans that encourages exercise through play or other similar activities. If a dog is housed, held, or maintained at a facility without sensory contact with another dog, it must be provided with positive physical contact with humans at least daily.

(3) The opportunity for exercise may be provided in a number of ways, such as:

(i) Group housing in cages, pens or runs that provide at least 100 percent of the required space for each dog if maintained separately under the minimum floor space requirements of § 3.6(c)(1) of this subpart;

(ii) Maintaining individually housed dogs in cages, pens, or runs that provide at least twice the minimum floor space required by § 3.6(c)(1) of this subpart;

(iii) Providing access to a run or open area at the frequency and duration prescribed by the attending veterinarian; or

(iv) Other similar activities.

(4) Forced exercise methods or devices such as swimming, treadmills, or carousel-type devices are unacceptable for meeting the exercise requirements of this section.

(d) *Exemptions.* (1) If, in the opinion of the attending veterinarian, it is inappropriate for certain dogs to exercise because of their health, condition, or well-being, the dealer, exhibitor, or research facility may be exempted from meeting the requirements of this section for those dogs. Such exemption must be documented by the attending veterinarian and, unless the basis for exemption is a permanent condition, must be reviewed at least every 30 days by the attending veterinarian.

(2) A research facility may be exempted from the requirements of this section if the principal investigator determines for scientific reasons set forth in the research proposal that it is inappropriate for certain dogs to exercise. Such exemption must be documented in the Committee-approved proposal and must be reviewed at appropriate intervals as determined by the Committee, but not less than annually.

(3) Records of any exemptions must be maintained and made available to USDA officials or any pertinent funding Federal agency upon request. (Approved by the Office of Management and Budget under control number 0579–0093)

§ 3.9 Feeding.

(a) Dogs and cats must be fed at least once each day, except as otherwise might be required to provide adequate veterinary care. The food must be uncontaminated, wholesome, palatable, and of sufficient quantity and nutritive value to maintain the normal condition and weight of the animal. The diet must be appropriate for the individual animal's age and condition.

(b) Food receptacles must be used for dogs and cats, must be readily accessible to all dogs and cats, and must be located so as to minimize contamination by excreta and pests, and be protected from rain and snow. Feeding pans must either be made of a durable material that can be easily cleaned and sanitized or be disposable. If the food receptacles are not disposable, they must be kept clean and must be sanitized in accordance with § 3.11(b) of this subpart. Sanitization is achieved by using one of the methods described in § 3.11(b)(3) of this subpart. If the food receptacles are disposable, they must be discarded after one use. Self-feeders may be used for the feeding of dry food. If self-feeders are used, they must be kept clean and must be sanitized in accordance with § 3.11(b) of this subpart. Measures must be taken to ensure that there is no molding, deterioration, and caking of feed.

§ 3.10 Watering.

If potable water is not continually available to the dogs and cats, it must be offered to the dogs and cats as often as necessary to ensure their health and well-being, but not less than twice daily for at least 1 hour each time, unless restricted by the attending veterinarian. Water receptacles must be kept clean and sanitized in accordance with § 3.11(b) of this subpart, and before being used to water a different dog or cat or social grouping of dogs or cats.

§ 3.11 Cleaning, sanitization, housekeeping, and pest control.

(a) *Cleaning of primary enclosures.* Excreta and food waste must be removed from primary enclosures daily, and from under primary enclosures as often as necessary to prevent an excessive accumulation of feces and food waste, to prevent soiling of the dogs or cats contained in the primary enclosures, and to reduce disease hazards, insects, pests and odors. When steam or water is used to clean the primary enclosure, whether by hosing, flushing, or other methods, dogs and cats must be removed, unless the enclosure is large enough to ensure the animals would not be harmed, wetted, or distressed in the process. Standing water must be removed from the primary enclosure and animals in other primary enclosures must be protected from being contaminated with water and other wastes during the cleaning. The pans under primary enclosures with grill-type floors and the ground areas under raised runs with wire or slatted floors must be cleaned as often as necessary to prevent accumulation of feces and food waste and to reduce disease hazards pests, insects and odors.

(b) *Sanitization of primary enclosures and food and water receptacles.* (1) Used primary enclosures and food and water receptacles must be cleaned and sanitized in accordance with this section before they can be used to house, feed, or water another dog or cat, or social grouping of dogs or cats.

(2) Used primary enclosures and food and water receptacles for dogs and cats must be sanitized at least once every 2 weeks using one of the methods prescribed in paragraph (b)(3) of this section, and more often if necessary to prevent an accumulation of dirt, debris, food waste, excreta, and other disease hazards.

(3) Hard surfaces of primary enclosures and food and water receptacles must be sanitized using one of the following methods:

(i) Live steam under pressure;

(ii) Washing with hot water (at least 180 °F (82.2 °C)) and soap or detergent, as with a mechanical cage washer; or

(iii) Washing all soiled surfaces with appropriate detergent solutions and disinfectants, or by using a combination detergent/disinfectant product that accomplishes the same purpose, with a thorough cleaning of the surfaces to remove organic material, so as to remove all organic material and mineral buildup, and to provide sanitization followed by a clean water rinse.

(4) Pens, runs, and outdoor housing areas using material that cannot be sanitized using the methods provided in paragraph (b)(3) of this section, such as gravel, sand, grass, earth, or absorbent bedding, must be sanitized by removing the contaminated material as necessary to prevent odors, diseases, pests, insects, and vermin infestation.

(c) *Housekeeping for premises.* Premises where housing facilities are located, including buildings and surrounding grounds, must be kept clean and in good repair to protect the animals from injury, to facilitate the husbandry practices required in this subpart, and to reduce or eliminate breeding and living areas for rodents and other pests and vermin. Premises must be kept free of accumulations of trash, junk, waste products, and discarded matter. Weeds, grasses, and bushes must be controlled so as to facilitate cleaning of the premises and pest control, and to

protect the health and well-being of the animals.

(d) *Pest control.* An effective program for the control of insects, external parasites affecting dogs and cats, and birds and mammals that are pests, must be established and maintained so as to promote the health and well-being of the animals and reduce contamination by pests in animal areas.

§ 3.12 Employees.

Each person subject to the Animal Welfare regulations (9 CFR Parts 1, 2, and 3) maintaining dogs and cats must have enough employees to carry out the level of husbandry practices and care required in this subpart. The employees who provide for husbandry and care, or handle animals, must be supervised by an individual who has the knowledge, background, and experience in proper husbandry and care of dogs and cats to supervise others. The employer must be certain that the supervisor and other employees can perform to these standards.

Transportation Standards

§ 3.13 Consignments to carriers and intermediate handlers.

(a) Carriers and intermediate handlers must not accept a dog or cat for transport in commerce more than 4 hours before the scheduled departure time of the primary conveyance on which the animal is to be transported. However, a carrier or intermediate handler may agree with anyone consigning a dog or cat to extend this time by up to 2 hours.

(b) Carriers and intermediate handlers must not accept a dog or cat for transport in commerce unless they are provided with the name, address, and telephone number of the consignee.

(c) Carriers and intermediate handlers must not accept a dog or cat for transport in commerce unless the consignor certifies in writing to the carrier or intermediate handler that the dog or cat was offered food and water during the 4 hours before delivery to the carrier or intermediate handler. The certification must be securely attached to the outside of the primary enclosure in a manner that makes it easily noticed and read. Instructions for no food or water are not acceptable unless directed by the attending veterinarian. Instructions must be in compliance with § 3.16 of this subpart. The certification must include the following information for each dog and cat:

(1) The consignor's name and address;

(2) The tag number or tattoo assigned to each dog or cat under §§ 2.38 and 2.50 of this chapter;

(3) The time and date the animal was last fed and watered and the specific instructions for the next feeding(s) and watering(s) for a 24-hour period; and

(4) The consignor's signature and the date and time the certification was signed.

(d) Carriers and intermediate handlers must not accept a dog or cat for transport in commerce in a primary enclosure unless the primary enclosure meets the requirements of § 3.14 of this subpart. A carrier or intermediate handler must not accept a dog or cat for transport if the primary enclosure is obviously defective or damaged and cannot reasonably be expected to safely and comfortably contain the dog or cat without causing suffering or injury.

(e) Carriers and intermediate handlers must not accept a dog or cat for transport in commerce unless their animal holding area meets the minimum temperature requirements provided in §§ 3.18 and 3.19 of this subpart, or unless the consignor provides them with a certificate signed by a veterinarian and dated no more than 10 days before delivery of the animal to the carrier or intermediate handler for transport in commerce, certifying that the animal is acclimated to temperatures lower than those required in §§ 3.18 and 3.19 of this subpart. Even if the carrier or intermediate handler receives this certification, the temperatures the dog or cat is exposed to while in a terminal facility must not be lower than 45 °F (2.2 °C) for more than 4 consecutive hours when dogs or cats are present, as set forth in § 3.18, nor lower than 45 °F (2.2 °C) for more than 45 minutes, as set forth in § 3.19, when moving dogs or cats to or from terminal facilities or primary conveyances. A copy of the certification must accompany the dog or cat to its destination and must include the following information:

(1) The consignor's name and address;

(2) The tag number or tattoo assigned to each dog or cat under §§ 2.38 and 2.50 of this chapter;

(3) A statement by a veterinarian, dated no more than 10 days before delivery, that to the best of his or her knowledge, each of the dogs or cats contained in the primary enclosure is acclimated to air temperatures lower than 50 °F (10 °C); but not lower than a minimum temperature, specified on a certificate, that the attending veterinarian has determined is based on generally accepted temperature standards for the age, condition, and breed of the dog or cat; and

(4) The signature of the veterinarian and the date the certification was signed.

(f) When a primary enclosure containing a dog or cat has arrived at the animal holding area at a terminal facility after transport, the carrier or intermediate handler must attempt to notify the consignee upon arrival and at least once in every 6-hour period thereafter. The time, date, and method of all attempted notifications and the actual notification of the consignee, and the name of the person who notifies or attempts to notify the consignee must be written either on the carrier's or intermediate handler's copy of the shipping document or on the copy that accompanies the primary enclosure. If the consignee cannot be notified within 24 hours after the dog or cat has arrived at the terminal facility, the carrier or intermediate handler must return the animal to the consignor or to whomever the consignor designates. If the consignee is notified of the arrival and does not accept delivery of the dog or cat within 48 hours after arrival of the dog or cat, the carrier or intermediate handler must return the animal to the consignor or to whomever the consignor designates. The carrier or intermediate handler must continue to provide proper care, feeding, and housing to the dog or cat, and maintain the dog or cat in accordance with generally accepted professional and husbandry practices until the consignee accepts delivery of the dog or cat or until it is returned to the consignor or to whomever the consignor designates. The carrier or intermediate handler must obligate the consignor to reimburse the carrier or intermediate handler for the cost of return transportation and care.

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§ 3.14 Primary enclosures used to transport live dogs and cats.

Any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) must not transport or deliver for transport in commerce a dog or cat unless the following requirements are met:

(a) *Construction of primary enclosures.* The dog or cat must be contained in a primary enclosure such as a compartment, transport cage, carton, or crate. Primary enclosures used to transport dogs and cats must be constructed so that:

(1) The primary enclosure is strong enough to contain the dogs and cats securely and comfortably and to withstand the normal rigors of transportation;

(2) The interior of the primary enclosure has no sharp points or edges

and no protrusions that could injure the animal contained in it;

(3) The dog or cat is at all times securely contained within the enclosure and cannot put any part of its body outside the enclosure in a way that could result in injury to itself, to handlers, or to persons or animals nearby;

(4) The dog or cat can be easily and quickly removed from the enclosure in an emergency;

(5) Unless the enclosure is permanently affixed to the conveyance, adequate devices such as handles or handholds are provided on its exterior, and enable the enclosure to be lifted without tilting it, and ensure that anyone handling the enclosure will not come into physical contact with the animal contained inside;

(6) Unless the enclosure is permanently affixed to the conveyance, it is clearly marked on top and on one or more sides with the words "Live Animals," in letters at least 1 inch (2.5 cm.) high, and with arrows or other markings to indicate the correct upright position of the primary enclosure;

(7) Any material, treatment, paint, preservative, or other chemical used in or on the enclosure is nontoxic to the animal and not harmful to the health or well-being of the animal;

(8) Proper ventilation is provided to the animal in accordance with paragraph (c) of this section; and

(9) The primary enclosure has a solid, leak-proof bottom or a removable, leak-proof collection tray under a slatted or wire mesh floor that prevents seepage of waste products, such as excreta and body fluids, outside of the enclosure. If a slatted or wire mesh floor is used in the enclosure, it must be designed and constructed so that the animal cannot put any part of its body between the slats or through the holes in the mesh. Unless the dogs and cats are on raised slatted floors or raised floors made of wire mesh, the primary enclosure must contain enough previously unused litter to absorb and cover excreta. The litter must be of a suitably absorbent material that is safe and nontoxic to the dogs and cats.

(b) *Cleaning of primary enclosures.* A primary enclosure used to hold or transport dogs or cats in commerce must be cleaned and sanitized before each use in accordance with the methods provided in § 3.11(b)(3) of this subpart. If the dogs or cats are in transit for more than 24 hours, the enclosures must be cleaned and any litter replaced, or other methods, such as moving the animals to another enclosure, must be utilized to prevent the soiling of the dogs or cats by body wastes. If it becomes necessary to remove the dog or cat from the enclosure in order to clean, or to move the dog or cat to another enclosure, this procedure must be completed in a way that safeguards the dog or cat from injury and prevents escape.

(c) *Ventilation.* (1) Unless the primary enclosure is permanently affixed to the conveyance, there must be:

(i) Ventilation openings located on two opposing walls of the primary enclosure and the openings must be at least 16 percent of the surface area of each such wall, and the total combined surface area of the ventilation openings must be at least 14 percent of the total combined surface area of all the walls of the primary enclosure; or

(ii) Ventilation openings on three walls of the primary enclosure, and the openings on each of the two opposing walls must be at least 8 percent of the total surface area of the two walls, and the ventilation openings on the third wall of the primary enclosure must be at least 50 percent of the total surface area of that wall, and the total combined surface area of the ventilation openings must be at least 14 percent of the total combined surface area of all the walls of the primary enclosure; or

(iii) Ventilation openings located on all four walls of the primary enclosure and the ventilation openings on each of the four walls must be at least 8 percent of the total surface area of each such wall, and the total combined surface area of the openings must be at least 14 percent of total combined surface area of all the walls of the primary enclosure; and

(iv) At least one-third of the ventilation area must be located on the upper half of the primary enclosure.

(2) Unless the primary enclosure is permanently affixed to the conveyance, projecting rims or similar devices must be located on the exterior of each enclosure wall having a ventilation opening, in order to prevent obstruction of the openings. The projecting rims or similar devices must be large enough to provide a minimum air circulation space of 0.75 in. (1.9 cm) between the primary enclosure and anything the enclosure is placed against.

(3) If a primary enclosure is permanently affixed to the primary conveyance so that there is only a front ventilation opening for the enclosure, the primary enclosure must be affixed to the primary conveyance in such a way that the front ventilation opening cannot be blocked, and the front ventilation opening must open directly to an unobstructed aisle or passageway inside the conveyance. The ventilation opening must be at least 90 percent of the total area of the front wall of the enclosure, and must be covered with bars, wire mesh, or smooth expanded metal having air spaces.

(d) *Compatibility.* (1) Live dogs or cats transported in the same primary enclosure must be of the same species and be maintained in compatible groups, except that dogs and cats that are private pets, are of comparable size, and are compatible, may be transported in the same primary enclosure.

(2) Puppies or kittens 4 months of age or less may not be transported in the same primary enclosure with adult dogs or cats other than their dams.

(3) Dogs or cats that are overly aggressive or exhibit a vicious disposition must be transported individually in a primary enclosure.

(4) Any female dog or cat in heat (estrus) may not be transported in the same primary enclosure with any male dog or cat.

(e) *Space and placement.* (1) Primary enclosures used to transport live dogs and cats must be large enough to ensure that each animal contained in the primary enclosure has enough space to turn about normally while standing, to stand and sit erect, and to lie in a natural position.

(2) Primary enclosures used to transport dogs and cats must be positioned in the primary conveyance so as to provide protection from the elements.

(f) *Transportation by air.* (1) No more than one live dog or cat, 6 months of age or older, may be transported in the same primary enclosure when shipped via air carrier.

(2) No more than one live puppy, 8 weeks to 6 months of age, and weighing over 20 lbs (9 kg), may be transported in a primary enclosure when shipped via air carrier.

(3) No more than two live puppies or kittens, 8 weeks to 6 months of age, that are of comparable size, and weighing 20 lbs (9 kg) or less each, may be transported in the same primary enclosure when shipped via air carrier.

(4) Weaned live puppies or kittens less than 8 weeks of age and of comparable size, or puppies or kittens that are less than 8 weeks of age that are littermates and are accompanied by their dam, may be transported in the same primary enclosure when shipped to research facilities, including Federal research facilities.

(g) *Transportation by surface vehicle or privately owned aircraft.* (1) No more than four live dogs or cats, 8 weeks of age or older, that are of comparable size, may be transported in the same primary enclosure when shipped by surface vehicle (including ground and water

transportation) or privately owned aircraft, and only if all other requirements of this section are met.

(2) Weaned live puppies or kittens less than 8 weeks of age and of comparable size, or puppies or kittens that are less than 8 weeks of age that are littermates and are accompanied by their dam, may be transported in the same primary enclosure when shipped to research facilities, including Federal research facilities, and only if all other requirements in this section are met.

(h) *Accompanying documents and records.* Shipping documents that must accompany shipments of dogs and cats may be held by the operator of the primary conveyance, for surface transportation only, or must be securely attached in a readily accessible manner to the outside of any primary enclosure that is part of the shipment, in a manner that allows them to be detached for examination and securely reattached, such as in a pocket or sleeve. Instructions for administration of drugs, medication, and other special care must be attached to each primary enclosure in a manner that makes them easy to notice, to detach for examination, and to reattach securely. Food and water instructions must be attached in accordance with § 3.13(c).

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§ 3.15 Primary conveyances (motor vehicle, rail, air, and marine).

(a) The animal cargo space of primary conveyances used to transport dogs and cats must be designed, constructed, and maintained in a manner that at all times protects the health and well-being of the animals transported in them, ensures their safety and comfort, and prevents the entry of engine exhaust from the primary conveyance during transportation.

(b) The animal cargo space must have a supply of air that is sufficient for the normal breathing of all the animals being transported in it.

(c) Each primary enclosure containing dogs or cats must be positioned in the animal cargo space in a manner that provides protection from the elements and that allows each dog or cat enough air for normal breathing.

(d) During air transportation, dogs and cats must be held in cargo areas that are heated or cooled as necessary to maintain an ambient temperature that ensures the health and well-being of the dogs or cats. The cargo areas must be pressurized when the primary conveyance used for air transportation is not on the ground, unless flying under 8,000 ft. Dogs and cats must have adequate air for breathing at all times when being transported.

(e) During surface transportation, auxiliary ventilation, such as fans, blowers or air conditioning, must be used in any animal cargo space containing live dogs or cats when the ambient temperature within the animal cargo space reaches 85 °F (29.5 °C). Moreover, the ambient temperature may not exceed 85 °F (29.5 °C) for a period of more than 4 hours; nor fall below 45 °F (7.2 °C) for a period of more than 4 hours.

(f) Primary enclosures must be positioned in the primary conveyance in a manner that allows the dogs and cats to be quickly and easily removed from the primary conveyance in an emergency.

(g) The interior of the animal cargo space must be kept clean.

(h) Live dogs and cats may not be transported with any material, substance (e.g., dry ice) or device in a manner that may reasonably be expected to harm the dogs and cats or cause inhumane conditions.

§ 3.16 Food and water requirements.

(a) Each dog and cat that is 16 weeks of age or more must be offered food at least once every 24 hours. Puppies and kittens less than 16 weeks of age must be offered food at least once every 12 hours. Each dog and cat must be offered potable water at least once every 12 hours. These time periods apply to dealers, exhibitors, research facilities, including Federal research facilities, who transport dogs and cats in their own primary conveyance, starting from the time the dog or cat was last offered food and potable water before transportation was begun. These time periods apply to carriers and intermediate handlers starting from the date and time stated on the certificate provided under § 3.13(c) of this subpart. Each dog and cat must be offered food and potable water within 4 hours before being transported in commerce. Consignors who are subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) must certify that each dog and cat was offered food and potable water within the 4 hours preceding delivery of the dog or cat to a carrier or intermediate handler for transportation in commerce, and must certify the date and time the food and potable water was offered, in accordance with § 3.13(c) of this subpart.

(b) Any dealer, research facility, including a Federal research facility, or exhibitor offering any dog or cat to a carrier or intermediate handler for transportation in commerce must securely attach to the outside of the primary enclosure used for transporting the dog or cat, written instructions for the in-transit food and water requirements for a 24-hour period for the dogs and cats contained in the enclosure. The instructions must be attached in a manner that makes them easily noticed and read.

(c) Food and water receptacles must be securely attached inside the primary enclosure and placed so that the receptacles can be filled from outside the enclosure without opening the door. Food and water containers must be designed, constructed, and installed so that a dog or cat cannot leave the primary enclosure through the food or water opening.

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§ 3.17 Care in transit.

(a) *Surface transportation (ground and water).* Any person subject to the Animal Welfare regulations transporting dogs or cats in commerce must ensure that the operator of the conveyance, or a person accompanying the operator, observes the dogs or cats as often as circumstances allow, but not less than once every 4 hours, to make sure they have sufficient air for normal breathing, that the ambient temperature is within the limits provided in § 3.15(e), and that all applicable standards of this subpart are being complied with. The regulated person must ensure that the operator or person accompanying the operator determines whether any of the dogs or cats are in obvious physical distress and obtains any veterinary care needed for the dogs or cats at the closest available veterinary facility.

(b) *Air transportation.* During air transportation of dogs or cats, it is the responsibility of the carrier to observe the dogs or cats as frequently as circumstances allow, but not less than once every 4 hours if the animal cargo area is accessible during flight. If the animal cargo area is not accessible during flight, the carrier must observe the dogs or cats whenever they are loaded and unloaded and whenever the animal cargo space is otherwise accessible to make sure they have sufficient air for normal breathing, that the animal cargo area meets the heating and cooling requirements of § 3.15(d), and that all other applicable standards of this subpart are being complied with. The carrier must determine whether any of the dogs or cats are in obvious physical distress, and arrange for any needed veterinary care as soon as possible.

(c) If a dog or cat is obviously ill, injured, or in physical distress, it must not be transported in commerce, except to receive veterinary care for the condition.

(d) Except during the cleaning of primary enclosures, as required in § 3.14(b) of this subpart, during transportation in commerce a dog or cat must not be removed from its primary enclosure, unless it is placed in another primary enclosure or facility that meets the requirements of § 3.6 or § 3.14 of this subpart.

(e) The transportation regulations contained in this subpart must be complied with until a consignee takes physical delivery of the dog or cat if the animal is consigned for transportation, or until the animal is returned to the consignor.

§ 3.18 Terminal facilities.

(a) *Placement.* Any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) must not commingle shipments of dogs or cats with inanimate cargo in animal holding areas of terminal facilities.

(b) *Cleaning, sanitization, and pest control.* All animal holding areas of terminal facilities must be cleaned and sanitized in a manner prescribed in § 3.11(b)(3) of this subpart, as often as necessary to prevent an accumulation of debris or excreta and to minimize vermin infestation and disease hazards. Terminal facilities must follow an effective program in all animal holding areas for the control of insects, ectoparasites, and birds and mammals that are pests to dogs and cats.

(c) *Ventilation.* Ventilation must be provided in any animal holding area in a terminal facility containing dogs or cats, by means of windows, doors, vents, or air conditioning. The air must be circulated by fans, blowers, or air conditioning so as to minimize drafts, odors, and moisture condensation. Auxiliary ventilation, such as exhaust fans, vents, fans, blowers, or air conditioning must be used in any animal holding area containing dogs and cats, when the ambient temperature is 85 °F (29.5 °C) or higher

(d) *Temperature.* The ambient temperature in an animal holding area containing dogs or cats must not fall below 45 °F (7.2 °C) or rise above 85 °F (29.5 °C) for more than four consecutive hours at any time dogs or cats are present. The ambient temperature must be measured in the animal holding area by the carrier, intermediate handler, or a person transporting dogs or cats who is subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3), outside any primary enclosure containing a dog or cat at a point not more than 3 feet (0.91 m) away from an outside wall of the primary enclosure, and approximately midway up the side of the enclosure.

(e) *Shelter.* Any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) holding a live dog or cat in an animal holding area of a terminal facility must provide the following:

(1) *Shelter from sunlight and extreme heat.* Shade must be provided that is sufficient to protect the dog or cat from the direct rays of the sun.

(2) *Shelter from rain or snow.* Sufficient protection must be provided to allow the dogs and cats to remain dry during rain, snow, and other precipitation.

(f) *Duration.* The length of time any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) can hold dogs and cats in animal holding areas of terminal facilities upon arrival is the same as that provided in § 3.13(f) of this subpart.

§ 3.19 Handling.

(a) Any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) who moves (including loading and unloading) dogs or cats within, to, or from the animal holding area of a terminal facility or a primary conveyance must do so as quickly and efficiently as possible and must provide the following during movement of the dog or cat:

(1) Shelter from sunlight and extreme heat. Sufficient shade must be provided to protect the dog or cat from the direct rays of the sun The dog or cat must not be exposed to an ambient air temperature above 85 °F (29.5 °C) for a period of more than 45 minutes while being moved to or from a primary conveyance or a terminal facility. The temperature must be measured in the manner provided in § 3.18(d) of this subpart.

(2) *Shelter from rain and snow.* Sufficient protection must be provided to allow the dogs and cats to remain dry during rain, snow, and other precipitation.

(3) *Shelter from cold temperatures.* Transporting devices on which live dogs or cats are placed to move them must be covered to protect the animals when the outdoor temperature falls below 50 °F (10 °C). The dogs or cats must not be exposed to an ambient temperature below 45 °F (7.2 °C) for a period of more than 45 minutes, unless they are accompanied by a certificate of acclimation to lower temperatures as provided in § 3.13(e). The temperature must be measured in the manner provided in § 3.18(d) of this subpart.

(b) Any person handling a primary enclosure containing a dog or cat must use care and must avoid causing physical harm or distress to the dog or cat.

(1) A primary enclosure containing a live dog or cat must not be placed on unattended conveyor belts, or on elevated conveyor belts, such as baggage claim conveyor belts and inclined conveyor ramps that lead to baggage claim areas, at any time; except that a primary enclosure may be placed on inclined conveyor ramps used to load and unload aircraft if an attendant is present at each end of the conveyor belt.

(2) A primary enclosure containing a dog or cat must not be tossed, dropped, or needlessly tilted, and must not be stacked in a manner that may reasonably be expected to result in its falling. It must be handled and positioned in the manner that written instructions and arrows on the outside of the primary enclosure indicate.

(c) This section applies to movement of a dog or cat from primary conveyance to primary conveyance, within a primary conveyance or terminal facility, and to or from a terminal facility or a primary conveyance.

(Approved by the Office of Management and Budget under control number 0579-0093)

3. Subpart D is revised to read as follows:

Subpart D—Specifications for the Humane Handling, Care, Treatment, and Transportation of Nonhuman Primates

Facilities and Operating Standards

Sec.

3.75 Housing facilities, general.
3.76 Indoor housing facilities.
3.77 Sheltered housing facilities.
3.78 Outdoor housing facilities.
3.79 Mobile or traveling housing facilities.
3.80 Primary enclosures.
3.81 Environment enhancement to promote psychological well-being.

Animal Health and Husbandry Standards

3.82 Feeding.
3.83 Watering.
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3.85 Employees.

Transportation Standards

3.86 Consignments to carriers and intermediate handlers.
3.87 Primary enclosurea used to transport nonhuman primates.
3.88 Primary conveyances (motor vehicle, rail, air, and marine).
3.89 Food and water requirements.
3.90 Care in transit.
3.91 Terminal facilities.
3.92 Handling.

Subpart D—Specifications for the Humane Handling, Care, Treatment, and Transportation of Nonhuman Primates [2]

Facilities and Operating Standards

§ 3.75 Housing facilities, general.

(a) *Structure: construction.* Housing facilities for nonhuman primates must be designed and constructed so that they are structurally sound for the species of nonhuman primates housed in them. They must be kept in good repair, and they must protect the animals from injury, contain the animals securely, and restrict other animals from entering.

(b) *Condition and site.* Housing facilities and areas used for storing animal food or bedding must be free of any accumulation of trash, waste material, junk, weeds, and other discarded materials. Animal areas inside of housing facilities must be kept neat and free of clutter, including equipment, furniture, or stored material, but may contain materials actually used and necessary for cleaning the area, and fixtures and equipment necessary for proper husbandry practices and research needs. Housing facilities other than those maintained by research facilities and Federal research facilities must be physically separated from any other businesses. If a housing facility is located on the same premises as any other businesses, it must be physically separated from the other businesses so that animals the size of dogs, skunks, and raccoons, are prevented from entering it.

(c) *Surfaces*—(1) *General requirements.* The surfaces of housing facilities—including perches, shelves, swings, boxes, houses, dens, and other furniture-type fixtures or objects within the facility—must be constructed in a manner and made of materials that allow them to be readily cleaned and sanitized, or removed or replaced when worn or soiled. Furniture-type fixtures or objects must be sturdily constructed and must be strong enough to provide for the safe activity and welfare of nonhuman primates. Floors may be made of dirt, absorbent bedding, sand, gravel, grass, or other similar material that can be readily cleaned, or can be removed or replaced whenever cleaning does not eliminate odors, diseases, pests, insects, or vermin. Any surfaces that come in contact with nonhuman primates must:

(i) Be free of excessive rust that prevents the required cleaning and sanitization, or that affects the structural strength of the surface; and

(ii) Be free of jagged edges or sharp points that might injure the animals.

(2) *Maintenance and replacement of surfaces.* All surfaces must be maintained on a regular basis. Surfaces of housing facilities—including houses, dens, and other furniture-type fixtures and objects within the facility—that cannot be readily cleaned and sanitized, must be replaced when worn or soiled.

(3) *Cleaning.* Hard surfaces with which nonhuman primates come in contact must be spot-cleaned daily and sanitized in accordance with § 3.84 of this subpart to prevent accumulation of excreta or disease hazards. If the species scent mark, the surfaces must be sanitized or replaced at regular intervals as determined by the attending veterinarian in accordance with generally accepted professional and husbandry practices. Floors made of dirt, absorbent bedding, sand, gravel, grass, or other similar material, and planted enclosures must be raked or spot-cleaned with sufficient frequency to ensure all animals the freedom to avoid contact with excreta. Contaminated material must be removed or replaced whenever raking and spot cleaning does not eliminate odors, diseases, insects, pests, or vermin infestation. All other surfaces of housing facilities must be cleaned and sanitized when necessary to satisfy generally accepted husbandry standards and practices. Sanitization may be done by any of the methods provided in § 3.84(b)(3) of this subpart for primary enclosures.

(d) *Water and electric power.* The housing facility must have reliable electric power adequate for heating, cooling, ventilation, and lighting, and for carrying out other husbandry requirements in accordance with the regulations in this subpart. The housing facility must provide running potable water for the nonhuman primates' drinking needs. It must be adequate for cleaning and for carrying out other husbandry requirements.

(e) *Storage.* Supplies of food and bedding must be stored in a manner that protects the supplies from spoilage, contamination, and vermin infestation. The supplies must be stored off the floor and away from the walls, to allow cleaning underneath and around the supplies. Food requiring refrigeration must be stored accordingly, and all food must be stored in a manner that prevents contamination and deterioration of its nutritive value. Only the food and bedding currently being used may be kept in animal areas, and when not in actual use, open food and bedding supplies must be kept in leakproof containers with tightly fitting lids to prevent spoilage and contamination. Substances that are toxic to the nonhuman primates but that are required for normal husbandry practices must not be stored in food storage and preparation areas, but may be stored in cabinets in the animal areas.

(f) *Drainage and waste disposal.* Housing facility operators must provide for regular and frequent collection, removal, and disposal of animal and food wastes, bedding, dead animals, debris, garbage, water, and any other fluids and wastes, in a manner that minimizes contamination and disease risk. Housing facilities must be equipped with disposal facilities and drainage systems that are constructed and operated so that animal wastes and water are rapidly eliminated and the animals stay dry. Disposal and drainage systems must minimize vermin and pest infestation, insects, odors, and disease hazards. All drains must be properly constructed, installed, and maintained. If closed drainage systems are used, they must be equipped with traps and prevent the backflow of gases and the backup of sewage onto the floor. If the facility uses sump ponds, settlement ponds, or other similar systems for drainage and animal waste disposal, the system must be located far enough away from the animal area of the housing facility to prevent odors, diseases, insects, pests, and vermin infestation. If drip or constant flow watering devices are used to provide water to the animals, excess water must be rapidly drained out of the animal areas by gutters or pipes so that the animals stay dry. Standing puddles of water in animal areas must be mopped up or drained so that the animals remain dry. Trash containers in housing facilities and in food storage and food preparation areas must be leakproof and must have tightly fitted lids on them at all times. Dead animals, animal parts, and animal waste must not be kept in food storage or food

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[2] Nonhuman primates include a great diversity of forms, ranging from the marmoset weighing only a few ounces, to the adult gorilla weighing hundreds of pounds, and include more than 240 species. They come from Asia, Africa, and Central and South America, and they live in different habitats in nature. Some have been transported to the United States from their natural habitats and some have been raised in captivity in the United States. Their nutritional and activity requirements differ, as do their social and environmental requirements. As a result, the conditions appropriate for one species do not necessarily apply to another. Accordingly, these minimum specifications must be applied in accordance with the customary and generally accepted professional and husbandry practices considered appropriate for each species, and necessary to promote their psychological well-being.

These minimum standards apply only to live nonhuman primates, unless stated otherwise.

preparation areas, food freezers, food refrigerators, and animal areas.

(g) *Washrooms and sinks.* Washing facilities, such as washrooms, basins, sinks, or showers must be provided for animal caretakers and must be readily accessible.

§ 3.76 Indoor housing facilities.

(a) *Heating, cooling, and temperature.* Indoor housing facilities must be sufficiently heated and cooled when necessary to protect nonhuman primates from temperature extremes and to provide for their health and well-being. The ambient temperature in the facility must not fall below 45 °F (7.2 °C) for more than 4 consecutive hours when nonhuman primates are present, and must not rise above 85 °F (29.5 °C) for more than 4 consecutive hours when nonhuman primates are present. The ambient temperature must be maintained at a level that ensures the health and well-being of the species housed, as directed by the attending veterinarian, in accordance with generally accepted professional and husbandry practices.

(b) *Ventilation.* Indoor housing facilities must be sufficiently ventilated at all times when nonhuman primates are present to provide for their health and well-being and to minimize odors, drafts, ammonia levels, and moisture condensation. Ventilation must be provided by windows, doors, vents, fans, or air conditioning. Auxiliary ventilation, such as fans, blowers, or air conditioning, must be provided when the ambient temperature is 85 °F (29.5 °C) or higher. The relative humidity maintained must be at a level that ensures the health and well-being of the animals housed, as directed by the attending veterinarian, in accordance with generally accepted professional and husbandry practices.

(c) *Lighting.* Indoor housing facilities must be lighted well enough to permit routine inspection and cleaning of the facility, and observation of the nonhuman primates. Animal areas must be provided a regular diurnal lighting cycle of either natural or artificial light. Lighting must be uniformly diffused throughout animal facilities and provide sufficient illumination to aid in maintaining good housekeeping practices, adequate cleaning, adequate inspection of animals, and for the well-being of the animals. Primary enclosures must be placed in the housing facility so as to protect the nonhuman primates from excessive light.

§ 3.77 Sheltered housing facilities

(a) *Heating, cooling, and temperature.* The sheltered part of sheltered housing facilities must be sufficiently heated and cooled when necessary to protect the nonhuman primates from temperature extremes, and to provide for their health and well-being. The ambient temperature in the sheltered part of the facility must not fall below 45 °F (7.2 °C) for more than 4 consecutive hours when nonhuman primates are present, and must not rise above 85 °F (29.5 °C) for more than 4 consecutive hours when nonhuman primates are present, unless temperatures above 85 °F (29.5 °C) are approved by the attending veterinarian, in accordance with generally accepted husbandry practices. The ambient temperature must be maintained at a level that ensures the health and well-being of the species housed, as directed by the attending veterinarian, in accordance with generally accepted professional and husbandry practices.

(b) *Ventilation.* The sheltered part of sheltered animal facilities must be sufficiently ventilated at all times to provide for the health and well-being of nonhuman primates and to minimize odors, drafts, ammonia levels, and moisture condensation. Ventilation must be provided by windows, doors, vents, fans, or air conditioning. Auxiliary ventilation, such as fans, blowers, or air conditioning, must be provided when the ambient temperature is 85 °F (29.5 °C) or higher. The relative humidity maintained must be at a level that ensures the health and well-being of the species housed, as directed by the attending veterinarian, in accordance with generally accepted professional and husbandry practices.

(c) *Lighting.* The sheltered part of sheltered housing facilities must be lighted well enough to permit routine inspection and cleaning of the facility, and observation of the nonhuman primates. Animal areas must be provided a regular diurnal lighting cycle of either natural or artificial light. Lighting must be uniformly diffused throughout animal facilities and provide sufficient illumination to aid in maintaining good housekeeping practices, adequate cleaning, adequate inspection of animals, and for the well-being of the animals. Primary enclosures must be placed in the housing facility so as to protect the nonhuman primates from excessive light.

(d) *Shelter from the elements.* Sheltered housing facilities for nonhuman primates must provide adequate shelter from the elements at all times. They must provide protection from the sun, rain, snow, wind, and cold, and from any weather conditions that may occur.

(e) *Capacity: multiple shelters.* Both the sheltered part of sheltered housing facilities and any other necessary shelter from the elements must be sufficiently large to provide protection comfortably to each nonhuman primate housed in the facility. If aggressive or dominant animals are housed in the facility with other animals, there must be multiple shelters or other means to ensure that each nonhuman primate has access to shelter.

(f) *Perimeter fence.* On and after February 15, 1994, the outdoor area of a sheltered housing facility must be enclosed by a fence that is of sufficient height to keep unwanted species out. Fences less than 6 feet high must be approved by the Administrator. The fence must be constructed so that it protects nonhuman primates by restricting unauthorized humans, and animals the size of dogs, skunks, and raccoons from going through it or under it and having contact with the nonhuman primates. It must be of sufficient distance from the outside wall or fence of the primary enclosure to prevent physical contact between animals inside the enclosure and outside the perimeter fence. Such fences less than 3 feet in distance from the primary enclosure must be approved by the Administrator. A perimeter fence is not required if:

(1) The outside walls of the primary enclosure are made of a sturdy, durable material such as concrete, wood, plastic, metal, or glass, and are high enough and constructed in a manner that restricts contact with or entry by humans and animals that are outside the sheltered housing facility; or

(2) The housing facility is surrounded by a natural barrier that restricts the nonhuman primates to the housing facility and protects them from contact with unauthorized humans and animals that are outside the sheltered housing facility, and the Administrator gives written permission

(g) *Public barriers.* Fixed public exhibits housing nonhuman primates, such as zoos, must have a barrier between the primary enclosure and the public at any time the public is present, that restricts physical contact between the public and the nonhuman primates. Nonhuman primates used in trained animal acts or in uncaged public exhibits must be under the direct control and supervision of an experienced handler or trainer at all times when the public is present. Trained nonhuman primates may be permitted physical contact with the public, as allowed under § 2.131, but only if they are under the direct control and supervision of an experienced handler or trainer at all times during the contact.

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§ 3.78 Outdoor housing facilities

(a) *Acclimation.* Only nonhuman primates that are acclimated, as determined by the attending veterinarian, to the prevailing temperature and humidity at the outdoor housing facility during the time of year they are at the facility, and that can tolerate the range of temperatures and climatic conditions known to occur at the facility at that time of year without stress or discomfort, may be kept in outdoor facilities.

(b) *Shelter from the elements.* Outdoor housing facilities for nonhuman primates must provide adequate shelter from the elements at all times. It must provide protection from the sun, rain, snow, wind, and cold, and from any weather conditions that may occur. The shelter must safely provide heat to the nonhuman primates to prevent the ambient temperature from falling below 45 °F (7.2 °C), except as directed by the attending veterinarian and in accordance with generally accepted professional and husbandry practices.

(c) *Capacity: multiple shelters.* The shelter must be sufficiently large to comfortably provide protection for each nonhuman primate housed in the facility. If aggressive or dominant animals are housed in the facility with other animals there must be multiple shelters, or other means to ensure protection for each nonhuman primate housed in the facility.

(d) *Perimeter fence.* On and after February 15, 1994, an outdoor housing facility must be enclosed by a fence that is of sufficient height to keep unwanted species out. Fences less than 6 feet high must be approved by the Administrator. The fence must be constructed so that it protects nonhuman primates by restricting unauthorized humans, and animals the size of dogs, skunks, and raccoons from going through it or under it and having contact with the nonhuman primates. It must be of sufficient distance from the outside wall or fence of the primary enclosure to prevent physical contact between animals inside the enclosure and outside the perimeter fence. Such fences less than 3 feet in distance from the primary enclosure must be approved by the Administrator. A perimeter fence is not required if:

(1) The outside walls of the primary enclosure are made of a sturdy, durable material such as concrete, wood, plastic, metal, or glass, and are high enough and constructed in a manner that restricts contact with or entry by humans and animals that are outside the housing facility; or

(2) The housing facility is surrounded by a natural barrier that restricts the nonhuman primates to the housing facility and protects them from contact with unauthorized humans and animals that are outside the housing facility, and the Administrator gives written permission.

(e) *Public barriers.* Fixed public exhibits housing nonhuman primates, such as zoos, must have a barrier between the primary enclosure and the public at any time the public is present, in order to restrict physical contact between the public and the nonhuman primates. Nonhuman primates used in trained animal acts or in uncaged public exhibits must be under the direct control and supervision of an experienced handler or trainer at all times when the public is present. Trained nonhuman primates may be allowed physical contact with the public, but only if they are under the direct control and supervision of an experienced handler or trainer at all times during the contact.

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§ 3.79 Mobile or traveling house facilities

(a) *Heating, cooling, and temperature.* Mobile or traveling housing facilities must be sufficiently heated and cooled when necessary to protect nonhuman primates from temperature extremes and to provide for their health and well-being. The ambient temperature in the traveling housing facility must not fall below 45 °F (7.2 °C) for more than 4 consecutive hours when nonhuman primates are present, and must not rise above 85 °F (29.5 °C) for more than 4 consecutive hours when nonhuman primates are present. The ambient temperature must be maintained at a level that ensures the health and well-being of the species housed, as directed by the attending veterinarian, and in accordance with generally accepted professional and husbandry practices.

(b) *Ventilation.* Traveling housing facilities must be sufficiently ventilated at all times when nonhuman primates are present to provide for the health and well-being of nonhuman primates and to minimize odors, drafts, ammonia levels, moisture condensation, and exhaust fumes. Ventilation must be provided by means of windows, doors, vents, fans, or air conditioning. Auxiliary ventilation, such as fans, blowers, or air conditioning, must be provided when the ambient temperature in the traveling housing facility is 85 °F (29.5 °C) or higher.

(c) *Lighting.* Mobile or traveling housing facilities must be lighted well enough to permit routine inspection and cleaning of the facility, and observation of the nonhuman primates. Animal areas must be provided a regular diurnal lighting cycle of either natural or artificial light. Lighting must be uniformly diffused throughout animal facilities and provide sufficient illumination to aid in maintaining good housekeeping practices, adequate cleaning, adequate inspection of animals, and for the well-being of the animals. Primary enclosures must be placed in the housing facility so as to protect the nonhuman primates from excessive light.

(d) *Public barriers.* There must be a barrier between a mobile or traveling housing facility and the public at any time the public is present, in order to restrict physical contact between the nonhuman primates and the public. Nonhuman primates used in traveling exhibits, trained animal acts, or in uncaged public exhibits must be under the direct control and supervision of an experienced handler or trainer at all times when the public is present. Trained nonhuman primates may be allowed physical contact with the public, but only if they are under the direct control and supervision of an experienced handler or trainer at all times during the contact.

§ 3.80 Primary enclosures.

Primary enclosures for nonhuman primates must meet the following minimum requirements:

(a) *General requirements.* (1) Primary enclosures must be designed and constructed of suitable materials so that they are structurally sound for the species of nonhuman primates contained in them. They must be kept in good repair.

(2) Primary enclosures must be constructed and maintained so that they:

(i) Have no sharp points or edges that could injure the nonhuman primates;

(ii) Protect the nonhuman primates from injury;

(iii) Contain the nonhuman primates securely and prevent accidental opening of the enclosure, including opening by the animal;

(iv) Keep other unwanted animals from entering the enclosure or having physical contact with the nonhuman primates;

(v) Enable the nonhuman primates to remain dry and clean;

(vi) Provide shelter and protection from extreme temperatures and weather conditions that may be uncomfortable or hazardous to the species of nonhuman primate contained;

(vii) Provide sufficient shade to shelter all the nonhuman primates housed in the primary enclosure at one time;

(viii) Provide the nonhuman primates with easy and convenient access to clean food and water;

(ix) Enable all surfaces in contact with nonhuman primates to be readily cleaned and sanitized in accordance with § 3.84(b)(3) of this subpart, or replaced when worn or soiled;

(x) Have floors that are constructed in a manner that protects the nonhuman primates from injuring themselves; and

(xi) Provide sufficient space for the nonhuman primates to make normal postural adjustments with freedom of movement.

(b) *Minimum space requirements.* Primary enclosures must meet the minimum space requirements provided in this subpart. These minimum space requirements must be met even if perches, ledges, swings, or other suspended fixtures are placed in the enclosure. Low perches and ledges that do not allow the space underneath them to be comfortably occupied by the animal will be counted as part of the floor space.

(1) Prior to February 15, 1994:

(i) Primary enclosures must be constructed and maintained so as to provide sufficient space to allow each nonhuman primate to make normal postural adjustments with adequate freedom of movement; and

(ii) Each nonhuman primate housed in a primary enclosure must be provided with a minimum floor space equal to an area at least three times the area occupied by the primate when standing on four feet.

(2) On and after February 15, 1994:

(i) The minimum space that must be provided to *each* nonhuman primate, whether housed individually or with other nonhuman primates, will be determined by the typical weight of animals of its species, except for brachiating species and great apes.[3] and will be calculated by using the following table: [4]

Group	Weight		Floor area/animal		Height	
	lbs.	(kg.)	ft.²	(m²)	in.	(cm.)
1	under 2.2	(under 1)	1.6	(0.15)	20	(50.8)
2	2.2–6.6	(1–3)	3.0	(0.28)	30	(76.2)
3	6.6–22.0	(3–10)	4.3	(0.40)	30	(76.2)
4	22.0–33.0	(10–15)	6.0	(0.56)	32	(81.28)
5	33.0–55.0	(15–25)	8.0	(0.74)	36	(91.44)
6	over 55.0	(over 25)	25.1	(2.33)	84	(213.36)

(ii) Dealers. exhibitors, and research facilities, including Federal research facilities, must provide great apes weighing over 110 lbs. (50 kg) an additional volume of space in excess of that required for Group 6 animals as set forth in paragraph (b)(2)(i) of this section, to allow for normal postural adjustments.

(iii) In the case of research facilities, any exemption from these standards must be required by a research proposal or in the judgment of the attending veterinarian and must be approved by the Committee. In the case of dealers and exhibitors, any exemption from these standards must be required in the judgment of the attending veterinarian and approved by the Administrator.

(iv) When more than one nonhuman primate is housed in a primary enclosure, the minimum space requirement for the enclosure is the sum of the minimum floor area space required for each individual nonhuman primate in the table in paragraph (b)(2)(i) of this section, and the minimum height requirement for the largest nonhuman primate housed in the enclosure. Provided however, that mothers with infants less than 6 months of age may be maintained together in primary enclosures that meet the floor area space and height requirements of the mother.

(c) Innovative primary enclosures not precisely meeting the floor area and height requirements provided in paragraphs (b)(1) and (b)(2) of this section, but that do provide nonhuman primates with a sufficient volume of space and the opportunity to express species-typical behavior, may be used at research facilities when approved by the Committee, and by dealers and exhibitors when approved by the Administrator.

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§ 3.81 Environment enhancement to promote psychological well-being.

Dealers, exhibitors, and research facilities must develop, document, and follow an appropriate plan for environment enhancement adequate to promote the psychological well-being of nonhuman primates. The plan must be in accordance with the currently accepted professional standards as cited in appropriate professional journals or reference guides, and as directed by the attending veterinarian. This plan must be made available to APHIS upon request, and, in the case of research facilities, to officials of any pertinent funding agency. The plan, at a minimum, must address each of the following:

(a) *Social grouping.* The environment enhancement plan must include specific provisions to address the social needs of nonhuman primates of species known to exist in social groups in nature. Such specific provisions must be in accordance with currently accepted

[3] The different species of nonhuman primates are divided into six weight groups for determining minimum space requirements, except that all brachiating species of any weight are grouped together since they require additional space to engage in species-typical behavior. The grouping provided is based upon the typical weight for various species and not on changes associated with obesity, aging, or pregnancy. These conditions will not be considered in determining a nonhuman primate's weight group unless the animal is obviously unable to make normal postural adjustments and movements within the primary enclosure. Different species of prosimians vary in weight and should be grouped with their appropriate weight group. They have not been included in the weight table since different species typically fall into different weight groups. Infants and juveniles of certain species are substantially lower in weight than adults of those species and require the minimum space requirements of lighter weight species, unless the animal is obviously unable to make normal postural adjustments and movements within the primary enclosure.

[4] Examples of the kinds of nonhuman primates typically included in each age group are:

Group 1—marmosets, tamarins, and infants (less than 6 months of age) of various species.

Group 2—capuchins, squirrel monkeys and similar size species, and juveniles (6 months to 3 years of age) of various species.

Group 3—macaques and African species.

Group 4—male macaques and large African species.

Group 5—baboons and nonbrachiating species larger than 33.0 lbs. (15 kg.).

Group 6—great apes over 55.0 lbs. (25 kg.), except as provided in paragraph (b)(2)(ii) of this section and brachiating species.

professional standards, as cited in appropriate professional journals or reference guides, and as directed by the attending veterinarian. The plan may provide for the following exceptions:

(1) If a nonhuman primate exhibits vicious or overly aggressive behavior, or is debilitated as a result of age or other conditions (e.g., arthritis), it should be housed separately;

(2) Nonhuman primates that have or are suspected of having a contagious disease must be isolated from healthy animals in the colony as directed by the attending veterinarian. When an entire group or room of nonhuman primates 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.

(3) Nonhuman primates may not be housed with other species of primates or animals unless they are compatible, do not prevent access to food, water, or shelter by individual animals, and are not known to be hazardous to the health and well-being of each other. Compatibility of nonhuman primates must be determined in accordance with generally accepted professional practices and actual observations, as directed by the attending veterinarian, to ensure that the nonhuman primates are in fact compatible. Individually housed nonhuman primates must be able to see and hear nonhuman primates of their own or compatible species unless the attending veterinarian determines that it would endanger their health, safety, or well-being.

(b) *Environmental enrichment.* The physical environment in the primary enclosures must be enriched by providing means of expressing noninjurious species-typical activities. Species differences should be considered when determining the type or methods of enrichment. Examples of environmental enrichments include providing perches, swings, mirrors, and other increased cage complexities; providing objects to manipulate; varied food items; using foraging or task-oriented feeding methods; and providing interaction with the care giver or other familiar and knowledgeable person consistent with personnel safety precautions.

(c) *Special considerations.* Certain nonhuman primates must be provided special attention regarding enhancement of their environment, based on the needs of the individual species and in accordance with the instructions of the attending veterinarian. Nonhuman primates requiring special attention are the following:

(1) Infants and young juveniles;

(2) Those that show signs of being in psychological distress through behavior or appearance;

(3) Those used in research for which the Committee-approved protocol requires restricted activity;

(4) Individually housed nonhuman primates that are unable to see and hear nonhuman primates of their own or compatible species; and

(5) Great apes weighing over 110 lbs. (50 kg). Dealers, exhibitors, and research facilities must include in the environment enhancement plan special provisions for great apes weighing over 110 lbs. (50 kg), including additional opportunities to express species-typical behavior.

(d) *Restraint devices.* Nonhuman primates must not be maintained in restraint devices unless required for health reasons as determined by the attending veterinarian or by a research proposal approved by the Committee at research facilities. Maintenance under such restraint must be for the shortest period possible. In instances where long-term (more than 12 hours) restraint is required, the nonhuman primate must be provided the opportunity daily for unrestrained activity for at least one continuous hour during the period of restraint, unless continuous restraint is required by the research proposal approved by the Committee at research facilities.

(e) *Exemptions.* (1) The attending veterinarian may exempt an individual nonhuman primate from participation in the environment enhancement plan because of its health or condition, or in consideration of its well-being. The basis of the exemption must be recorded by the attending veterinarian for each exempted nonhuman primate. Unless the basis for the exemption is a permanent condition, the exemption must be reviewed at least every 30 days by the attending veterinarian.

(2) For a research facility, the Committee may exempt an individual nonhuman primate from participation in some or all of the otherwise required environment enhancement plans for scientific reasons set forth in the research proposal. The basis of the exemption shall be documented in the approved proposal and must be reviewed at appropriate intervals as determined by the Committee, but not less than annually.

(3) Records of any exemptions must be maintained by the dealer, exhibitor, or research facility and must be made available to USDA officials or officials of any pertinent funding Federal agency upon request.

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Animal Health and Husbandry Standards

§ 3.82 Feeding.

(a) The diet for nonhuman primates must be appropriate for the species, size, age, and condition of the animal, and for the conditions in which the nonhuman primate is maintained, according to generally accepted professional and husbandry practices and nutritional standards. The food must be clean, wholesome, and palatable to the animals. It must be of sufficient quantity and have sufficient nutritive value to maintain a healthful condition and weight range of the animal and to meet its normal daily nutritional requirements.

(b) Nonhuman primates must be fed at least once each day except as otherwise might be required to provide adequate veterinary care. Infant and juvenile nonhuman primates must be fed as often as necessary in accordance with generally accepted professional and husbandry practices and nutritional standards, based upon the animals' age and condition.

(c) Food and food receptacles, if used, must be readily accessible to all the nonhuman primates being fed. If members of dominant nonhuman primate or other species are fed together with other nonhuman primates, multiple feeding sites must be provided. The animals must be observed to determine that all receive a sufficient quantity of food.

(d) Food and food receptacles, if used, must be located so as to minimize any risk of contamination by excreta and pests. Food receptacles must be kept clean and must be sanitized in accordance with the procedures listed in § 3.84(b)(3) of this subpart at least once every 2 weeks. Used food receptacles must be sanitized before they can be used to provide food to a different nonhuman primate or social grouping of nonhuman primates. Measures must be taken to ensure there is no molding, deterioration, contamination, or caking or wetting of food placed in self-feeders.

§ 3.83 Watering.

Potable water must be provided in sufficient quantity to every nonhuman primate housed at the facility. If potable water is not continually available to the nonhuman primates, it must be offered to them as often as necessary to ensure their health and well-being, but no less than twice daily for at least 1 hour each time, unless otherwise required by the attending veterinarian, or as required by

the research proposal approved by the Committee at research facilities. Water receptacles must be kept clean and sanitized in accordance with methods provided in § 3.84(b)(3) of this subpart at least once every 2 weeks or as often as necessary to keep them clean and free from contamination. Used water receptacles must be sanitized before they can be used to provide water to a different nonhuman primate or social grouping of nonhuman primates.

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§ 3.84 Cleaning, sanitization, housekeeping, and pest control.

(a) *Cleaning of primary enclosures.* Excreta and food waste must be removed from inside each indoor primary enclosure daily and from underneath them as often as necessary to prevent an excessive accumulation of feces and food waste, to prevent the nonhuman primates from becoming soiled, and to reduce disease hazards, insects, pests, and odors. Dirt floors, floors with absorbent bedding, and planted areas in primary enclosures must be spot-cleaned with sufficient frequency to ensure all animals the freedom to avoid contact with excreta, or as often as necessary to reduce disease hazards, insects, pests, and odors. When steam or water is used to clean the primary enclosure, whether by hosing, flushing, or other methods, nonhuman primates must be removed, unless the enclosure is large enough to ensure the animals will not be harmed, wetted, or distressed in the process. Perches, bars, and shelves must be kept clean and replaced when worn. If the species of the nonhuman primates housed in the primary enclosure engages in scent marking, hard surfaces in the primary enclosure must be spot-cleaned daily.

(b) *Sanitization of primary enclosures and food and water receptacles.*

(1) A used primary enclosure must be sanitized in accordance with this section before it can be used to house another nonhuman primate or group of nonhuman primates.

(2) Indoor primary enclosures must be sanitized at least once every 2 weeks and as often as necessary to prevent an excessive accumulation of dirt, debris, waste, food waste, excreta, or disease hazard, using one of the methods prescribed in paragraph (b)(3) of this section. However, if the species of nonhuman primates housed in the primary enclosure engages in scent marking, the primary enclosure must be sanitized at regular intervals determined in accordance with generally accepted professional and husbandry practices.

(3) Hard surfaces of primary enclosures and food and water receptacles must be sanitized using one of the following methods:

(i) Live steam under pressure;

(ii) Washing with hot water (at least 180 °F (82.2 °C)) and soap or detergent, such as in a mechanical cage washer;

(iii) Washing all soiled surfaces with appropriate detergent solutions or disinfectants, or by using a combination detergent/disinfectant product that accomplishes the same purpose, with a thorough cleaning of the surfaces to remove organic material, so as to remove all organic material and mineral buildup, and to provide sanitization followed by a clean water rinse.

(4) Primary enclosures containing material that cannot be sanitized using the methods provided in paragraph (b)(3) of this section, such as sand, gravel, dirt, absorbent bedding, grass, or planted areas, must be sanitized by removing the contaminated material as necessary to prevent odors, diseases, pests, insects, and vermin infestation.

(c) *Housekeeping for premises.* Premises where housing facilities are located, including buildings and surrounding grounds, must be kept clean and in good repair in order to protect the nonhuman primates from injury, to facilitate the husbandry practices required in this subpart, and to reduce or eliminate breeding and living areas for rodents, pests, and vermin. Premises must be kept free of accumulations of trash, junk, waste, and discarded matter. Weeds, grass, and bushes must be controlled so as to facilitate cleaning of the premises and pest control.

(d) *Pest control.* An effective program for control of insects, external parasites affecting nonhuman primates, and birds and mammals that are pests, must be established and maintained so as to promote the health and well-being of the animals and reduce contamination by pests in animal areas.

§ 3.85 Employees.

Every person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) maintaining nonhuman primates must have enough employees to carry out the level of husbandry practices and care required in this subpart. The employees who provide husbandry practices and care, or handle nonhuman primates, must be trained and supervised by an individual who has the knowledge, background, and experience in proper husbandry and care of nonhuman primates to supervise others. The employer must be certain that the supervisor can perform to these standards.

Transportation Standards

§ 3.86 Consignments to carriers and intermediate handlers.

(a) Carriers and intermediate handlers must not accept a nonhuman primate for transport in commerce more than 4 hours before the scheduled departure time of the primary conveyance on which the animal is to be transported. However, a carrier or intermediate handler may agree with anyone consigning a nonhuman primate to extend this time by up to 2 hours.

(b) Carriers and intermediate handlers must not accept a nonhuman primate for transport in commerce unless they are provided with the name, address, telephone number, and telex number, if applicable, of the consignee.

(c) Carriers and intermediate handlers must not accept a nonhuman primate for transport in commerce unless the consignor certifies in writing to the carrier or intermediate handler that the nonhuman primate was offered food and water during the 4 hours before delivery to the carrier or intermediate handler. The certification must be securely attached to the outside of the primary enclosure in a manner that makes it easily noticed and read. Instructions for no food or water are not acceptable unless directed by the attending veterinarian. Instructions must be in compliance with § 3.89 of this subpart. The certification must include the following information for each nonhuman primate:

(1) The consignor's name and address;

(2) The species of nonhuman primate;

(3) The time and date the animal was last fed and watered and the specific instructions for the next feeding(s) and watering(s) for a 24-hour period; and

(4) The consignor's signature and the date and time the certification was signed.

(d) Carriers and intermediate handlers must not accept a nonhuman primate for transport in commerce unless the primary enclosure meets the requirements of § 3.87 of this subpart. A carrier or intermediate handler must not accept a nonhuman primate for transport if the primary enclosure is obviously defective or damaged and cannot reasonably be expected to safely and comfortably contain the nonhuman primate without suffering or injury.

(e) Carriers and intermediate handlers must not accept a nonhuman primate for transport in commerce unless their animal holding area facilities meet the minimum temperature requirements provided in §§ 3.91 and 3.92 of this subpart, or unless the consignor provides them with a certificate signed

by a veterinarian and dated no more than 10 days before delivery of the animal to the carrier or intermediate handler for transport in commerce, certifying that the animal is acclimated to temperatures lower than those that are required in §§ 3.91 and 3.92 of this subpart. Even if the carrier or intermediate handler receives this certification, the temperatures the nonhuman primate is exposed to while in the carrier's or intermediate handler's custody must not be lower than the minimum temperature specified by the veterinarian in accordance with paragraph (e)(4) of this section, and must be reasonably within the generally and professionally accepted temperature range for the nonhuman primate, as determined by the veterinarian, considering its age, condition, and species. A copy of the certification must accompany the nonhuman primate to its destination and must include the following information for each primary enclosure:

(1) The consignor's name and address;

(2) The number of nonhuman primates contained in the primary enclosure;

(3) The species of nonhuman primate contained in the primary enclosure;

(4) A statement by a veterinarian that to the best of his or her knowledge, each of the nonhuman primates contained in the primary enclosure is acclimated to air temperatures lower than 50 °F (10 °C), but not lower than a minimum temperature specified on the certificate based on the generally and professionally accepted temperature range for the nonhuman primate, considering its age, condition, and species; and

(5) The veterinarian's signature and the date the certification was signed.

(f) When a primary enclosure containing a nonhuman primate has arrived at the animal holding area of a terminal facility after transport, the carrier or intermediate handler must attempt to notify the consignee upon arrival and at least once in every 6-hour period after arrival. The time, date, and method of all attempted notifications and the actual notification of the consignee, and the name of the person who notifies or attempts to notify the consignee must be written either on the carrier's or intermediate handler's copy of the shipping document or on the copy that accompanies the primary enclosure. If the consignee cannot be notified within 24 hours after the nonhuman primate has arrived at the terminal facility, the carrier or intermediate handler must return the animal to the consignor or to whomever the consignor designates. If the consignee is notified of the arrival and does not take physical delivery of the nonhuman primate within 48 hours after arrival of the nonhuman primate, the carrier or intermediate handler must return the animal to the consignor or to whomever the consignor designates. The carrier or intermediate handler must continue to provide proper care, feeding, and housing to the nonhuman primate, and maintain the nonhuman primate in accordance with generally accepted professional and husbandry practices until the consignee accepts delivery of the nonhuman primate or until it is returned to the consignor or to whomever the consignor designates. The carrier or intermediate handler must obligate the consignor to reimburse the carrier or intermediate handler for the cost of return transportation and care.

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§ 3.87 Primary enclosures used to transport nonhuman primates.

Any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) must not transport or deliver for transport in commerce a nonhuman primate unless it is contained in a primary enclosure, such as a compartment, transport cage, carton, or crate, and the following requirements are met:

(a) *Construction of primary enclosures.* Primary enclosures used to transport nonhuman primates may be connected or attached to each other and must be constructed so that:

(1) The primary enclosure is strong enough to contain the nonhuman primate securely and comfortably and to withstand the normal rigors of transportation;

(2) The interior of the enclosure has no sharp points or edges and no protrusions that could injure the animal contained in it;

(3) The nonhuman primate is at all times securely contained within the enclosure and cannot put any part of its body outside the enclosure in a way that could result in injury to the animal, or to persons or animals nearby;

(4) The nonhuman primate can be easily and quickly removed from the enclosure in an emergency;

(5) The doors or other closures that provide access into the enclosure are secured with animal-proof devices that prevent accidental opening of the enclosure, including opening by the nonhuman primate;

(6) Unless the enclosure is permanently affixed to the conveyance, adequate devices such as handles or handholds are provided on its exterior, and enable the enclosure to be lifted without tilting it, and ensure that anyone handling the enclosure will not come into physical contact with the animal contained inside;

(7) Any material, treatment, paint, preservative, or other chemical used in or on the enclosure is nontoxic to the animal and not harmful to the health or well-being of the animal;

(8) Proper ventilation is provided to the nonhuman primate in accordance with paragraph (c) of this section;

(9) Ventilation openings are covered with bars, wire mesh, or smooth expanded metal having air spaces; and

(10) The primary enclosure has a solid, leak-proof bottom, or a removable, leak-proof collection tray under a slatted or wire mesh floor that prevents seepage of waste products, such as excreta and body fluids, outside of the enclosure. If a slatted or wire mesh floor is used in the enclosure, it must be designed and constructed so that the animal cannot put any part of its body between the slats or through the holes in the mesh. It must contain enough previously unused litter to absorb and cover excreta. The litter must be of a suitably absorbent material that is safe and nontoxic to the nonhuman primate and is appropriate for the species transported in the primary enclosure.

(b) *Cleaning of primary enclosures.* A primary enclosure used to hold or transport nonhuman primates in commerce must be cleaned and sanitized before each use in accordance with the methods provided in § 3.84(b)(3) of this subpart.

(c) *Ventilation.* (1) If the primary enclosure is movable, ventilation openings must be constructed in one of the following ways:

(i) If ventilation openings are located on two opposite walls of the primary enclosure, the openings on each wall must be at least 16 percent of the total surface area of each such wall and be located above the midline of the enclosure; or

(ii) If ventilation openings are located on all four walls of the primary enclosure, the openings on every wall must be at least 8 percent of the total surface area of each such wall and be located above the midline of the enclosure.

(2) Unless the primary enclosure is permanently affixed to the conveyance, projecting rims or similar devices must be located on the exterior of each enclosure wall having a ventilation opening, in order to prevent obstruction of the openings. The projecting rims or similar devices must be large enough to provide a minimum air circulation space of 0.75 inches (1.9 centimeters) between

the primary enclosure and anything the enclosure is placed against.

(3) If a primary enclosure is permanently affixed to the primary conveyance so that there is only a front ventilation opening for the enclosure, the primary enclosure must be affixed to the primary conveyance in such a way that the front ventilation opening cannot be blocked, and the front ventilation opening must open directly to an unobstructed aisle or passageway inside of the conveyance. The ventilation opening must be at least 90 percent of the total area of the front wall of the enclosure, and must be covered with bars, wire mesh, or smooth expanded metal having air spaces.

(d) *Compatibility.* (1) Only one live nonhuman primate may be transported in a primary enclosure, except as follows:

(i) A mother and her nursing infant may be transported together;

(ii) An established male-female pair or family group may be transported together, except that a female in estrus must not be transported with a male nonhuman primate;

(iii) A compatible pair of juveniles of the same species that have not reached puberty may be transported together.

(2) Nonhuman primates of different species must not be transported in adjacent or connecting primary enclosures.

(e) *Space requirements.* Primary enclosures used to transport nonhuman primates must be large enough so that each animal contained in the primary enclosure has enough space to turn around freely in a normal manner and to sit in an upright, hands down position without its head touching the top of the enclosure. However, certain larger species may be restricted in their movements, in accordance with professionally accepted standards of care, when greater freedom of movement would be dangerous to the animal, its handler, or to other persons.

(f) *Marking and labeling.* Primary enclosures, other than those that are permanently affixed to a conveyance, must be clearly marked in English on the top and on one or more sides with the words "Wild Animals," or "Live Animals," in letters at least 1 inch (2.5 cm.) high, and with arrows or other markings to indicate the correct upright position of the primary enclosure. Permanently affixed primary enclosures must be clearly marked in English with the words "Wild Animals" or "Live Animals," in the same manner.

(g) *Accompanying documents and records.* Shipping documents that must accompany shipments of nonhuman primates may be held by the operator of the primary conveyance, for surface transportation only, or must be securely attached in a readily accessible manner to the outside of any primary enclosure that is part of the shipment, in a manner that allows them to be detached for examination and securely reattached, such as in a pocket or sleeve. Instructions for administration of drugs, medication, and other special care must be attached to each primary enclosure in a manner that makes them easy to notice, to detach for examination, and to reattach securely. Food and water instructions must be attached in accordance with § 3.86(c) of this subpart.

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§ 3.88 Primary conveyances (motor vehicle, rail, air, and marine).

(a) The animal cargo space of primary conveyances used to transport nonhuman primates must be designed, constructed, and maintained in a manner that at all times protects the health and well-being of the animals transported in it, ensures their safety and comfort, and prevents the entry of engine exhaust from the primary conveyance during transportation.

(b) The animal cargo space must have a supply of air that is sufficient for the normal breathing of all the animals being transported in it.

(c) Each primary enclosure containing nonhuman primates must be positioned in the animal cargo space in a manner that provides protection from the elements and that allows each nonhuman primate enough air for normal breathing.

(d) During air transportation, the ambient temperature inside a primary conveyance used to transport nonhuman primates must be maintained at a level that ensures the health and well-being of the species housed, in accordance with generally accepted professional and husbandry practices, at all times a nonhuman primate is present.

(e) During surface transportation, the ambient temperature inside a primary conveyance used to transport nonhuman primates must be maintained between 45 °F (7.2 °C) and 85 °F (30 °C) at all times a nonhuman primate is present.

(f) A primary enclosure containing a nonhuman primate must be placed far enough away from animals that are predators or natural enemies of nonhuman primates, whether the other animals are in primary enclosures or not, so that the nonhuman primate cannot touch or see the other animals.

(g) Primary enclosures must be positioned in the primary conveyance in a manner that allows the nonhuman primates to be quickly and easily removed from the primary conveyance in an emergency.

(h) The interior of the animal cargo space must be kept clean

(i) Nonhuman primates must not be transported with any material, substance (e.g., dry ice), or device in a manner that may reasonably be expected to harm the nonhuman primates or cause inhumane conditions.

§ 3.89 Food and water requirements.

(a) Each nonhuman primate that is 1 year of age or more must be offered food [5] at least once every 24 hours. Each nonhuman primate that is less than 1 year of age must be offered food at least once every 12 hours. Each nonhuman primate must be offered potable water at least once every 12 hours. These time periods apply to dealers, exhibitors, and research facilities, including Federal research facilities, who transport nonhuman primates in their own primary conveyances, starting from the time the nonhuman primate was last offered food and potable water before transportation was begun. These time periods apply to carriers and intermediate handlers starting from the date and time stated on the certification provided under § 3.86(c) of this subpart Each nonhuman primate must be offered food and potable water within 4 hours before being transported in commerce. Consignors who are subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) must certify that each nonhuman primate was offered food and potable water within the 4 hours preceding delivery of the nonhuman primate to a carrier or intermediate handler for transportation in commerce, and must certify the date and time the food and potable water was offered, in accordance with § 3.86(c) of this subpart.

(b) Any dealer, exhibitor, or research facility, including a Federal research facility, offering a nonhuman primate to a carrier or intermediate handler for transportation in commerce must securely attach to the outside of the primary enclosure used for transporting the nonhuman primate, written instructions for a 24-hour period for the in-transit food and water requirements of the nonhuman primate(s) contained in the enclosure. The instructions must be attached in a manner that makes them easily noticed and read.

[5] Proper food for purposes of this section is described in § 3.82 of this subpart, with the necessities and circumstances of the mode of travel taken into account.

(c) Food and water receptacles must be securely attached inside the primary enclosure and placed so that the receptacles can be filled from outside of the enclosure without opening the door. Food and water receptacles must be designed, constructed, and installed so that a nonhuman primate cannot leave the primary enclosure through the food or water opening.

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§ 3.90 Care in transit.

(a) *Surface transportation (ground and water).* Any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) transporting nonhuman primates in commerce must ensure that the operator of the conveyance or a person accompanying the operator of the conveyance observes the nonhuman primates as often as circumstances allow, but not less than once every 4 hours, to make sure that they have sufficient air for normal breathing, that the ambient temperature is within the limits provided in § 3.88(d) of this subpart, and that all other applicable standards of this subpart are being complied with. The regulated person transporting the nonhuman primates must ensure that the operator or the person accompanying the operator determines whether any of the nonhuman primates are in obvious physical distress, and obtains any veterinary care needed for the nonhuman primates at the closest available veterinary facility.

(b) *Air transportation.* During air transportation of nonhuman primates, it is the responsibility of the carrier to observe the nonhuman primates as frequently as circumstances allow, but not less than once every 4 hours if the animal cargo area is accessible during flight. If the animal cargo area is not accessible during flight, the carrier must observe the nonhuman primates whenever they are loaded and unloaded and whenever the animal cargo space is otherwise accessible to make sure that the nonhuman primates have sufficient air for normal breathing, that the ambient temperature is within the limits provided in § 3.88(d) of this subpart, and that all other applicable standards of this subpart are being complied with. The carrier must determine whether any of the nonhuman primates is in obvious physical distress, and arrange for any needed veterinary care for the nonhuman primates as soon as possible.

(c) If a nonhuman primate is obviously ill, injured, or in physical distress, it must not be transported in commerce, except to receive veterinary care for the condition.

(d) During transportation in commerce, a nonhuman primate must not be removed from its primary enclosure unless it is placed in another primary enclosure or a facility that meets the requirements of § 3.80 or § 3.87 of this subpart. Only persons who are experienced and authorized by the shipper, or authorized by the consignor or the consignee upon delivery, if the animal is consigned for transportation, may remove nonhuman primates from their primary enclosure during transportation in commerce, unless required for the health or well-being of the animal.

(e) The transportation regulations contained in this subpart must be complied with until a consignee takes physical delivery of the animal if the animal is consigned for transportation, or until the animal is returned to the consignor.

§ 3.91 Terminal facilities.

(a) *Placement.* Any persons subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) must not commingle shipments of nonhuman primates with inanimate cargo or with other animals in animal holding areas of terminal facilities. Nonhuman primates must not be placed near any other animals, including other species of nonhuman primates, and must not be able to touch or see any other animals, including other species of nonhuman primates.

(b) *Cleaning, sanitization, and pest control.* All animal holding areas of terminal facilities must be cleaned and sanitized in a manner prescribed in § 3.84(b)(3) of this subpart, as often as necessary to prevent an accumulation of debris or excreta and to minimize vermin infestation and disease hazards. Terminal facilities must follow an effective program in all animal holding areas for the control of insects, ectoparasites, and birds and mammals that are pests of nonhuman primates.

(c) *Ventilation.* Ventilation must be provided in any animal holding area in a terminal facility containing nonhuman primates by means of windows, doors, vents, or air conditioning. The air must be circulated by fans, blowers, or air conditioning so as to minimize drafts, odors, and moisture condensation. Auxiliary ventilation, such as exhaust fans, vents, fans, blowers, or air conditioning, must be used in any animal holding area containing nonhuman primates when the ambient temperature is 85 °F (29.5 °C) or higher.

(d) *Temperature.* The ambient temperature in an animal holding area containing nonhuman primates must not fall below 45 °F (7.2 °C) or rise above 85 °F (29.5 °C) for more than four consecutive hours at any time nonhuman primates are present. The ambient temperature must be measured in the animal holding area by the carrier, intermediate handler, or a person transporting nonhuman primates who is subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3), outside any primary enclosure containing a nonhuman primate at a point not more than 3 feet (0.91 m.) away from an outside wall of the primary enclosure, on a level that is even with the enclosure and approximately midway up the side of the enclosure.

(e) *Shelter.* Any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) holding a nonhuman primate in an animal holding area of a terminal facility must provide the following:

(1) *Shelter from sunlight and extreme heat.* Shade must be provided that is sufficient to protect the nonhuman primate from the direct rays of the sun.

(2) *Shelter from rain or snow.* Sufficient protection must be provided to allow nonhuman primates to remain dry during rain, snow, and other precipitation.

(f) *Duration.* The length of time any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) can hold a nonhuman primate in an animal holding area of a terminal facility upon arrival is the same as that provided in § 3.86(f) of this subpart.

§ 3.92 Handling.

(a) Any person subject to the Animal Welfare regulations (9 CFR parts 1, 2, and 3) who moves (including loading and unloading) nonhuman primates within, to, or from the animal holding area of a terminal facility or a primary conveyance must do so as quickly and efficiently as possible, and must provide the following during movement of the nonhuman primate:

(1) *Shelter from sunlight and extreme heat.* Sufficient shade must be provided to protect the nonhuman primate from the direct rays of the sun. A nonhuman primate must not be exposed to an ambient temperature above 85 °F (29.5 °C) for a period of more than 45 minutes while being moved to or from a primary conveyance or a terminal facility. The ambient temperature must be measured in the manner provided in § 3.91(d) of this subpart.

(2) *Shelter from rain or snow.* Sufficient protection must be provided to allow nonhuman primates to remain dry during rain, snow, and other precipitation.

(3) *Shelter from cold temperatures.* Transporting devices on which nonhuman primates are placed to move them must be covered to protect the animals when the outdoor temperature falls below 45 °F (7.2 °C). A nonhuman primate must not be exposed to an ambient air temperature below 45 °F (7.2 °C) for a period of more than 45 minutes, unless it is accompanied by a certificate of acclimation to lower temperatures as provided in § 3.86(e) of this subpart. The ambient temperature must be measured in the manner provided in § 3.91(d) of this subpart.

(b) Any person handling a primary enclosure containing a nonhuman primate must use care and must avoid causing physical harm or distress to the nonhuman primate.

(1) A primary enclosure containing a nonhuman primate must not be placed on unattended conveyor belts or on elevated conveyor belts, such as baggage claim conveyor belts and inclined conveyor ramps that lead to baggage claim areas, at any time; except that a primary enclosure may be placed on inclined conveyor ramps used to load and unload aircraft if an attendant is present at each end of the conveyor belt.

(2) A primary enclosure containing a nonhuman primate must not be tossed, dropped, or needlessly tilted, and must not be stacked in a manner that may reasonably be expected to result in its falling. It must be handled and positioned in the manner that written instructions and arrows on the outside of the primary enclosure indicate.

(c) This section applies to movement of a nonhuman primate from primary conveyance to primary conveyance, within a primary conveyance or terminal facility, and to or from a terminal facility or a primary conveyance.

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Done in Washington, DC, this 6th day of February 1991.

James W. Glosser,

Administrator, Animal and Plant Health Inspection Service.

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Forest Service

36 CFR Part 219

National Forest System Land and Resource Management Planning; Advance Notice of Proposed Rulemaking

DEPARTMENT OF AGRICULTURE

Forest Service

36 CFR Part 219

National Forest System Land and Resource Management Planning

RIN 0596-AA50

AGENCY: Forest Service, USDA.
ACTION: Advance notice of proposed rulemaking.

SUMMARY: The Forest Service has been engaged in a comprehensive review and evaluation of the National Forest System Land and Resource Management Planning regulation at 36 CFR part 219, subpart A. Based largely on review of published reports resulting from the "Critique of Land Management Planning" as well as other sources of information, the agency has concluded that a new rule at 36 CFR part 219, subpart B, is needed in order to focus more specifically on implementation, amendment, and revision of forest plans; the relationship between forest planning and project decisionmaking; and to make various other changes intended to simplify the planning process and respond to ideas identified during the regulatory review. Accordingly, the agency is issuing an Advance Notice of Proposed Rulemaking to solicit comments on the agency's preliminary regulatory text. Public comment is invited and will be considered in formulating a proposed rule.

DATES: Comments must be received in writing by May 16, 1991.

Four informational meetings will be held to provide the public an opportunity to ask questions about this Advance Notice of Proposed Rulemaking and to provide a forum for discussion among interested members of the public. The meetings are scheduled as follows:

1. February 26, 1991, 9 a.m. to 4 p.m., Washington, DC.
2. April 8, 1991, 9 a.m. to 4 p.m., Portland, Oregon.
3. April 10, 1991, 9 a.m. to 4 p.m., Denver, Colorado.
4. April 12, 1991, 9 a.m. to 4 p.m., Atlanta, Georgia.

ADDRESSES: Send written comments to F. Dale Robertson, Chief (1920), Forest Service, USDA, P.O. Box 96090, Washington, DC 20090-6090. The public may inspect comments received on this Advance Notice of Proposed Rulemaking in the Office of the Director, Land Management Planning, Third Floor, Central Wing, Auditor's Building, 14th and Independence Avenue, SW, Washington, DC between the hours of 8:30 a.m. and 4 p.m. Those wishing to inspect comments are encouraged to call ahead (202-447-5933) to facilitate entry into the building.

The four informational meetings will be held at the following locations:

1. Washington, DC—Rosslyn Westpark Hotel, 1900 North Fort Myer Drive, Arlington, Virginia, 22209.
2. Portland, Oregon—World Trade Center, 25 SW., Salmon, Portland, Oregon, 97204.
3. Denver, Colorado—Lakewood Sheraton, 360 Union Boulevard, Lakewood, Colorado, 80228.
4. Atlanta, Georgia—Lenox Inn, 3387 Lenox Road NE., Atlanta, Georgia, 30326.

FOR FURTHER INFORMATION CONTACT: Larry Larson, Assistant Director, Land Management Planning; Ann Christensen, Land Management Planning Specialist; or Joyce Parker, Program Analyst; 202-447-5933.

SUPPLEMENTARY INFORMATION:

Introduction

The agency's preliminary proposal is to issue a regulation at 36 CFR part 219, subpart B entitled, "Implementing and Changing Land and Resource Management Plans." This regulation would replace all aspects of the existing regulation except for direction on the development of initial forest plans. Direction for development of initial forest plans would continue to be set forth in 36 CFR part 219, subpart A.

Maintenance of subpart A is necessary because eight out of 123 forest plans remain uncompleted. These are plans for the Stanislaus, Modac, Lassen, Shasta-Trinity, Sierra, Mendocino, Six Rivers, and Klamath National Forests. All of these forests are located in the Pacific Southwest Region (Region 5). It is the agency's intent to have these eight forests complete their forest plans under the requirements for forest plan development currently described by the existing regulation. As these eight plans are completed and approved under the existing regulation, they would become subject to the implementation requirements and other direction that would be contained in a new subpart B.

The preliminary proposal for a regulation at 36 CFR part 219 subpart B, "Implementing and Changing Land and Resource Management Plans," represents the agency's initial response to many of the recommendations of the Critique of Land Management Planning and other findings of the regulatory review. Due to widespread public interest in the planning regulation and the scope of the changes being considered, the agency is issuing this preliminary regulatory text as an Advance Notice of Proposed Rulemaking (hereafter, referred to as the Notice). The preliminary regulatory text, which is referred to by such terms as "Subpart B" or the "proposal" at various places in this Notice, should not be confused with a proposed rule. The regulatory text is intended to assist in generating meaningful public discussion and comment prior to developing a proposed rule. After consideration of public response to this Notice, the agency will issue a proposed rule for public comment. After consideration of the public comments on the proposed rule, a final rule will be issued. The proposed rule is tentatively scheduled to be issued in October 1991, with a final rule issued in March 1992.

During development of this Advance Notice of Proposed Rulemaking, the agency recognized that forest planning regulations are inherently complex and that every effort should be made to assist reviewers in understanding the ideas being offered. Accordingly, the preamble material which follows contains the most thorough explanation available of the preliminary regulatory text. In addition, the agency has developed a detailed index to quickly guide reviewers to the location of specific topics of interest in the preliminary regulatory text. This index is set out at the end of this Notice. The agency has also scheduled a series of meetings across the country to assist the public in understanding the ideas presented in this Notice and to provide an informal public forum for discussing them. Statements for the record will not be received during any of these meetings. Information regarding these meetings is given in the **"DATES"** and **"ADDRESSES"** sections earlier in this Notice.

In studying and considering this preliminary proposal, reviewers are encouraged to consider the extent to which forest planning, the public, and the agency have changed since the existing regulation was adopted in 1982. Unlike a decade ago, forest plans are currently in place and being implemented on almost all National Forests; several years worth of monitoring and evaluation information is available; and there has been a tremendous increase in the understanding and sophistication of both the public and the agency with regard to forest planning. Recognition of the evolution of forest planning is central to this preliminary proposal.

Subpart B would be a "next generation" regulation designed to adapt the forest planning process to changing

needs and circumstances. Although there is a natural inclination to compare it to the existing regulation, this should be done with care. There are fundamental changes reflected in the preliminary regulatory text which must be understood lest a quick comparison be misleading. Reviewers are also encouraged to carefully study the section on "Streamlining the Regulatory Text" and the section-by-section preamble discussion for § 219.40 in order to understand structural changes which may be initially confusing for some reviewers.

Finally, reviewers will notice a variety of ideas designed to simplify the forest planning process and the regulatory text itself. The concept of simplification is a recurring theme expressed in many different ways. While recognizing that forest planning is inherently a complex task, the agency is firmly committed to trying to make it more understandable and efficient. The agency hopes that reviewer's comments will help in finding the proper balance between providing an efficient, understandable process and achieving an appropriate degree of procedural requirements.

Background

The Forest Service is responsible for managing the land and resources of the National Forest System which includes 191 million acres of lands in 42 States, the Virgin Islands and Puerto Rico. The National Forest system is organized into nine Regional Offices; 155 National Forests; 19 National Grasslands, and 640 Ranger districts. The System is headed by the chief of the Forest Service. Under the Multiple-Use Sustained Yield Act of 1960 (916 U.S.C. 528, *et seq.*) and the National Forest Management Act of 1976 (16 U.S.C. *et seq.*), these lands are managed for a variety of uses on a sustained basis to ensure a continued supply of goods and services to the American people in perpetuity.

The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) (88 Stat. 476 *et seq.*), as amended by the National Forest Management Act of 1976 (NFMA), (90 Stat. 2949 *et seq*; 16 USC 1601–1614), specifies that land and resource management plans shall be developed for units of the National Forest System. Regulations to implement the National Forest Management Act are set forth at 36 CFR part 219.

Of the 123 land and resource management plans (hereafter referred to as forest plans) to be completed, 114 are final and are being implemented. Of these, 65 have been cleared of all administrative appeals.

During the 14 years since enactment of the NFMA, much has been learned about planning for management of National Forest System lands. The original vision of NFMA raised many varied expectations, some of which have been realized and some of which remain unfulfilled. While there appears to be general concensus that the NFMA planning process is basically sound, there is considerable evidence that improvements are needed in various procedural aspects of implementing the statute.

Although forest planning efforts to date have produced notable accomplishments in addressing forest management issues and fostering public participation in public land management, it is apparent that many controversies linger or remain unabated. Even though procedural improvements can enhance various aspects of the planning process, there remain fundamental disagreements within our society about management of National Forest lands. The issues surrounding National Forest System management require that difficult choices be made where there are no universally accepted answers. In this high stakes and emotion-filled arena, forest planning cannot be expected to resolve all differences. This is not necessarily a reflection of the inadequacy of forest planning, but rather an indication of the importance the American people place on the National Forest System and its reources.

History of Forest Service Planning Process

The current forest planning regulation (36 CFR part 219) is an extension of historic Forest Service land management planning experiences. Since its inception, the Forest Service has prepared land and resource use plans to guide inventories, identify special management areas, calculate sustainable use levels, and monitor resource conditions and trends. These planning procedures have evolved over the years in response to increasing demands for forest resources, statutory developments, and the changing desires and expectations of the American public.

Early Forest Service planning efforts generally focused on individual resources such as wildlife, recreation, timber, range, and other uses. This simple and functional approach to planning was acceptable during a period when demand for the resources of the National Forests was relatively low and the various uses seldom conflicted.

During the 1950's and 1960's, demand for National Forest resources increased rapidly. In response to these increasing demands, and with the enactment of the Multiple-Use Sustained-Yield Act of 1960, the Forest Service modified its general planning procedures and began to prepare what were known as Multiple Use Plans for each Ranger District. These plans attempted to improve the coordination of resource uses and to minimize perceived conflicts between uses. Multiple Use Plans classified sub-areas of each Ranger District with different management emphases and attempted to integrate resource uses in a manner compatible with the management emphasis of each sub-area. Concurrent with these efforts to improve the coordination of resource uses, demand for National Forest resources continued to grow and, as a result, management of National Forest resources became more complex.

In 1973, the Forest Service initiated a more structured, heirarchial system of land management planning. This heirarchy began with broad agency-wide objectives established by the Chief of the Forest Service. In addition, each of the nine administrative Regions of the Forest Service prepared Area Guides for large sub-parts of the Region. The Area Guides estimated the mix of resource outputs expected from each area. The foundation of the heirarchy was Unit Plans prepared for sub-areas of each Ranger District. Unit Plans, like Multiple Use Plans, delineated lands with different management emphases and prescribed permissible activities. Unit Plans presented the first opportunity to incorporate into the land management planning process the environmental analysis and public participation requirements of the National Environmental Policy Act of 1969 (NEPA).

The unit planning process was never completed because of the enactment of the Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974, as subsequently amended by the National Forest Management Act (NFMA) of 1976. Building on existing Forest Service planning practices, the RPA and NFMA established comprehensive statutory guidance for National Forest System land and resource management planning.

The RPA requires that the Forest Service prepare every 10 years an Assessment describing the current and expected demand for forest and rangeland resources and the Nation's potential to meet those demands. The Assessment provides the basis for development of "The Forest Service Program for Forest and Rangeland Resources" prepared every 5 years, to guide Forest Service activities. The Forest Service completed Assessments

in 1979 and 1989, and issued Programs in 1976, 1980, 1985, and 1990.

The RPA also established the first statutory requirement for the development of land and resource management plans. However, the RPA did not provide guidance on the development of these plans, other than directing that a systematic interdisciplinary process be used to achieve integrated consideration of physical, biological, economic, and other sciences.

The NFMA amended the RPA to provide the detailed statutory guidance for the preparation of forest plans. Generally, the NFMA requires that each forest plan provide, in a single set of documents, the overall guidelines and direction for the management of the applicable National Forest for a period up to 15 years. The central theme of the NFMA's planning provisions, Section 6, is that planning must be based on the integrated consideration of the multiple uses defined in the Multiple-Use Sustained Yield Act of 1960. Each forest plan must include coordination of outdoor recreation, range, timber, watershed, wildlife and fish habitat, and wilderness. Forest management activities, timber harvest levels, and management procedures must be determined in the light of all the multiple-uses (16 U.S.C. 1604(e)). Section 6 further promotes the integrated consideration of multiple-use management by requiring that the Forest Service provide for and foster public participation in the planning process (16 U.S.C. 1604(d)).

The Secretary of Agriculture adopted the first planning regulation on September 17, 1979 (44 FR 53928). In response to the Presidential Task Force on Regulatory Relief to streamline the regulatory process and to adopt regulations that promote management efficiency and maximize net public benefits, the Secretary published a proposed revised planning regulation on February 22, 1982 (47 FR 7678). A total of 2,020 comments were received on the proposed regulation. On September 30, 1982, the final revision to 36 CFR Part 219 was adopted (47 FR 43026).

The regulation was later revised to respond to a court ruling that the environmental statement on which the 1979 roadless area decisions were based did not adequately meet the National Environmental Policy Act requirements (*California* v. *Block*, 690 F.2d. 753, 9th Cir. 1982). The revision to 36 CFR 219.17, Wilderness designation, was published September 7, 1983 (48 FR 40383) to provide direction that roadless areas would be evaluated in forest plans.

Overview of Existing NFMA Planning Regulation

The existing planning regulation sets forth the purpose of National Forest System land and resource management planning and the principles under which forest plans are to be developed and maintained. The existing regulation emphasizes an interdisciplinary approach with public involvement and opportunity to comment. The existing regulation also provides a process for development and maintenance of regional guides and forest plans. In addition, it establishes requirements for integrating individual forest resources into the planning process. The existing regulation also acknowledges compliance with other laws, such as the Endangered Species Act, Clean Water Act, National Historic Preservation Act, and the Archaeological Resources Protection Act. Finally, the existing regulation sets forth requirements to ensure consistency of future decisions with forest plans; for monitoring and evaluation of forest plan implementation; and for amending and revising forest plans.

The existing regulation establishes a 3-level planning process, where information and management objectives are exchanged between national, regional, and forest levels. At the national level, the existing regulation acknowledges that the Forest Service prepare an RPA Assessment and an RPA Program. The RPA Assessment is an analysis of present and anticipated demand and supply of renewable resources of all forest and range lands in the country. Based upon the Assessment, the RPA Program presents broad, national goals for the management of these resources on National Forests.

At the regional level, regional guides are prepared for each of the nine administrative Regions of the Forest Service. The guides established regional standards and guidelines for identifying certain timber harvest practices, designated travel corridors, identified sources of air pollution, and regional monitoring and evaluation procedures.

The existing regulation requires that regional guides reflect the goals and objectives of the RPA Program to the extent consistent with the resource capabilities of the Region and requires the guides to display tentative resource objectives for each Forest based on the RPA Program. Regional guides also provide for general coordination of National Forest System, State and Private Forestry, and Research programs. The existing regulation specifies procedures to ensure interdisciplinary analysis, public participation, coordination with other governmental planning efforts during preparation of regional guides and forest plans, and environmental analysis and documentation. The majority of the existing regulation prescribes detailed and complex procedures for developing, amending, and revising forest plans. Under the existing regulation, forest plans must be revised at least every 15 years using the same procedures as required for the original development and approval of a forest plan.

A forest plan may be amended at any time. When amending a forest plan, the Forest Supervisor must determine whether the amendment will result in a "significant change" in the plan. If so, the existing regulation requires that the Forest Supervisor follow the same procedures as required for the development and approval of the original forest plan. If the amendment is determined not to be significant for the purposes of the planning process, the Forest Supervisor may implement the amendment after appropriate public notice and completion of appropriate NEPA documents.

The existing regulation establishes extensive analytical and procedural requirements for the development, revision, and significant amendment of forest plans. These requirements include: inventory data and information collection; identification of the minimum level of management that would be needed to maintain and protect the planning area as part of the National Forest System; calculation of the maximum physical and biological production potentials of multiple-use resources; calculation of the mix of resource outputs that provide the maximum present net value of those resources having an established market value or are assigned a monetary value; and projection of demand for resources with both price and nonprice information.

The existing regulation further prescribes procedures for the formulation and evaluation of alternatives. The regulation requires that alternatives consider a full range of resource outputs and expenditure levels. These alternatives must be designed to facilitate evaluation of opportunity costs, resource trade-offs, present net value, and benefits and costs. In addition to an assessment of the environmental consequences required by NEPA, the existing regulation requires an evaluation of the effects of the alternatives on: the expected outputs of market and nonmarket goods and services; the relationship of expected

outputs to the RPA Program objectives; the expected financial costs; the expected financial value of the resource outputs; total receipts to the Federal government; direct economic benefits to users; receipt shares to local governments; local income; local employment; and changes in present net value. The existing regulation requires that the evaluation of alternatives consider the significant physical, biological, economic, and social effects of each alternative, and a comparison of present net value, outputs of goods and services, and overall protection and enhancement of environmental resources.

The general planning procedures of the existing regulation provide that each forest plan shall establish a monitoring and evaluation program satisfying specific requirements of the regulation. Under the existing regulation, all of the procedures apply not only to forest plan development but to revision and significant amendment as well.

In addition to these general planning procedures, the existing regulation establishes requirements for integrating individual resource planning into the development, revision, and significant amendment of forest plans. Currently, there are 13 separate sections of the existing regulation which address: timber resource land suitability; vegetation management practices; timber resource sale schedule; evaluation of roadless areas; wilderness management; fish and wildlife resources; grazing resources; recreation resources; mineral resources; water and soil resources; cultural and historic resources; research natural areas; and diversity. Each of these sections provides detailed procedural requirements and in some cases substantive standards that must be incorporated into the development, revision, and significant amendment of forest plans.

Section 219.27 of the existing regulation sets forth the minimum specific management requirements to be met in accomplishing goals and objectives for the National Forest System. It provides additional standards for resource protection; vegetative manipulation; silvicultural practices; even-aged timber management; riparian areas; soil and water conservation; and diversity. Finally, the existing regulation requires that forest plans identify research needs for management of the National Forest System.

Implementation of the existing regulation has resulted in development of the most comprehensive land management plans in the history of the Forest Service. The development of 123 forest plans has served as the focus for unprecedented public involvement in Forest Service decisionmaking. It is estimated that over one million people have commented on forest plans. The planning process resulting from the existing regulation has greatly improved the integrated consideration of the multiple uses defined by the Multiple-Use Sustained-Yield Act. However, the experience of developing these plans has demonstrated that there is substantial room for improvement in the way the Forest Service conducts land management planning consistent with the NFMA.

Critique of Land Management Planning

The Forest Service initiated a comprehensive review of its land management planning process in March 1989. Conducted with the help of The Conservation Foundation, the Department of Forestry and Natural Resources at Purdue University, and others, the purpose of the Critique was to document what had been learned since passage of the National Forest Management Act and to determine how best to respond to the planning challenges of the future.

The Critique involved over 3,500 people both within and outside the Forest Service. Workshops and interviews were conducted involving over 2,000 people who had participated in or had responsibilities for forest planning. These participants represented a broad cross-section of all those who were involved in planning, including members of the general public, interest groups, representatives of other agencies, elected officials, representatives of Indian tribal governments, Forest Supervisors, Regional Foresters, resource specialists, and members of interdisciplinary planning teams. Additionally, there were written comments received from 1,500 interested people.

The Critique was completed in May 1990. The results of the Critique are documented in a summary report, "Synthesis of the Critique of Land Management Planning" (Vol. 1) and 10 other more detailed reports. Except as listed below, the reports were developed by teams of Forest Service personnel, often with the assistance of representatives of other agencies or academia. In addition to the primary authors listed below, team members included representatives of Colorado State University, the Bureau of Land Management, the Nebraska Forest Service, and the USDA Office of Budget and Program Analysis. A complete listing of contributors to each of the 11 reports is included in the Synthesis Report (Vol. 1—p. 24). The reports include:

Volume 1, "Synthesis of the Critique of Land Management Planning" (Forest Service and The Conservation Foundation).

Volume 2, "National Forest Planning: Searching for a Common Vision" (The Conservation Foundation and Purdue University).

Volume 3, "Organization and Administration".

Volume 4, "Analytical Tools and Information".

Volume 5, "Public Participation".

Volume 6, "Effectiveness of Planning Coordination".

Volume 7, "Effectiveness of Decisonmaking".

Volume 8, "Usefulness of Forest Plans".

Volume 9, "Analysis of Emerging Timber Supply Disruption".

Volume 10, "Forest Plan Implementation: Gateway to Compliance with NFMA, NEPA, and Other Federal Environmental Laws"—U.S. Department of Agriculture, Office of General Counsel (Michael J. Gippert and Vincent L. Dewitte).

Volume 11, "National Forest Planning Under RPA/NFMA: What Needs Fixing?"—University of California (Dennis E. Teeguarden).

The findings of the Critique identified that adjustments are needed in the following areas:

—Citizens', lawmakers', and the agency's expectations of planning.
—The agency's attitude toward and conduct of public involvement.
—How the agency conducts planning.
—Simplification and clarification of planning procedures.
—Implementation of plans, particularly to ensure that they are followed and used.
—Connections between appropriations and forest plans.

Seven major recommendations were developed from 232 detailed recommendations as follows:

1. *Simplify, clarify, and shorten the planning process.*

—Reduce and clarify planning regulations and direction.
—Provide for incremental forest plan revision.
—Provide maximum responsibility and authority permitted by law to local resource managers.

2. *Ensure high quality planning.*

—Inform and involve affected and interested publics early and continuously.
—Ensure clarity and consistency in planning direction.

—Increase commitment to planning among line officers.
—Enhance and improve our analytical tools and procedures.
—Match analytical tools to the questions at hand.

3. *Improve the organizational and administrative infrastructure for planning.*

—Review the organizational structure to identify where changes are needed to further promote integrated resources management.
—Institutionalize planning as a profession in the Forest Service.
—Ensure that the agency has skilled people for all the various planning jobs.
—Provide for greater research support to planning and the National Forest System.

4. *Strengthen and clarify the ties between forest plans and programming, budgeting, and appropriation activities.*

—Describe the relationships between forest plans and programming, budgeting, and appropriation activities.
—Reduce "line item" budgeting and adopt end-results budgeting Servicewide.
—Refine the system that links forest plans to program development and budgeting processes.

5. *Define, clarify, and explain the RPA, NFMA, and NEPA processes, and explain how they fit with the agency's framework for multi-level planning, decisionmaking, and management.*

—Educate agency employees, citizens, and cooperators about the planning process and how the pieces fit together.
—Provide in-Service training for line officers and staff on analytical methods and procedures in planning.

6. *Develop a comprehensive strategy and clearly assign responsibilities for implementation and maintenance of forest plans.*

—Develop a strategy for revising forest plans.
—Improve methods for monitoring and maintaining forest plans.

7. *Refurbish the mechanisms for quality control, management review, and forest plan monitoring.*

—Use forest plans as the standard for measuring both individual and organizational performance.
—Disseminate the results of quality control and management reviews and the decisions from appeals and litigations.

A discussion of the Critique's results is found throughout this preamble. Readers are encouraged to review the Critique's reports in order to more fully understand the background and context from which the preliminary regulatory text in this Advance Notice of Proposed Rulemaking emerges. Copies of these reports may be obtained from the Policy Analysis Staff (1970), Forest Service, USDA, P.O. Box 96090, Washington, DC 20090–6090 (202–447–2775).

Other Sources of Information for Review of Current Rules

The Critique, its findings, and recommendations have provided a firm foundation for the regulatory review of 36 CFR part 219. However, there are additional sources of information available for use by the agency in assessing the adequacy of the existing regulation. For example, the extensive experience gained by Forest Service personnel was utilized. This includes the results of land management plan administrative appeals and litigation. The agency also considered various professional publications on the planning process, as well as on-going efforts related to the planning process, such as the Keystone Policy Dialogue which addressed biological diversity on Federal lands. In addition, the agency has the benefit of testimony presented in October of 1989 during Oversight Hearings of the Committee on Agriculture, Nutrition, and Forestry, and the Committee on Energy and Natural Resources, U.S. Senate.

Findings of the Regulatory Review

Based on the findings of the Critique, agency experience, and other sources of information as described above, the agency has reached the following conclusions relevant to the planning process:

1. The National Forest Management Act is basically sound. Neither the Critique nor review of agency experience under the existing regulation reveals any need to revise the authorizing statute. NFMA itself is basically sound legislation. The basic principles of NFMA, such as integrated resource planning, public participation, and an interdisciplinary approach continue to provide a solid foundation for agency planning efforts. The Act provides sufficient flexibility to address needed improvements through revision of the planning regulation or agency procedures.

Although it is recognized that there are problems with the timely implementation of forest plans, the review concluded that many of the problems are not directly associated with the provisions of NFMA. Public land management is complicated by a long series of laws and regulations enacted over many years. This has resulted in a situation once described by Federal District Court Judge Lawrence K. Karlton as a "crazy quilt of apparently mutually incompatible statutory directives." (*United States* v. *Brunskill,* Civil S–82–666–LKK (E.D. Cal. Nov. 8, 1984) unpublished opinion, aff'd, 792 F.2d 9938 (9th Cir. 1986)).

The forest planning process has heightened the visibility of the Forest Service decisionmaking process as the agency attempts to resolve controversial issues amid sometimes conflicting and uncoordinated laws and regulations. Thus, the controversy which often has surrounded forest planning must be viewed in light of the many requirements imposed upon resource planning and decisionmaking by statutory and regulatory requirements other than the National Forest Management Act (e.g., National Environmental Policy Act, Endangered Species Act, Clean Water Act, Clean Air Act). The regulatory review found that it is often the interaction of these other laws and regulations which has increased the controversy surrounding forest planning and land use and not necessarily NFMA itself.

The regulatory review also found that some of the dissatisfaction with NFMA could be traced to the unrealistic expectations which occurred after the statute was enacted. One of the major findings of the Critique of Land Management Planning was the need for adjustments in the public's expectations of forest planning. This is explicitly addressed in the report developed by the Conservation Foundation and Purdue University, Volume 2 of the Critique. It states:

"Undeniably, there is much frustration and dissatisfaction with forest planning. Some members of this study's joint review committee agreed that significant, if not radical, changes in forest planning and management are necessary. Expectations for forest planning are high—in some cases, unrealistically so. Some workshop participants expected forest planning would lead to establishment of "reasonable and sustainable" production goals. Others thought it would free resource allocation from politics while building a powerful case for budgets and appropriations sufficient to accomplish plan goals. And many apparently thought that forest planning would be a way to influence the political process and sway management to their purposes. Probing more deeply, we found that it was not so much the process to which people objected, but

the results of that process. In retrospect, it was inevitable that this would occur. When the law was enacted, representatives of both the Sierra Club and the National Forest Products Association returned to their constituents and proclaimed victory. Obviously, both had different expectations of outcomes under the law. Nonetheless, while participants at the workshops had many suggestions for changes, there was little sentiment for dispatching with the law or process or otherwise wiping the forest planning slate clean." (p. 3)

2. *Many recommendations of the Critique should be implemented through changes in the NFMA regulation.* The Critique resulted in many recommendations which were found to be highly applicable to changes in the existing regulation. Although a number of specific recommendations were used in developing the preliminary regulatory text in this Advance Notice of Proposed Rulemaking, the following three major recommendations identified by the Critique were deemed particularly important:

(a) *Clarify the Decision Framework.* The existing regulation is ambiguous about the nature of forest plan decisions and the appropriate scope of environmental analysis. During the development of the first generation of forest plans, many people believed that forest plans would make irretrievable resource commitments for all projects necessary to fully implement the goals and objectives of the plan. Some portions of the existing regulation arguably support this view. However, other provisions of the existing regulation require separate analysis and decisionmaking prior to implementation of individual projects.

This confusion over the nature of forest plan decisions has been a principal source of controversy for many plans. Most of the administrative appeals of forest plans, filed pursuant to 36 CFR 211.18 (1989) and 36 CFR part 217 (1990), challenge whether forest plans and accompanying environmental impact statements satisfy particular requirements of NFMA, NEPA, the Endangered Species Act, the Clean Water Act, and other environmental laws. Many provisions of these statutes and their implementing regulations require detailed and specific analysis of individual projects and their potential environmental effects prior to an agency's decision to proceed with the project. Forest plan appellants frequently argue that forest plans irretrievably commit the agency to individual projects but fail to provide the analysis and documentation required by these statutes.

In fact, the environmental impact statements accompanying forest plans do not attempt to identify, evaluate, and decide every individual project that is permissible during the normal 10-year period of a forest plan. The agency's experience in developing forest plans indicates that it would be practically impossible to satisfy these obligations in one single set of decisions or in a single environmental impact statement. Administrative appeal decisions by the Chief of the Forest Service and the Office of the Secretary of Agriculture have explained the content of forest plan decisions and the scope of environmental analysis. Nevertheless, the ambiguity of the existing regulation continues to cause confusion and controversy over the nature of forest plan decisions and the appropriate scope of environmental impact statements accompanying forest plans. This ambiguity must be removed.

(b) *Simplify, clarify, and shorten the planning process.* The Critique found that the complexity of the forest planning process was so overwhelming that few people really fully understood it. Further, the Critique found that this complexity often inhibited meaningful communication with the public and other governments, reduced agency credibility, increased the time and cost needed to complete plans, and was generally counter-productive. For example, the existing regulation establishes procedural and analytical requirements that are in some areas significantly more complex than required by NFMA. The emphasis on very rigorous and standardized analysis often seemed to overwhelm other aspects of forest planning and to greatly extend the time required to complete the development of forest plans.

The Critique also identified the problems associated with trying to resolve socio-political issues through a highly technical and systematic set of planning procedures. The importance of balancing technical answers with the values and concerns of the public was highlighted in the Critique's reports.

Another problem associated with the complex planning process is the length of time required to complete forest plans. The lengthy process has proven very frustrating for the public and agency employees. In addition, the financial expenditure required for the lengthy and complex process has had a major impact on the agency and diverted funds and personnel from project decisionmaking and other activities. A General Accounting Office assessment of preparing forest plans on two National Forests estimated that the plans cost $2.1 and $2.5 million, respectively, over a 5 year period (GAO/RCED–87–28FS).

The regulatory review fully endorses the need to simplify, clarify, and shorten the planning process, while also recognizing that forest planning is not an inherently simple task. There is clearly a need to simplify the planning process and to better integrate technical "answers" with people's values. At the same time, it must be recognized that forest planning is a complex task due to the multitude of resources and statutory responsibilities involved. Sound, yet often complex, technical analyses serve a critical role in evaluating resource trade-offs and ensuring that resource decisions are based on the best possible information. As a result, a balance must be found between the simplicity most people desire and the complex reality of trying to develop approaches to difficult problems which involve many technical considerations and diverse public values.

(c) *Provide for "need for change" based revision of forest plans.* The Critique firmly endorsed a "need for change" approach to forest plan revision (also described as "incremental" revision). It was considered a key element to achieving one of six major recommendations of the Critique; i.e., to "Simplify, clarify, and shorten the planning process." (see immediately preceding discussion)

In the report developed by the Conservation Foundation and Purdue University, Volume 2 of the Critique, the relative merits of "zero" based vs. incremental planning are addressed:

"Wiping the slate clean and beginning anew allows the entire universe of alternatives to be examined, unprejudiced by directions and choices that have gone before. In fact, however, change is incremental when the alternatives available are heavily influenced—and circumscribed—by the choices made in the past. Examining the entire universe of alternatives in great detail may be both interesting and informative, but it imposes a tremendous demand for analysis that may go largely unused in the real decision process . . . Federal regulations should be revised to permit an explicitly incremental approach to the revision of forest plans." (p. 61) See the section-by-section discussion of § 219.36 later in this preamble for further information on the differences and benefits.

3. *Many opportunities exist to streamline the existing regulatory text.*

One of the findings of the review of the existing regulation was that much could be done to simplify the text of the regulation and to enhance its readability without creating major substantive changes. For example, there were numerous opportunities to simplify language, shorten definitions, eliminate very similar or duplicative provisions, improve structural organization, and reduce overlap with other laws, regulations, or Executive orders.

In addition, language without real substantive effect is sometimes included in the existing regulation to provide visibility to a particular topic or to provide information of an explanatory nature. Unless they fulfill a meaningful purpose, provisions of this type in the existing regulation should be revised or removed. Although streamlining the text in this manner may initially seem unnecessary or confusing when compared to the existing regulation, the composite effect of such changes can be a significant reduction in the length of the regulation, an enhancement of its readability, and a positive step forward towards better understanding and simplification of forest planning.

Review of the existing regulation also considered the relative roles of the planning regulation at 36 CFR part 219 and the Forest Service directives system. The review indicated that the regulation is better suited for defining the purpose or desired results of planning and minimum standards rather than for describing detailed procedural guidelines. As a result, some streamlining of the regulatory text can be achieved by shifting detailed procedural direction to agency directives. In response to revision of the existing regulation, the agency anticipates a major reorganization of its directives related to forest planning. Subject to procedures in 36 CFR part 216, revisions to planning direction in Forest Service Manual Chapter 1920 will be made available for public review and comment prior to being adopted. The agency hopes to have an initial draft of the updated planning direction available for public review and comment soon after issuance of a proposed rule.

4. *The solution to some problems with the planning process are not within the scope of the planning regulation.*—Approximately one-third of the 232 Critique recommendations related to changes appropriately implemented through the planning regulation or related guidance in the directives system. Subsequently, about two-thirds of the recommendations must be addressed through other channels, such as organizational changes or improved training.

In addition, even though some aspects of planning are within the scope of the regulation, the real success or failure of some endeavors will not depend upon regulatory text, but rather the commitment and understanding of agency personnel and the public. One good example of this is public involvement. No amount of regulatory detail can guarantee effective and open communication. Certain expectations can be defined and minimum procedures established, but ultimately the success or failure of the communication between the agency and public depends upon the people involved. As a result, the agency recognizes that even though modifying the planning regulation is a major and essential step towards improving the effectiveness of forest planning, such improvements must occur in concert with other changes and commitments in order for the full potential of forest planning to be realized.

Public Comment

Based on the findings of the regulatory review, the agency has developed preliminary regulatory text for 36 CFR part 219, Subpart B. This preliminary text is intended to provide a focus for public dialogue on NFMA and encourage public comment on the agency's initial response to findings of the regulatory review. The agency recognizes that there are numerous options for addressing ways that the existing regulation could be changed. It is not possible in this Advance Notice of Proposed Rulemaking to identify or evaluate every option that could be considered for each section of the preliminary text. Once public comment has been received in response to this Notice, the agency will be better able to focus on the areas of particular public interest and consider alternative approaches.

The public is encouraged to comment on all aspects of this preliminary regulatory text. In addition, the agency has identified three areas where additional comment would be particularly helpful. These three areas address issues related to forest planning that are known to be of considerable interest to the public and represent topics in which the agency is particularly interested in receiving public comment.

1. *Degree of Detail Addressing Project Level NEPA Procedures.*—The preliminary text clearly addresses the relationship of NEPA compliance to forest planning and project decisionmaking, but does not include detailed direction regarding how NEPA procedures will be accomplished at the project level. Currently, the agency uses the CEQ Regulations (40 CFR parts 1500 through 1508) as supplemented by the Forest Service directives system (Forest Service Manual 1950 and Forest Service Handbook 1909.15) to guide project level NEPA compliance. The agency is currently in the process of revising the directives which address environmental policy and procedure. The proposed changes should soon be available for public review and comment.

In conducting the regulatory review, the agency recognized that many of the public's concerns with forest plan implementation related not to the requirements of NFMA, but rather to the requirements of a myriad of other statutes and regulations (see Findings of the Regulatory Review). The requirements of NEPA, its implementing CEQ Regulations (40 CFR parts 1500 through 1508), and related case law are particularly noteworthy because they require a variety of procedural steps which must be accomplished prior to project approval during forest plan implementation. As a result, efficient and effective compliance with the requirements of NEPA is an integral part of the successful and timely implementation of a forest plan.

The agency has identified project decisionmaking as generally being the approval point of irreversible and irretrievable resource commitments. Thus, project approval must be accompanied by a site-specific disclosure of environmental impacts (see section-by-section discussion of § 219.33 for a detailed explanation). The public is encouraged to comment on the most efficient means of accomplishing this without compromising the spirit or intent of NEPA. For example, respondents may wish to address tiering environmental documents, cumulative effects disclosure, the use of categorical exclusions, or the need for more specific criteria addressing circumstances for an environmental impact statement rather than an environmental assessment. Consideration could also be given to whether some of the detailed direction on project level NEPA procedures should be shifted to the planning regulation or possibly expanded on in greater depth in a separate regulation.

2. *Changes in Administrative Appeal Procedures.*—The NFMA planning regulation at 36 CFR part 219 does not provide detailed direction on appeal procedures. This detailed direction is found at 36 CFR part 217, Requesting Review of National Forest Planning and Project Decisions, and at 36 CFR part 251, subpart C—Appeal of Decisions

Related to Occupancy and Use of National Forest System Lands. Although the preliminary regulatory text does not contain any change to appeal procedures, the agency is interested in receiving comments from the public regarding the administrative appeals process.

The timely implementation of forest plans is dependent upon a prompt and effective process for handling administrative appeals. Despite attempts to expedite the appeals process through issuance of new appeal procedures in 1989, significant problems with the appeals process continue to exist. For example, there are concerns that some appellants bypass opportunities to resolve issues prior to issuance of a decision, but then use the appeals process to cause intentional delays in project implementation. There are also continuing concerns about the costs of the appeals workload on the agency. Handling this workload continues to require an enormous investment of agency staffing and funds.

Although the appeals process performs an important and helpful role, the agency continues to explore ways to streamline the process and ensure that it is used for its intended purpose. One option would be to provide a proposed decision document for public review and comment prior to its being signed by the deciding officer. This approach would allow the deciding officer to consider comments and adjust or revise the decision in response to those comments as appropriate. The decision document would then be signed by the deciding officer and there would be no further opportunity for administrative appeal.

Another option could be to limit appeals to only those issues raised during opportunities for public comment. The agency invites comment on these options and encourages the public to suggest other ways to make the administrative appeals process more effective and timely.

3. *Role of Non-market Values in Economic Analysis*—The agency specifically invites comments on the usefulness of assigning dollar values to non-market outputs such as "recreation visitor days" and "wilderness visitor days." In developing the preliminary text, the agency has not altered its current approach to assigning and using such values. However, the use of these values has been criticized in comments received on the plans developed under the current rule, in administrative appeals of those plans, and in the Critique of Land Management Planning.

The values have been criticized from several different perspectives. Some people have commented that the methods used to derive non-market values have been either inappropriate or inadequately applied, with the result that the value estimates are either too high or too low. Others have suggested that where the government imposes a fee for an output, such as for some forms of recreation, the value estimate should be based on the fee rather than on some separate and unrelated analytic procedure. Still others have argued that the attempt to assign values to non-market outputs is inherently inappropriate and that the values of these outputs should not be subject to economic efficiency calculations.

The Critique addresses these problems most directly in two places. Volume 4 of the Critique, "Analytical Tools and Information," states that "Nonmarket prices have played a minimal role in making explicit allocation and scheduling decisions in forest planning. Confusion and wide variations of opinion exist about which accounting stance for RPA nonmarket values should be used for forest planning. Furthermore, there is little acceptance for the methods used to estimate RPA nonmarket benefit values." (p.17) These and other findings regarding demand and benefit values (prices) are later followed by recommendations to establish consistent policies regarding the use of market and non-market benefit values and to improve methods for estimating non-market benefit values and demand relationships.

Volume 2 of the Critique, "National Forest Planning: Searching for a Common Vision," addresses the role that non-market values have played in planning from another perspective. That report highlights the problems which have resulted from the strongly analytical approach taken in the existing regulation, including the role of economic efficiency analysis using non-market values in the present net value calculations. The report states, "To perform this analysis, assumptions had to be made regarding the production and value of resources not commonly thought of in economic terms: wilderness and other undeveloped recreation, wildlife and fish, and water all needed some sort of price assigned to them so that their values could be weighed against those of timber, livestock grazing, and minerals * * * This approach worked against effective planning in several ways. Oriented as it was toward resource "outputs" and present net value, it ignored both the ecosystem approach of NFMA and the express desires of the American public that there be a reasonable balance in the management of the national forests." (p. 32)

Reviewers interested in commenting on the role of non-market values are encouraged to read these Critique reports to properly understand the context and discussion from which these excerpts were taken. The section-by-section discussions addressing analysis methods for forest planning (219.36(d)) and economic analysis displays for alternatives (219.36(e)(1)(iii)) should also aid in understanding this issue.

Although both Critique reports raise questions about the use of non-market values, neither provides specific recommendations regarding their future use, nor do they explore the relationship of their use in forest planning to other Forest Service efforts, such as the RPA Program or TSPIRS (the Timber Sale Program Information Reporting System), which currently use these values.

In light of the questions raised by the Critique and the relationship between the use of non-market values in forest planning and in other agency efforts, the agency is interested in further exploring their appropriate role in forest planning. The public is encouraged to comment on this, and any other aspects of interest,related to economic analysis.

Rulemaking Petition Received—On November 1, 1990, the agency received an unsolicited petition for rulemaking from the National Forest Products Association and 79 other organizations "to engage in a rulemaking to amend the regulations set out at 36 CFR part 219 to improve the implementation of land and resource management plans ('forest plans'), provide for the prompt amendment, establish specific environmental documentation requirements, and for related reasons." This petition for rulemaking included proposed regulatory text and the rationale for it. It represents an optional approach to changing the NFMA planning regulation at 36 CFR part 219.

This Advance Notice of Proposed Rulemaking serves as the agency's response to the request for rulemaking. The specific recommendations in the petition will be considered as part of the public comment associated with this Notice and will be considered at the same time that the other comments are evaluated.

Major Goals of Preliminary Proposal

The following list describes some of the major goals of a new regulation to be codified at 36 CFR part 219, subpart B, and is provided to assist reviewers in understanding the scope and intent of the preliminary regulatory text.

1. *Simpler, more understandable process.* Subpart B would reduce some of the complexity of the existing planning process and should result in a more relevant, understandable approach to forest planning.

2. *Shorter time needed for forest plan revision.* Subpart B would make procedural changes which should shorten the time period needed to revise a forest plan, thus reducing costs and some of the frustrations associated with previous, lengthy planning efforts.

3. *Emphasis on the on-going nature of forest planning and project decisionmaking.* Subpart B would stress that forest planning is a continuous process dependent on periodic monitoring and evaluation, keeping plans current and updated through amendment or revision, and maintaining on-going and meaningful communication with the public and other governments.

4. *More dynamic, responsive forest plans.* Subpart B would make procedural changes which should shorten the time period needed to revise a forest plan, thus reducing costs and some of the frustrations associated with previous, lengthy planning efforts.

5. *Better focus for analytical efforts.* Subpart B would focus analytical efforts on the key information needed by decisionmakers regarding environmental, economic, and social effects rather than on trying to define a wide range of standardized analytical requirements which may not be relevant to local conditions or the decisions being made.

6. *"Ends" rather than "means" orientation.* Subpart B would reduce the amount of direction which instructs how to accomplish various planning tasks and focuses instead on clarifying the desired results of the planning effort.

Highlights of Preliminary Proposal

The preliminary text for a new subpart B, which is set out at the end of this Notice, reflects several provisions which vary notably from the approach taken in the existing regulation. These provisions are addressed in detail in the section-by-section discussion which follows. The following list highlights some of the key features included in the preliminary regulatory text. Reviewers are encouraged to closely review the section-by-section discussions to fully discern the nature and scope of these and all other provisions.

1. *Establish "a need for change" as the basis for revision of a forest plan.* Subpart B would describe a revision process that is based on the "need to change" a plan (i.e., incrementally based), rather than repeating the same "zero" based procedural steps as used for development of initial forest plans.

2. *Clarify the staged-decisionmaking process.* Subpart B would define the nature of decisions made in forest plans and the relationship of programmatic forest plans to site-specific project decisionmaking.

3. *Define consistency requirements.* Subpart B would specify that the consistency of a project with the forest plan is based on adherence to the standards and guidelines.

4. *Define overall planning and decisionmaking framework.* Subpart B would address the relationship of forest planning to other resource planning and decisionmaking efforts and would clearly identify that forest plans are the mechanism by which the results of these other efforts are integrated into on-the-ground management.

5. *Eliminate requirement for regional guides.* Subpart B would replace the previous requirement for regional guides with a more flexible planning and decisionmaking structure for addressing regional resource issues.

6. *Emphasize the role of public involvement and coordination with other governments.* Subpart B would strengthen the commitment to public involvement and coordination with other Federal agencies and State, local, and Indian tribal governments and introduces new provisions designed to promote on-going and meaningful communication.

7. *Require preparation of an annual monitoring and evaluation report.* Subpart B would promote the role and visibility of monitoring and evaluation by establishing a requirement for preparation of an annual monitoring and evaluation report to be transmitted to the Regional Forester and made available to the public.

8. *Define requirements to provide for biological diversity.* Subpart B would provide for diversity by establishing requirements related to threatened or endangered species, sensitive species, rare or unique biological communities, and other selected species and would provide for their monitoring.

9. *Introduce the concept of "management indicators".* Under subpart B, the concept of "management indicator species" would be replaced with a somewhat similar concept of "management indicators" and its role would be linked to the monitoring and evaluation of selected species and communities for the purposes of assuring biological diversity.

10. *Establish a new process for identifying unsuited timber lands.* Subpart B would establish substantially altered procedures including a provision for categorizing suitable timber lands as either "suitable-scheduled" or "suitable-unscheduled".

Section-by-Section Analysis

The principle features of the preliminary regulatory text keyed to CFR section numbers are summarized here.

Section 219.30 Purpose and principles. This section would identify the topics that subpart B addresses; implementing and changing forest plans, the relationship of forest plans to project decisionmaking and NEPA compliance, and how forest plans fit within the agency's overall resource planning and decisionmaking framework. Thus, subpart B would essentially address all aspects of land and resource management planning (hereafter, forest planning), except for direction regarding the development of initial forest plans, which is found at subpart A.

Paragraph (b) would identify 10 principles based on statutory authority and agency policy which describe the conceptual basis for National Forest System resource planning and subsequent resource management. The first three principles (§ 219.30(b) (1)–(3)) would provide an overall perspective for forest planning. The first principle would reaffirm the agency's commitment to multiple-use and sustained-yield management and would recognize the role of environmental and amenity values in managing the National Forests to meet the needs and desires of the American people in an ecologically sound manner. The second principle would recognize that forest planning does not occur in isolation, but rather is part of an overall planning and decisionmaking framework which varies in nature among the national, regional, forest, and site-specific project levels. The third principle would describe the forest plan as a framework for establishing how a forest will be managed while integrating environmental and economic factors. This would set the stage for forest plans to be viewed as a "gateway" for future decisions rather than as an accumulation of all the site-specific decisions needed to manage a forest for the decade of the forest plan—an important clarification that is central to the structure of the regulatory text.

The next two principles (§ 219.30(b)(4)–(5)) would reflect essential components of successful planning as evidenced by findings of the Critique of Land Management Planning and agency experience. One principle would reaffirm the importance of an interdisciplinary approach to planning,

recognizing its role in properly integrating multiple-use values and understanding ecosystem relationships. The other principle would stress the vital importance of on-going and open communication with the public and other governments.

The next three principles (§ 219.30(b)(6)–(8)) would address the dynamic nature of forest plans. The sixth principle highlights the need to be able to readily and efficiently change plans in light of changing conditions, a critical factor if plans are to serve as dynamic, relevant documents to guide forest management over time. At the same time, it reflects the need to gradually phase in those changes when they have significant impacts on people and communities. The concept of "need for change" based revision would be established in the seventh principle, with the important and heightened roles of monitoring and evaluation described in the eighth principle.

The last two principles (§ 219.30(b)(9)–(10)) would focus on the planning process itself. The first articulates the need for an understandable and timely planning process in order to enhance public involvement and result in sound, responsive resource decisions. The last principle would establish the concept that the level and intensity of analysis in planning should be integrated with the requirements for NEPA compliance and commensurate with the decisions being made.

In total, the ten principles concisely highlight the underlying concepts and assumptions upon which the preliminary regulatory text is based and provide the foundation for the substantive requirements set forth later in the text.

Section 219.31 Applicability and transition. Subpart B would apply to the entire National Forest System except for those situations where an initial forest plan has not been completed. Paragraph (a)(1) of this section would make clear that, under such circumstances, subpart A would apply until the forest plan is approved. As a result, the agency would maintain consistent regulatory guidance for development of all initial forest plans and avoid disruption of the planning process for the unfinished plans. As previously noted, eight forest plans remain unfinished, all in the Pacific Southwest Region (R5). These are plans for the Stanislaus, Modoc, Lassen, Shasta-Trinity, Sierra, Mendocino, Six Rivers, and Klamath National Forests.

Paragraph (a)(2) requires that the Regional Guide for the Pacific Southwest Region be maintained in accordance with the requirements of the existing regulation (subpart A) until all forest plans are complete. This is in contrast to the direction for all other Regions as found at paragraph (d) of this section. The Pacific Southwest Region would be required to maintain a regional guide in order to direct development of the unfinished forest plans.

Paragraph (a)(3) provides that the resource requirements of §§ 219.41 and 219.42 would not trigger the need to change an existing forest plan prior to the time when revision would otherwise occur. Although it is the agency's desire to bring all forest plans into accordance with subpart B as soon as reasonably possible, it is recognized that it would be very disruptive, expensive, and unnecessary to require every forest plan to be assessed against the resource requirements of a newly effective rule prior to a scheduled revision. Therefore, the resource requirements of §§ 219.41 and 219.42 would be phased in through the normal amendment and revision processes.

Paragraph (b) would require that if a forest plan is in the process of being amended or revised when subpart B becomes effective, the amendment or revision would need to be completed in accordance with the requirements of subpart B. This provision is intended to accelerate implementation of subpart B. However, the agency intends to reassess this provision prior to issuance of a final rule since it is not possible at this time to accurately predict the nature of the final rule nor the impact it might have on forest plans midway through the amendment or revision process.

Paragraph (c) clarifies use of the term "forest plan" and describes how more than one forest may be addressed in a single plan.

Paragraph (d) provides instructions for making the transition from the regional guides required by § 219.8 of the existing regulation to the planning and decisionmaking framework defined at § 219.33 of subpart B. This paragraph would require the Regional Forester to tentatively identify a process and timetable for phasing out the regional guide and then provide that information to the public for a 60-day comment period. After reviewing public comments, the Regional Forester would make a final determination regarding how the regional guide will be phased out.

The intent of this provision is two-fold. First, it is designed to provide for the orderly termination of regional guides prepared in accordance with § 219.8 of the existing regulation. Since it is the agency's desire to implement subpart B in as timely and concise a manner as possible, it is incumbent that outdated documents be discontinued. However, the most appropriate pace for doing so may vary among Regions and some, or all, of the information in regional guides may still be valid and needed. Therefore, subpart B would provide for a timetable to be determined and process established for reviewing each regional guide to eliminate unnecessary contents and identify elements still beneficial and needed. The Regional Forester would have the flexibility to determine how best to retain the beneficial provisions, as described in § 219.33(d).

As evident from this transition language, subpart B would eliminate the requirement for a regional guide. During development of the existing regulation, regional guides were viewed as an important link between RPA at the national level and forest planning at the local level. One important function of the regional guides was to serve as a mechanism for disaggregating resource objectives from the RPA Program to each forest planning area. Another key function was to provide regional standards and guidelines in compliance with specific resource requirements of the regulation.

Although this approach had considerable merit initially, the need for these two functional roles has lessened over time. First, due to changes in the nature of the RPA Program, the role of the regional guide for disaggregating resource objectives is no longer relevant. As stated in the Summary of the Recommended 1990 RPA Program, "The 1990 RPA Program provides broad national guidance for program emphases and trends, rather than specific, quantified output targets for individual forest programs" (p. S–7). The role of the regional guide in providing regional standards and guidelines has also diminished. Such direction has generally already been incorporated into approved forest plans. Any reconsideration of standards and guidelines can be achieved through the forest plan amendment or revision processes.

Agency experience has shown that regional guides may no longer be the most effective and efficient means for providing regional direction. In reality, most regional guides did not fully achieve the role of being the meaningful or effective documents originally envisioned. Moreover, the rigorous requirements of §§ 219.8 and 219.9 in the existing regulation proved to have siphoned a significant investment of staffing and funds from forest or project planning efforts.

Although the requirement for regional guides would be eliminated, the importance of regional planning and decisionmaking is not diminished. Instead, the Regional Forester would have more flexible, efficient, and effective options for establishing regional direction through already available adminstrative means, including the Forest Service directives system (36 CFR part 200) and issuance of inter-regional, regional, or sub-regional planning and decision documents (see § 219.33(d)). This approach, which would continue to provide for NEPA compliance and appropriate public notice and comment, is consistent with the overall thrust of subpart B to simplify and streamline the planning process.

Section 219.32 Definitions. The following definitions are in the existing regulation but would not be included in subpart B either because they are not used or because they do not vary in meaning from common and well-established uses of the term: Base sale schedule; Biological growth potential; Capability; Corridor; Cost efficiency; Management concern; Management direction; Management intensity; Multiple use; Net public benefits; Planning horizon; Public issue; Real dollar value; Receipt shares; Responsible line officer; Sale schedule; Silvicultural system; Suitability; and Sustained yield of products and services.

The following terms would be newly defined in this section: Class I area; Environmental and amenity values; Evaluation; Infrastructure; Management area; Management indicators; Monitoring; NEPA procedures; Programmatic environmental impact statement; Project; Regulated volume; RPA Assessment and Program; Responsible official; Sensitive species; Special habitats; Standards and guidelines; Suitable-scheduled lands; Suitable-unscheduled lands; and Viable population.

The following definitions appear in the existing regulation and would be retained in subpart B: Allowable sale quantity; Diversity; Even-aged management; Forested land; Goal; Goods and services; Integrated pest management; Long-term sustained-yield timber capacity; Management practice; Management prescription; Objectives; Planning area; Plan period (previously planning period); Present net value; Timber production; and Uneven-aged management.

Unless otherwise noted in the following paragraph, any changes in the definitions of this section from those in the existing regulation are for clarity or improved readability and may be considered to have little or no substantive effect.

The definition of "Allowable sale quantity" (ASQ) highlights that the ASQ is a maximum volume or decadal "ceiling"; ASQ is calculated based only on suitable-scheduled lands (see §§ 219.40(c)(3) and 219.41(b)(3)(i)). The definition of "diversity" clarifies that diversity is determined based on the land area controlled by the forest plan (see § 219.40(b)). The definition of "planning area" has been modified to be applicable to any area controlled by a decision document rather than limited to only regional guides or forest plans. The definition of "plan period" has been adapted to reflect the fact that plans may last longer than a decade, though not longer than 15 years, before being revised.

Some definitions are further discussed in association with the section in which they are used. For example, the term "Management indicators" is discussed in the explanation of § 219.40(b) or refer to the discussion of § 219.41 for clarification of the terms "suitable-scheduled" and "suitable-unscheduled."

Section 219.33 Resource planning and decisionmaking framework. This section would define the nature of decisions made in forest plans, the role of project decisionmaking, the relationship of plans and projects to NEPA compliance, and the relationship of forest planning to other resource planning and decisionmaking. This section responds to a major finding of the Critique of Land Management Planning and to agency experience as discussed earlier in the preamble under the discussion of "Findings of the Regulatory Review".

Paragraph (a) would establish the nature of decisions made in forest plans, clarifying that plans are programmatic in nature and generally do not provide final authorization for irretrievable resource commitments. The intent of paragraph (a) is to codify the description of the nature of forest plan decisions as has already been articulated by the agency and supported by the Federal courts on previous occasions.

The Chief of the Forest Service identified the decisions made in forest plans in two landmark administrative appeal decisions (Panhandle LRMP Appeal #2130, August 15, 1988, p.7; Flathead LRMP Appeals #1467 and #1513, August 31, 1988, p.8). Numerous other appeal decisions also reflect the nature of forest plan decisions. For example, in the Chief's decision in the Routt LRMP Appeal by RMOGA, May 25, 1984 the Chief ruled that lands designated as not available for oil and gas leasing in the LRMP (forest plan) could be redesignated when a decision was made at a more site specific point; similiarly in the Decision of the Pike and San Isabel LRMP Appeal by Maas #1130, February 13, 1986) the Chief affirmed the possible ski area designation in the forest plan but noted that this was not the final decision nor appeal opportunity on whether a ski area would be developed. In the Chief's Decision on the Routt LRMP Appeal by Wahl, April 23, 1986 assignment of timber harvesting prescription in the forest plan was the decision affirmed, but the decision noted that this did not represent the final decision on development, pending further NEPA compliance and appeal opportunity.

The courts have adopted the Chief's characterization of the nature of forest plans. The court's decision in *Council for Environmental Quality (CFEQ)* v. *Lyng*, [731 F.Supp. 970, 977–978 (D. Colo. 1989)] contains an almost verbatim characterization. In addition, the court's decision in *Idaho Conservation League* v. *Mumma* [CV 88–197–M–CCL (D. Mont. decided August 8, 1990)] further supports this interpretation.

In the Idaho case, the plaintiffs initially argued that the assignment of non-wilderness management prescriptions in the forest plan constituted an irreversible commitment to develop these roadless areas. The Chief's appeal decision had refuted the plaintiff's characterization stating that the Forest Service uses a staged decisionmaking process and that the forest plan did not make project level decisions. In rejecting the plaintiffs' position, the court noted: "The Plan does not deal with any specific development of those areas which were designated as non-wilderness. It does not even propose any future development; it merely allows for the possibility of development in the future" (at 5–6). The court noted that "[i]n this case any future development which might take place will again be determined by the Forest Service and will be subject to the requirements of NEPA" (at 6).

Consistent with the concept of the forest plan as a broad, programmatic statement, paragraph (a)(1) establishes the content of forest plans: forest-wide goals and objectives, forest-wide standards and guidelines, management areas and associated management prescriptions, identification of lands not suited for timber production, and monitoring and evaluating requirements.

Paragraph (a)(2) characterizes the nature of forest-wide objectives as estimates of the goods, services, or activities intended to be produced or achieved. In case of conflict, adherence

to the standards and guidelines as required by the consistency provisions of § 219.34(b) would take precedence over the attainment of objectives. The relationship of objectives to the consistency requirements is explained under the section-by-section discussion for § 219.34.

Paragraph (b) would clearly identify project decisionmaking as normally being the point of authorization for site-specific activities. Paragraph (c) expands upon paragraph (b) and provides further definition of the relationship between NFMA (forest planning and project decisionmaking) and NEPA. Paragraph (c) would establish the requirement for a programmatic EIS to accompany a forest plan revision or major amendment, while project decisionmaking would be identified as normally being the point of irretrievable resource commitment requiring a site-specific rather than programmatic disclosure of environmental effects.

The characterization of project decisionmaking as the point normally authorizing the irreversible commitment of resources is consistent with the description of the nature of forest plan decisions. The basis for this relationship between plans and projects rests largely upon the requirements for compliance with NEPA. In a landmark court case (*State of California* v. *Block*, 690 F.2d 753 (9th Cir. 1982)), the Ninth Circuit stated that "the critical inquiry in considering the adequacy of an EIS prepared for a large scale, multi-step project is not whether the project's site-specific impact should be evaluated in detail, but when such detailed evaluation should occur". The court determined that "[t]his threshold is reached when, as a practical matter, the agency proposes to make an irreversible and irretrievable commitment of the availability of resources' to a project at a particular site."

A requirement to disclose a project's site-specific impacts at the time of proposing an irreversible and irretrievable commitment of resources would impose an unbearable burden upon a forest plan EIS if such commitments were to be made in the forest plan for the ten-year plan period. It is, as a practical matter, impossible for a forest plan to identify all of the projects to be implemented for a ten-year period or to adequately disclose their site-specific environmental effects in an accompanying EIS. In addition, many activities occurring on a forest are initiated by forest users and not the Forest Service. The relationship of projects initiated by others and projects planned by the Forest Service is continuously changing. Furthermore, new information regarding the relationship and effects of actions within any given ecosystem are constantly being developed. No matter how sophisticated forest models become, it is doubtful that the order and relationship of possible activities can ever be forecast with enough precision to fulfill environmental laws or the realities of a changing world at the forest plan approval stage. As a result, the forest plan is best viewed not as an aggregate of 10–15 years worth of project decisions (irreversible and irretrievable resource commitments), but rather as a dynamic management system which provides the framework for further decisionmaking at the project level.

Paragraph (d) would establish the forest plan as the mechanism by which other levels of planning and decisionmaking are integrated into on-the-ground management. Paragraph (d) also recognizes that forest planning responds to laws, regulations, Executive orders, direction issued through the Forest Service directive system, and national, regional, inter-regional, or sub-regional planning and decision documents.

Regional supplements to the Forest Service Manual or Handbooks could be issued. Direction could also be developed and provided through regional or sub-regional planning and decision documents. This would provide the Regional Forester with the flexibility to develop the type of documents relevant to the particular needs of the region. This might range from an inter-forest demand study provided for informational purposes to establishment of regional resource standards and guidelines through a supplement to the Forest Service Manual. Any resource decision must be integrated into the forest plans through amendment or revision, however, in order to be effective on a particular forest. This can be achieved through the Regional Forester's decision document or on a forest-by-forest basis. Either way, however, NEPA compliance would be necessary as part of the amendment or revision processes.

Although the RPA Program no longer functions as a source of national resource outputs to be disaggregated to the forest level, it still retains an important link to forest planning. Under paragraph (d), upon publication of a new RPA Program, the Regional Foresters and Forest Supervisors would be required to review and consider the new RPA Program during monitoring and evaluation. This provides a checkpoint for considering the Program along with any other new direction which may have been issued subsequent to approval of the forest plan (see § 219.35(c)(3)).

Paragraph (d) would also reflect the possible need for inter-regional or sub-regional planning and decision documents which cross regional or forest boundaries. In contrast to the existing regulation which patterned planning documents parallel to administrative structure, this paragraph recognizes that many issues and ecosystems cross regional boundaries or occur within only a portion of a region. Subsequently, consistent with the intent to keep planning as flexible and relevant as possible, this text specifically recognizes that inter-regional or sub-regional planning may be needed.

219.34 Forest plan implementation and consistency. Paragraph (a) of this section would identify both NEPA compliance and a determination of consistency with the forest plan as required steps prior to project approval.

Paragraph (b) would describe how forest plan consistency is determined. A determination of consistency with the forest plan is based on adherence to the forest-wide standards and guidelines and the standards and guidelines included in management prescriptions for specific management areas. Consistency with the forest plan would not be determined in relation to forest plan objectives.

Although some may believe it is desirable to include objectives in the consistency determination, such an approach would be directly counter to the conceptual foundation of the nature of forest plans. Forest plans provide the framework within which further decisions at the project level are made. That framework is largely defined by the standards and guidelines which preclude or impose limitations on resource management activities, generally for the purposes of environmental protection or public safety. Standards and guidelines are explicit requirements which describe any activities not permitted to occur in a specified area or which establish instructions on how activities must be implemented in order to achieve their intended purpose for environmental protection or other needs. Individual projects can generally be readily assessed for their compliance with standards and guidelines.

In contrast, achievement of objectives is dependent on the cumulative results of individually authorized projects. As previously noted, a forest plan is not,

and cannot be, the document which authorizes approval of all the projects which would occur during the ten-year plan period. Also, as described at § 219.33(a)(2)), objectives represent estimates of the goods, services, or activities intended to be produced or achieved and their attainment is dependent upon funding, market conditions, and other variable factors. Therefore, it would be inappropriate to base consistency determinations on estimates of outputs which may result from projects not yet evaluated or authorized and which are subject to unpredictably fluctuating conditions.

The consistency requirements of paragraph (b) would recognize that objectives cannot be portrayed as having the same certainty of achievement as standards and guidelines. Objectives are the best possible estimates of what should occur when management prescriptions are implemented in accordance with the standards and guidelines. Given the uncertainties of ever-changing conditions and the limitations of even the most sophisticated forecasting models, forest plans can only represent the best estimate of specific outputs. What forest plans can assure, however, is the manner in which the resources will be managed as defined by the standards and guidelines.

As a practical matter, it would be very difficult to evaluate the achievement of forest plan objectives on a project-by-project basis even if it were desirable to do so. Resource objectives are defined as cumulative totals for the 10-year plan period and achievement of the plan can only be viewed from a decadal perspective. Project-by-project consistency could only be assessed if project listings were identified in the forest plan with their associated share of outputs. Since it is not realistic to complete the NEPA disclosure and project authorization for such a 10-year listing, the basis for such an assessment would be subject to some degree of uncertainty. In recognition of the shortcomings of such an approach, subpart B would not require activity schedules and does not link consistency determinations to any type of project-specific output.

Paragraph (b)(1) requires that plans, permits, contracts, and various other instruments issued by the Forest Service for use and occupancy of National Forest System lands are required to be consistent with forest plans subject to valid existing rights. This is a restatement of the requirements of NFMA and the existing regulation.

Paragraph (b)(2) requires documentation of consistency findings during project approval and provides appeal opportunities in accordance with 36 CFR part 217, Requesting Review of National Forest Plans and Project Decisions. It also recognizes possible appeal opportunities for permittees or contract holders in accordance with 36 CFR part 251, subpart C, Appeal of Decisions Relating to Occupancy and Use of National Forest System Lands. These provisions assure that the public has an opportunity to review and question consistency findings.

Paragraph (b)(3) would establish provisions for those situations where a project, contract, permit, or other previously approved decision exists which may be inconsistent with a newly approved amendment or revision of a forest plan. Under such circumstances, the amendment or revision must address such previously approved decisions and such decisions may be excluded from applicability to the newly revised or amended plan, provided they are so identified when approving the amendment or revision.

The provisions of paragraph (b)(3) are intended to address problems which occur when there is a change in a forest plan. At any point in time, there are numerous projects on a forest which have been approved, but not yet implemented, or which are already under permit, contract, etc. In many cases, a considerable additional investment of staff time and money may be needed to continuously review and modify such projects, permits, or contracts with every change of the forest plan. Rather than require a continuous recycling of such decisions with every change to the forest plan, paragraph (b)(3)(i) allows exemptions provided they are identified in the amendment or revision decision. It is intended to reduce the workload associated with amendment or revision as well as provide concise direction on how such situations will be handled. It should be noted that nothing in the provision prohibits the immediate application of an amendment to all forest activities if appropriate.

Unless excluded from applicability by paragraph (b)(3)(i), paragraph (b)(3)(ii) required that projects approved prior to an amendment or revision would have to be assessed for consistency with the newly amended or revised plan. These consistency findings would be documented to provide assurance that such projects are indeed consistent with the plan.

The appeal provisions for paragraph (b)(3)(ii) would vary from paragraph (b)(2). Unlike paragraph (b)(2) which addresses the appealability of a consistency determination included in a decision document at the time of project approval, paragraph (b)(3)(ii) addresses those situations where a project has already been approved but not yet implemented through a permit or contract. Unless the project is modified to such an extent that a new decision document is issued, there is no basis for appealing the consistency of the previously approved project with an amended or revised forest plan. This is because no new NEPA decision document has been issued. Since only decisions in NEPA decision documents are appealable under 36 CFR part 217, the documentation of consistency as described by paragraph (b)(3)(ii) is not appealable.

Paragraph (b)(4) would list the options available to a responsible official when faced with a project proposal inconsistent with the forest plan. An important feature of this provision is recognition of the role of valid existing rights as required by NFMA. The options are to: modify the proposal to make it consistent; reject the proposal; or amend the forest plan to permit the proposal.

Paragraph (c) would provide that an approved forest plan remains effective until approval of an amendment or revision. This is to clarify that plan direction remains valid during the time that change is being evaluated but has not yet been approved.

Paragraph (d) would describe how a forest plan is to be implemented if any portion of the plan is stayed as a result of an administrative appeal. This paragraph would assure that there is no gap in applicable management direction as a result of stays by providing for non-stayed provisions to continue to be applied and stayed provisions to be substituted with the immediately previous version, unless otherwise directed by the Appeal Reviewing Officer.

Paragraph (e) would require that the Forest Supervisor develop budget proposals based on the forest plan, which is similar to the requirement of § 219.10(e) in the existing regulation. In addition, this paragraph directs that the Forest Supervisor will strive for efficient and effective use of funds to implement the forest plan or specific provisions of the Annual Appropriations Act. This is in recognition of the importance of sound fiscal management in both the development and implementation of annual budgets and acknowledges that actual appropriations may not always match the funds requested for implementation of the forest plan.

Section 219.35 Forest plan monitoring and evaluation. This section is designed

to strengthen the role and visibility of monitoring and evaluation in the forest planning process. Paragraph (a) would require systematic monitoring and periodic evaluation to determine if changes are needed in the plan or in how the plan is being implemented.

Paragraph (b) would list three specific results to be achieved by the monitoring and evaluation requirements in forest plans. Unlike the existing regulation (§ 219.12(k)) which is more specific but limited in scope, paragraph (b) would direct that monitoring and evaluation requirements provide for (1) assessing proper implementation of projects, (2) determining the effectiveness of plan implementation in achieving the intended results of the plan, and (3) identifying the availability of new information which may affect the plan. As a result, a concise yet broader framework would be established for making sure the plan is functioning as was envisioned when it was approved.

Paragraph (c) provides for the identification of inventory and research needs to support forest planning efforts as well as an on-going review of any new direction issued subsequent to plan approval. The identification of new information would serve to keep the plans dynamic and responsive to changing conditions. This includes serving as a systematic means for recognizing new direction, such as new laws, regulations, or Executive orders, and assessing any changes which may subsequently be appropriate for the forest plan. The provision for identifying inventory and research needs recognizes the importance of sound data and scientific knowledge upon which to base forest plans. These needs were also specifically recognized in Section 6 of NFMA. These provisions establish a visible link between forest planning and research, while also promoting the development and maintenance of forest data needed for future planning by requiring the identification of current "and anticipated" data needs.

Paragraph (d) would introduce a new requirement for an annual monitoring and evaluation report to be transmitted to the Regional Forester and made available to the public. This provision reflects the concept that planning is an on-going process dependent upon continuous review and feedback. These annual reports would assure the Regional Forester and public a much greater role in the monitoring and evaluation process by providing the opportunity to periodically receive information on the status of plan implementation, as well as the Forest Supervisor's assessment of whether or not change is needed in the plan or how it is being implemented. As a result, communication between the Forest Supervisor, Regional Forester, and the public about the progress of plan implementation should be enhanced and a stronger foundation established for keeping the plans dynamic and responsive documents.

Section 219.36 Forest plan revision. This section would establish a distinctly different process for forest plan revision than is contained in the existing regulation at § 219.12(a). Rather than requiring repetition of the "zero" based process which was used for initial development of the forest plans, it would focus revision on those aspects of the forest plan which need to be changed. This concept of a "need for change" based revision is a key aspect of Subpart B and was discussed earlier in the preamble under the section entitled "Critique of Land Management Planning".

The concept of a "need for change" based revision introduces a fundamental change to the revision process. Unlike the "zero" based approach for initial plan development which is designed to consider alternatives for all aspects of forest management, "need for change" based revision only focuses on the aspects which aren't functioning adequately. Alternatives only vary according to the aspects of the forest plan under consideration for change. In this manner, the revision process stays focused on the real choices to be made rather than diverting time and attention for evaluating changes or writing voluminous pages of analysis that don't truly lead to better resource management decisions. The concept of "need for change" based revision is also accompanied by several other key changes in the planning process which are described in the following discussions.

Paragraph (a) would identify the circumstances which trigger revision. In addition to routinely scheduled revisions about every ten but no more than fifteen years, revisions would be triggered when conditions have significantly changed such that fundamental parts of the forest plan are no longer appropriate to implement. (For clarification of the distinction between revision and major amendment, see the section-by-section preamble discussion for § 219.37.)

Paragraph (b) would identify the Regional Forester as the responsible official for revision, as is the case in the existing regulation. (§ 219.10(a)(1)).

Paragraph (c) would describe how the public and other governments would be provided an opportunity to become involved in the revision process. These provisions reflect a notably different approach to initiating the revision process than is found in the existing regulation. The changes are intended to be responsive to findings of the Critique of Land Management Planning regarding improvements needed in the planning process and the public's ability to participate in it.

Paragraph (c) requires notice of the revision process in the **Federal Register** and to all individuals and organizations on the Forest's previously established mailing list (see § 219.39(a)(1)). It also provides an opportunity for comment on the information provided by the Regional Forester. This comment period is an important opportunity for the public to comment on which aspects of the plan need to be changed and the appropriateness of the anticipated alternatives and analytical procedures. As a result, the Regional Forester will be able to modify the revision process accordingly in response to the public's review prior to a large investment of time and effort to fully develop and evaluate alternatives in a proposed plan and draft EIS.

One distinct change reflected in paragraph (c)(1) is that rather than identifying issues, the revision effort is initiated by identifying specific aspects of the forest plan which need to be changed. This clearly reflects the "need for change" based revision concept. Another distinct change reflected in paragraph (c)(1) is that the Forest Supervisor would tentatively identify the areas of needed change, with review and concurrence by the Regional Forester. It is after this tentative identification that the public involvement process is initiated to verify the accuracy of their assessment.

In the existing regulation, revision is initiated by involving the public in the identification of issues. Although this was a logical starting point for the development of initial forest plans, the revision process will have the benefit of several years of on-going communication with the public related to project decisionmaking and monitoring and evaluation. Thus, the Forest Supervisor and Regional Forester should already have a good idea of how the public feels about management of the forest and the adequacy of the forest plan. After repeated requests in the past asking the public to identify forest management issues, the complaint is sometimes heard of "How many times do we have to tell you?" This new approach to initiating public involvement is a way to avoid another

open-ended request for issues and show the public that the agency has been listening.

Paragraph (c)(1) would also include changes which provide for public comment not only on the tentative identification of which aspects of the plan need changed, but also on a summary of the analytical procedures anticipated to be used and a brief description of the alternatives anticipated to be considered. This is intended to give the public an active role in assessing how the revision would be conducted.

The intended effect of these changes is two-fold and directly responsive to the Critique of Land Management Planning. First, they would help to shorten the time period between initiating the revision process with the public and issuance of the proposed plan and draft EIS. According to findings of the Critique, one of the concerns often raised internally and externally was the length of time required to complete a plan. Under the provisions of paragraph (c)(1), the Forest Supervisor and Regional Forester do preliminary work in preparation for the revision process, resulting in time-savings once the public involvement efforts begin. By investing more effort prior to initiating public involvement, the public should not be subjected to the long delays which often proved frustrating and confused meaningful communication.

The second intended effect is also directly responsive to the Critique. Under the provisions of paragraph (c)(1), there is better opportunity for more meaningful public involvement and comment. Although at first glance it might appear that the "up front" efforts are counter to the concept of early and on-going public involvement, in reality these "up front" efforts should greatly help this public involvement concept become a reality. By providing the public with the results of the Regional Forester's initial evaluation regarding "need for change", anticipated alternatives, and anticipated analysis procedures, the public is provided with substantive, comprehensive information upon which to base their comments. The approach should promote a more focused means for the public to respond while simultaneously expanding their scope to a broader perspective of the overall revision process. In addition, this approach treats revision as part of an on-going process of forest management rather than an isolated event distinct from previous decisions or communications with the public.

Paragraph (c)(3) would establish specific coordination requirements to assure early and on-going communication with representatives of other Federal agencies and State, local, and Indian tribal governments. These provisions are intended to strengthen the requirements found at § 219.7(d) of the existing regulation. Paragraph (c)(3) would retain the requirement to meet early in the revision process and would increase emphasis on the need for on-going communication throughout the revision process. In addition, it would add a new requirement to meet again with interested representatives during the public comment period of the proposed plan and draft EIS. This is considered an important point in the process for assuring that the interests of other governments are fully recognized. These changes are intended in part to respond to findings of the Critique of Land Management Planning that revealed a better understanding of mutual roles and enhanced communication is often needed in order to properly coordinate planning efforts with other government interests.

Paragraph (d) would provide the Regional Forester with the discretion to determine the level and type of analysis needed to adequately disclose trade-offs and make an informed decision. It would identify the need for environmental, economic, and social analysis and would direct that such analysis be commensurate with the data available and decisions being made. Allowable procedures are limited to only generally accepted analysis and evaluation methods.

The provisions of paragraph (d) introduce a noteworthy change from the existing regulation. The intent is to allow analytical efforts to be focused on the critical questions raised by forest plan revision rather than dispersed across a wide range of standardized analytical requirements which may not be relevant to local conditions and concerns. Such flexibility is especially warranted with the "need for change" approach to forest plan revision. Since this approach is designed to allow each forest to focus on only those aspects of the forest plan which need changed, forests will likely vary to a considerable extent as to what that focus will be. This variation is likely to be much greater during revision than initial plan development when all forest planning efforts were "zero" based. This variation is in addition to the inherent differences in local conditions found among National Forests in the country. For example, the analysis needed to support forest plan decisions on a forest intensively managed for wildlife and recreation values but with little or no commercial timber resources would be considerably different from the analytical needs for a major timber-producing forest with economically dependent communities and highly controversial commodity trade-offs.

The flexibility provided by paragraph (d) is also intended to enhance an overall understanding and confidence level in analytical procedures. Findings of the Critique of Land Management Planning clearly indicate that many people, both internally and externally, distrust analytical procedures and view computer models as mysterious "black boxes" which produced incomprehensible and unverifiable answers. This has occurred in part because of rigorous, standardized, analytical requirements which demanded creation of complex computer models. In many cases, neither agency personnel nor the public have had confidence in the data required to run the large, complex models nor enough confidence in the results to understand and properly use them in decisionmaking. The approach reflected by paragraph (d) keeps analytical procedures highly focused and relevant to local decisionmaking needs and thus should help to alleviate this problem. Computer models would be better tailored and more streamlined to meet specific decisionmaking needs. The time and effort of forest analysts would be able to focus on developing a more in-depth understanding of the data specifically relevant for the decisions to be made and communicating that information to the public and decisionmakers.

Although paragraph (d) would provide enhanced flexibility to tailor analysis to meet local needs, this should not be interpreted as de-emphasizing the importance of sound analysis nor to imply that less analysis will occur. Although these provisions are certainly intended to reduce the amount of unproductive or counterproductive analysis, they may or may not reduce the overall quantity of analysis conducted on any given forest. Similarly, by limiting the Regional Forester to only generally accepted analysis and evaluation methods, the quality and validity of analysis conducted is safeguarded. This is not intended to inhibit the use of innovative or state-of-the-art analysis methods, but rather to assure that any methods used are scientifically sound. Revision of the agency's planning direction (FSM 1920) in concert with adoption of a final rule will provide Forest Service personnel more specific direction regarding generally accepted methods of analysis. This direction will be available for

public review and comment prior to being finalized.

Paragraph (e) would provide requirements for the programmatic environmental impact statement which would accompany each forest plan revision. The no-action alternative would be described based on the current plan using analytical techniques comparable to those used for other alternatives. Actual outputs and effects resulting from forest plan implementation would be displayed for comparative purposes.

Although it might seem logical to simply use the outputs and effects in the current plan to describe the no-action alternative, such an approach would be misleading and confusing. First, the data and analytical procedures available for forest plan revision are likely to be improved from those used in the initial development of the plan. Therefore, the no-action alternative should be evaluated using comparable data and techniques to provide a good basis for comparison with the other alternatives. Secondly, during revision, the public is able to relate to what actually happened during plan implementation, not what was supposed to happen. In some cases, these may be notably different. Thus, the actual outputs and effects would be provided to allow a basis for comparing alternatives to what actually occurred when the current plan was implemented.

Paragraph (e)(1)(ii) would require a display of environmental, social, and economic effects and clarifies that the total effect of the proposed changes on the entire forest management program will be displayed. This provision provides a fundamental distinction between revision and major amendment. Although revision focuses on only those aspects of the plan which need changes, the effects on the entire forest management program would be displayed. For example, if the only aspect of a forest plan which needed to be changed during revision involved the standards and guidelines for developed recreation, then only the standards and guidelines for developed recreation would vary among the alternatives. The effects of the alternatives would be displayed for the entire forest program, however, with all other aspects of the forest program remaining constant among alternatives, unless affected by the developed recreation standards and guidelines. For example, the outputs of all other resources, projected economic effects, etc. would be displayed for all alternatives. This approach is designed to support the principle of integrated resource planning as required by NFMA.

The economic requirements of paragraph (e)(1)(iii) would list five displays required in the EIS. These are intended to provide a measure of the efficiency of plan alternatives and an estimate of their effects on income, employment, and receipt shares to State and local governments. Although this provision retains the role of economic considerations in forest planning required by NFMA, it does represent some change in the way the economic analysis would be conducted.

The most important change is that benchmark analysis previously conducted as part of the Analysis of the Management Situation is no longer required. Volume 2 of the Critique, "National Forest Planning: Searching for a Common Vision," criticized the use of the benchmarks on the grounds that they overemphasized the role of economic efficiency analysis in planning. Others have criticized the benchmarks on the grounds that they frequently produce output estimates that are so far above or below the actual operating experience of the agency that they are of questionable utility in constructing feasible alternatives. Regardless of whether or not these criticisms are valid, the agency believes that the benchmarks are no longer routinely needed because they are inconsistent with an approach to plan revision that is based on "need for change". Benchmarks implicitly assume that all decisions in a forest plan need in-depth re-evaluation. Future revisions, in contrast, will focus analysis on only those aspects of the plan identified as needing change.

Similarly, the regulation no longer has detailed requirements for the range of alternatives that needs to be developed and for the procedures to be followed in the evaluation of these alternatives. With respect to the range of alternatives, plan revision would still be subject to NEPA rules, which require that a broad range of reasonable alternatives be developed to address the issues identified in the preliminary scoping process. Procedures for evaluating alternatives can be expected to vary from one forest plan revision to another, depending on the issues that each revision effort will address.

Paragraph (e)(1)(iv) would provide for a brief summary of the review and consideration given to the objectives and interests of other governments. This provision is similar to the requirements of § 219.7(c) in the existing regulation. Although less detailed in nature, this text should result in little or no substantive change from the current requirements.

Paragraph (e)(2) would describe provisions for public notice and comment of the proposed plan and draft EIS, approval of the final plan, determination of effective date, and appeal rights. There is no substantive change in this provision from the existing regulation.

Section 219.37 Forest plan amendment. This section provides for two types of amendments to forest plans. Major amendments would occur when there is a significant change to the plan or the relationship between multiple-use goals and objectives is substantially altered. Minor amendment occurs when the changes are of a less encompassing nature. The provision for two types of amendments is similar to the existing regulation, with the concept of "major amendment" paralleling the concept of "significant amendment" in the existing regulation. The adjective "major" was substituted for "significant" to avoid confusion with the term "significance" as used in the context of NEPA. The criteria for determining significance for NEPA compliance differs from criteria relevant for distinguishing the significance of amendments in compliance with NFMA, which has caused considerable confusion both within the agency and among the public.

This section would differ significantly from the existing regulation with regards to the analytical requirements associated with major amendment. The existing regulation requires the same process to be used for significant amendment as for revision and initial plan development; this section would eliminate this requirement. Both revision and major amendment would be based on the "need to change" concept rather than on "zero" based evaluation.

Revision would be distinguished from major amendment by two main factors. First, the circumstances warranting a revision have a more widespread impact on the forest plan so that the entire document needs to be reviewed to determine the aspects which need to be changed. In contrast, the degree of change needed to a forest plan for a major amendment is within definable limits and would not necessitate reviewing the entire plan. Secondly, the revision process requires that alternative evaluation address the forest program in its entirety, even though many elements of the program may remain constant among alternatives if there is no "need to change". The evaluation process for a major amendment is limited only to the changes being proposed and not the entire forest program.

Paragraph (b) would provide that a major amendment is always accompanied by an EIS, so that the

public is assured an opportunity to review and comment upon proposed major changes to the forest plan. Paragraph (c) provides that a minor amendment would be accompanied by an EIS only when the change is being made in conjunction with a project decision requiring an EIS. There is, however, a provision for public notice and, as required by the appeal regulation at 36 CFR 217.10(a), at least a seven day delay between the public notice of the decision and implementation of the minor amendment to allow an opportunity for administrative appeal. The absence of an EIS requirement for minor amendments reflects the more limited nature of changes made by minor amendment and the appropriateness of a more expeditious process for completing them.

Section 219.38 Interdisciplinary approach. An interdisciplinary team would be used for preparing forest plan amendments and revisions and for development of the annual monitoring and evaluation report. Team membership would be limited to Forest Service or other Federal government personnel, although other persons may be involved when specialized knowledge is not available on the team.

Although less detailed than the discussion of the interdisciplinary approach in the existing regulation (§ 219.5), this section represents no substantive change in the role of the interdisciplinary team. Consideration was given to allowing membership of the interdisciplinary team to be expanded to individuals not employed by the Federal government. Such a change would be responsive to findings of the Critique of Land Management Planning which indicated that more direct participation of other governments in the planning process would be beneficial ("Effectiveness of Planning Coordination", Vol. 6, p. 20). Interest has also been expressed by some members of the public that the involvement of private citizens as interdisciplinary team members could help to strengthen communication and meaningful participation.

The desirability of this approach was identified by the Committee of Scientists during development of the existing regulation (44 FR 26614; May 4, 1979). As was the case at that time, a major obstacle to expanding team membership to non-Federal individuals is the Federal Advisory Committee Act enacted by Congress in 1972. This Act imposes substantial procedural requirements on any advisory committee. An advisory committee may be described generally as any group that includes non-Federal employees that is established or utilized by Federal agencies for obtaining advice or recommendations on any matter. Examples of the procedural requirements include advance public notice of all meetings in the Federal Register and that all meetings be open to the general public.

Since membership by non-Federal employees would place interdisciplinary teams under the requirements of this Act, the ability of these teams to function in an efficient manner would be greatly reduced. Although the agency fully endorses the desired improvements in communication with the other governments and the public, membership on the interdisciplinary team is not viewed as a requisite to do so. In fact, it would be disadvantageous if expanded membership on interdisciplinary teams were to be viewed as providing some segments of the public better access to the planning process than was available to other segments. It is recognized that cooperating agencies do have interests and responsibilities which merit special coordination efforts, but interdisciplinary team membership does not appear to be a valid option for establishing such ties.

As a result, this section does not directly respond to the finding of the Critique. Instead, however, the text does allow the team to "involve other persons during appropriate steps in the process . . ." to clearly signal that the team is not to function in isolation when specialized knowledge can be gained from sources outside the team. It is believed this approach will allow meaningful communication with other governments and the public without the rigorous formality of a designated advisory committee.

Section 219.39 Public participation and government coordination. This section fully endorses the findings of the Critique of Land Management Planning which highlighted the critical role of on-going and meaningful public involvement and strengthened coordination with other Federal agencies and State, local, and Indian tribal governments. Paragraph (a) asserts the integral and on-going nature of public participation and government coordination. The on-going nature of involvement activities is echoed in other sections of the preliminary text, especially the requirement for an annual monitoring and evaluation report and the process used to initiate forest plan revision.

Paragraph (a) would strengthen the role of public participation and government coordination by clearly focusing the intent of such activities into three areas. First, conflict resolution is identified in recognition that the agency should actively seek ways of achieving informed consent among interested publics. Second, the paragraph would state that the intent is to inform and involve interested persons and groups in decisionmaking. Although this does not diminish the responsibility and authority held solely by agency personnel for management of the National Forests, it clearly signals that public involvement and coordination activities are not to be isolated undertakings kept distant from the decisionmaking process. Third, this paragraph recognizes the importance of coordination with the objectives of other governments. Unlike the existing regulation where coordination efforts were described for "other public planning efforts" (§ 219.7), this paragraph intentionally expands the focus to the broader term "objectives". This is more encompassing since coordination efforts are likely needed for a variety of on-going activities and policies rather than just other planning efforts.

The provision of paragraph (a)(1) for each Forest Supervisor to maintain a mailing list of interested individuals and organizations is intended to assure a means by which anyone can be informed of planning activities. The listing of specific government entities to be included on the list (§ 219.39(a)(1)(i)–(iv)) is similar to the listing at § 219.7(b) of the existing regulation.

Although the existing regulation had separate sections for public participation (§ 219.6) and coordination with other public planning efforts (§ 219.7), these topics are combined into one section. This is not intended to diminish the role or importance of either one, but rather reflects the relevance of the nature and intent of involvement activities to both the public and governments.

In developing this combined section, it was recognized that the Critique of Land Management Planning identified specific concerns related to cooperating agencies. In particular, cooperating agencies and governments felt they often had jurisdictions and authorities which merited a stronger distinction between their role in the process and that of the general public. This section in no way attempts to refute that perspective. In fact, the requirement in § 219.36(c)(3) would specifically identify the need for special coordination efforts with other agencies and governments and would add a new requirement for meeting with interested government

representatives during the public comment period for the proposed plan and draft EIS. This is directly responsive to a recommendation in the Critique Report on "Effectiveness of Planning Coordination" (Vol.6) to establish a formal coordination step between issuance of draft forest plans and final forest plans.

Section 219.40 Integrated resource management. This section would contain specific requirements for resource management. The provisions of this section are responsive to requirements of NFMA and do not attempt to encompass all of the laws, regulations, and Executive orders under which National Forests are managed. Integration of all such requirements would be beyond the reasonable scope of any one regulation and are unnecessary to repeat since compliance is already mandatory.

In contrast to the existing regulation which contained individual sections for each resource, all resource direction is integrated into one section. This in part is intended to reaffirm a strong commitment to the concepts of integrated resource management and an ecosystem approach to planning. Although such a restructuring is somewhat symbolic in nature, it represents an endorsement of these fundamental concepts and their important role in forest planning.

The opening paragraph would describe the purpose of this section as providing for an integrated, ecosystem approach to management and ensuring environmental protection and maintenance of the long-term productivity of the land. Paragraph (a) would direct that plans provide for integrated management and coordination of all resource uses and values on a multiple-use sustained-yield basis. It would provide a listing of various uses and values to be considered, in addition to providing for various support needs such as development and maintenance of infrastructure and land ownership.

These two paragraphs would establish the foundation for a fully integrated forest plan which provides direction for all resource uses and values. These provisions, in conjunction with the requirements of § 219.33(a), would assure that plans will address all resource uses and values through establishment of forest-wide multiple-use goals and objectives, forest-wide standards and guidelines, and management area prescriptions. As a result, forest plans would describe how all resources will be managed to achieve a desired future condition of the forest in addition to establishing standards and guidelines for environmental protection to assure the long-term productivity and sustainability of resources while the goals and objectives are being achieved.

In contrast to the existing regulation, this section does not define goals and objectives for specific resources nor prescribe requirements for how each resource will be evaluated during revision or amendment. Although direction of this nature may have been appropriate for guiding development of initial forest plans, it is not as relevant when revision is "need for change" based rather than a "zero" based effort. Any adjustments needed to the goals and objectives of a forest plan would be evident through monitoring and evaluation and included when identifying the "need to change" a forest plan as part of the revision process (§ 219.36(c)(1)). Similarly, the type and degree of analysis needed for evaluating each resource will vary depending on what aspects of the forest plan have been identified as needing change. Where analytical guidance is appropriate for various resource evaluations, appropriate directives will be issued in the Forest Service directives system.

Paragraph (b) describes how the diversity provision of NFMA (Sec.6(g)(3)(B)) will be achieved. This paragraph provides for diversity by defining four key resource requirements; conservation of threatened and endangered species, maintenance of viable populations by identifying and ensuring the conservation of sensitive species, protection of rare or unique biological communities, and providing the habitat capability to support populations of species at selected levels for commercial, recreational, scientific, subsistence, or aesthetic values. A fifth procedural provision supports these four resource requirements by requiring that management indicators be selected and monitored. Management indicators would include species or communities reflective of the four associated resource requirements.

The first requirement, conservation of threatened or endangered species, is based on provisions of the Endangered Species Act of 1973. The second requirement, maintenance of viable populations by identifying and ensuring the conservation of sensitive species, would require an assessment of potential impacts to species viability only for sensitive species. This is intended to focus viability evaluations on species whose viability is a concern rather than evaluating other species whose long-term persistence is not perceived to be at risk. Sensitive species would be designated in the forest plan by the Regional Forester for each forest planning area. The third requirement, protection of rare or unique biological communities, would recognize that diversity is reflected by communities and not just individual species. The fourth requirement, providing habitat capability for selected population levels of various species, is designed so that the forest plan determines the desired population levels of those species whose viability is not at particular risk. This determination would occur within the context of forest-wide multiple-use goals and objectives.

The fifth requirement, identification and monitoring of management indicators, is an essential procedural provision in support of the previous four resource requirements. By requiring monitoring of management indicators, there is a systematic means of assessing the achievement of the four resource requirements. By requiring monitoring "relative to the goals, objectives, and standards and guidelines established in the forest plan", flexibility is provided as to what is being monitored and how it is monitored. Depending upon how the goals, objectives, and standards and guidelines in the forest plan are described, either population numbers or habitat conditions could be monitored. This is intended to allow monitoring requirements to be suited to the nature of the species or community in question.

The concept of management indicators in this paragraph varies from the concept of management indicator species as described in the existing regulation (§ 219.19(a)(1)). First, this section does not portray management indicators to be ecological indicators. The concept of ecological indicators assumes that changes to an indicator species provides a valid reflection of changes to the welfare of a group of associated species. As evidenced by the "Keystone Report" ("Biological Diversity on Federal Lands—Report of a Keystone Policy Dialogue") and as discussed in a report of the Critique of Land Management Planning, "National Forest Planning Under RPA/NFMA: What Needs Fixing?" (Volume 11, p. 33–35), there is diminishing scientific support for this concept. Secondly, this paragraph expands management indicators to include biological communities and special habitats rather than being limited to only individual species. This recognizes the important role of biological communities in providing diversity and the ecological contributions of various structural elements within those communities.

The definition of viable population, as used in paragraph (b)(2) and defined at § 219.32, varies from the definition described in the existing regulation (§ 219.19). The definition of viable population in the existing regulation states that "a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area." The preliminary regulatory text would modify that definition to better address biological considerations. With the existing definition, individual National Forests are the spatial units within which viability must occur. Planning difficulties have been encountered with this requirement. Some species have populations whose space needs often include more than one National Forest. For these species, it is impossible to have viable populations on each National Forest. The current definition does not clarify intent for these cases.

The new definition defined at § 219.32 would state a viable population is "a population of plants or animals whose estimated number and distribution of reproductive individuals provides a high likelihood of continued existence, generally throughout its current range." It should be noted that in this definition current range becomes the spatial unit for population viability, and the problem of populations whose space needs include more than one National Forest would be overcome. By making home range the space where a population is defined, administrative boundaries would become unimportant in defining viability: population viability would become more an ecological consideration. With the condition that populations continue to exist generally throughout current range, the definition would be responsive to the intent for distribution of individuals and sub-populations. This definition generally would require existing population distribution but would allow reduced population densities.

Paragraph (c)(1) would provide direction for determining the allowable sale quantity (ASQ) and long-term sustained-yield timber capacity (LTSY). It prohibits the ASQ from exceeding LTSY unless necessary to meet overall multiple-use objectives. This is responsive to Section 13 of NFMA. This paragraph would also require, as a general rule, projected timber sale levels to be constant or increasing over time; i.e. once the ASQ is determined for the plan period, projected sale levels for future decades must equal or exceed the ASQ of the first decade. A similar provision, commonly known as non-declining yield, is in the existing regulation at § 219.16(a)(1). An exception to non-declining yield is provided in the paragraph if multiple-use objectives could be better attained.

Paragraph (c)(1) would also require projected sale levels for future decades to be based on regulated volume. Depending on stand conditions there is sometimes volume which is not regulated; i.e., it is not included in the growth and yield projections for growing stock, such as dead or down material. Although this non-regulated volume is a notable source of volume in some areas, it is difficult to properly calculate over time. Therefore, this provision was added to clarify that only regulated volume, which is readily predictable, would be included when projecting sale levels to be used in meeting the requirements for non-declining yield and LTSY.

Paragraph (c)(2) provides for a forest structure that enables perpetual timber yield. This is essentially a timber scheduling safeguard to ensure that there is sufficient growing stock at the end of the projection period (typically 150 years) to sustain the ASQ thereafter. This provision is similar to the existing regulation at § 219.16(a)(2)(iv) and is typically implemented through use of an "ending inventory constraint" in scheduling models.

Paragraph (c)(3) requires the accumulation of volume sold from suitable-scheduled lands over the decade of the plan period not to exceed the ASQ unless certain conditions for exceptions are met. This is responsive to Section 13 of NFMA. Another provision requires that only volume included in the calculation of ASQ is to be charged to the ASQ when sold. This ensures that any other volume sold will not be used to measure accomplishment of the ASQ during the decade.

Paragraph (c)(4) provides direction on how to determine the starting point for the ten-year period upon which the ASQ is based. This is in response to confusion which has occurred regarding whether the ten-year period starts upon signature of the Record of Decision, the effective date of the forest plan, or upon some interval aligned with normal Forest Service reporting procedures. This provision clarifies that the starting point will be aligned with the start of a fiscal year and further explains how this will be determined. This simplifies reporting procedures and reduces the confusion which could occur if recordkeeping requirements for the plan did not match normal agency reporting intervals.

Paragraph (c)(5) would establish a limit on the volume which may be sold annually if the ten-year period for the ASQ expires before the plan has been revised or amended. Such a provision is deemed necessary since the ASQ is only valid for a ten-year period even if the plan is not revised until after the tenth year. Although Section 6 of NFMA expressly allows a quantity in excess of the annual ASQ to be sold provided the decadal total is not exceeded, it states that provision in terms of "the decade covered by the plan." Once the tenth year is surpassed, the limitation imposed by the decadal total becomes meaningless. Therefore, this paragraph addresses how such a situation would be handled. It directs that the ASQ would be extended for the number of years anticipated until the forest plan is amended or revised by multiplying the average annual ASQ by that number of years. In addition, any shortfall in the achievement of the ASQ during the first ten years would also be permitted to be sold. This approach is intended to provide the same level and flexibility of timber sale volume as was permitted during the first decade of the forest plan.

Paragraph (c)(6) would describe circumstances under which two or more forests may be combined for the purposes of determining LTSY. This is responsive to section 13 of NFMA and reflects an interpretation of "commercial forest land" as the agency perceives Congress had intended.

Paragraph (c)(7) would require that all even-aged stands scheduled for harvest during the plan period will generally have reached culmination of mean annual increment of growth unless certain exceptions apply. This provision is responsive to Section 6(m)(1) of NFMA and is similar to § 219.16(a)(2)(iii) of the existing regulation. The requirement for completion of an EIS with a 90-day comment period prior to amending the forest plan to provide for certain other exceptions is intended to respond to the requirement of NFMA (Section 6(m)(2)) that requires specific public involvement procedures.

Paragraph (c)(8) would require a forest plan to include the planned timber sale program by displaying the ASQ and proportion of probable harvest methods for the decade. Section 6(f)(2) of NFMA requires plans to reflect the planned timber sale program. Since the forest plan is a programmatic document which does not commit to project decisions, it is beyond the scope of a forest plan to identify specific timber sale projects to be implemented during the plan period. Although a listing of possible timber sales for the ten-year plan period is

currently found in forest plans, such a display has proven to be misleading and is often interpreted to imply that the forest plan embodies site-specific timber sale decisions which are instead authorized later during project decision-making. Paragraph (c)(8) would not require such a listing of timber sales. Instead, the requirement to display the planned timber sale program would be met by describing ASQ and the proportion of probable harvest methods, two representative indicators of anticipated harvest activity which are consistent with the programmatic nature of a forest plan.

Paragraph (d) would provide for the identification of special conditions or hazards to the resources. This is responsive to section 6(g)(2)(c) of NFMA and reflects a restructuring of § 219.27(a)(2), § 219.27(a)(3) and § 219.27(a)(12) of the existing regulation. There is no substantive change from § 219.27(a)(2) or § 219.27(a)(3), although the latter has been abbreviated. The direction on air quality currently in § 219.27(a)(12) of the existing regulation has been rewritten to be more consistent with the requirements of the Clean Air Act.

Paragraph (e) would provide for the protection and conservation of soil and water resources. This is a fundamental aspect of providing for environmental protection and maintenance of the long-term productivity of resources. It reflects a merging of § 219.27(a)(1) and § 219.27(a)(4) of the existing regulation with no substantive change.

Paragraph (f) would impose five limitations on the use of even-aged management. Paragraph (f)(1) requires that clear-cutting be used only when determined to be the optimum method for sustaining important forest values identified in the forest plan. This is responsive to section 6(3)(F)(i) of NFMA. Paragraph (f)(2) requires that openings be shaped and blended, which is responsive to section 6(g)(3)(F)(iii) of NFMA and is similar to § 219.27(d)(1) in the existing regulation. Dispersion requirements currently issued in the regional guides would now be located in the forest plans.

Paragraph (f)(3) establishes provisions for maximum size of harvest areas. This is responsive to section 6(g)(3)(F)(iv) of NFMA and is similar to § 219.27(d)(2) in the existing regulation. Limitations presently issued in regional guides would be located in forest plans. The size limitations identified in the existing regulation would not be included in paragraph (f)(3). Recent research findings, as reflected by the "New Perspectives in Forestry" concept, have indicated there may be significant benefits to reconsidering the desirable size of clearcuts. In light of the changing scientific opinion on this topic, the prescriptive nature of the existing regulation appears potentially counterproductive to the concepts of integrated resource management. Therefore, rather than establishing such limitations through regulation, paragraph (f)(3) would provide that the limitations be established through the forest planning process. This approach would allow more flexibility to change as scientific knowledge continues to evolve. There is a requirement to complete an EIS and obtain Regional Forester approval prior to amending the forest plan for certain project-by-project exceptions. This is in order to comply with the requirement of NFMA assuring public review of such exceptions and approval by the line officer one level above the Forest Service officer who normally would approve the harvest proposal.

Paragraph (f)(4) would require that standards be set in the forest plan regarding dispersion of openings. This is similar to § 219.27(d)(1) in the existing regulation. Standards currently found in the regional guide would be located in the forest plan.

Paragraph (g) would impose two limitations on road construction. Paragraph (g)(1) is responsive to provisions of section 8(c) of NFMA and is similar to § 219.27(a)(10) of the existing regulation. Paragraph (g)(2) is responsive to provisions of section 8(b) of NFMA and is similar to § 219.27(a)(11) of the existing regulation.

Paragraph (h) would provide special attention to riparian zones. This is responsive to section 6(3)(E)(iii) of NFMA and is similar to § 219.27(e) of the existing regulation.

Section 219.41 Lands not suited for timber production. This section would describe procedures for identifying lands not suited for timber production. Paragraph (a) would clarify that suitability determinations are incorporated into forest plans through management area standards and guidelines, with verification of the determination occurring during project evaluation. This provision for project-level verification is based on the fact that the site-specific data needed for accurate suitability determinations is generally only obtained or confirmed during project planning. Therefore, although the forest plan would contain the best possible estimates of the quantity and location of unsuited lands, the final determination appropriately occurs at the project level.

Paragraph (b) would describe a two-staged process for identifying unsuited lands. First, it would list six criteria which would serve as an initial screen and which do not vary among alternatives. Lands which are not identified as unsuited during the initial screening are then evaluated during a second screening which reviews them in the context of alternatives and economic factors. Lands would be identified as unsuited during this second screening if standards and guidelines in the alternative preclude timber production. They would also be unsuited if, based on economic factors, timber production is clearly not feasible on the land. For both the first and second screening levels, that lands determined to be unsuited would be identified on maps, either in the forest plan or the planning records, or otherwise described in a manner in which they can be readily recognized.

The requirement for mapping or otherwise readily identifying unsuited lands is designed to facilitate the ten-year review of unsuited lands that is required by NFMA. Having these lands clearly identified provides an improved basis for determining if conditions have changed to the extent that they have become suitable. This also reflects how the ten-year suitability review would be focused on only those lands which were determined to be unsuited in the initial forest plan rather than a re-evaluation of the entire forest land base.

Eliminating lands from the suitable base due to economics is directly linked to the ability to map lands deemed uneconomic. NFMA requires that lands be identified as not suited for timber production considering "physical, economic, and other pertinent factors to the extent feasible * * *" (Section 6(k)). The proper method for including economic considerations has been subject to much debate during and subsequent to development of the existing regulation. This section takes a simpler approach which is intended to be more effective in meeting the intent of NFMA.

In contrast to the existing regulation which screens unsuited lands based on their contribution to cost-efficiency in meeting overall forest objectives, this section removes the economic screen from the influences of changing management objectives and fluctuating conditions. Previously, the amount of land screened out as unsuited due to economics was dependent on the goals and objectives of the alternative as well as the numerous assumptions needed to build the models to perform forest-wide cost efficiency analysis. As a result, any change in the data regarding management costs, output values, or

other analytical data potentially triggered a different "answer" regarding unsuited lands.

This section uses the economic screen to identify where "timber production is clearly not feasible on the land now or in the future" (§ 219.41(b)(2)(ii)). It is not intended to eliminate marginally economic lands that would tend to shift from suitable to unsuitable designation based on analytical assumptions or market conditions which are likely to fluctuate over time. Instead, the lands excluded by the economic screen are those for which there is no reasonable expectation that they could ever be marketable even as conditions change. By having those lands specifically identifiable on maps or other means by which they would be readily recognizable, the public can more easily review the results of this screen to assess whether the lands are "clearly not feasible" for timber production. This shifts the determination to consideration of tangible on-the-ground conditions rather than the subtleties of varying economic assumptions in scheduling models.

In conjunction with changes in the economic screen, paragraph (b)(3) introduces the new concept of "suitable-scheduled" and "suitable-unscheduled" lands. "Suitable-scheduled" lands are needed for timber production and used in determining the ASQ and long-term sustained-yield timber capacity. In contrast, "suitable-unscheduled" lands are not needed to meet the goals and objectives of the forest plan, including financial and economic considerations, or there is a need to defer a determination of their suitability. These lands are not used in determining the ASQ or long-term sustained-yield timber capacity.

This is the point at which consideration would be given to factors such as fluctuating market demand or the role of timber production within the overall set of goals and objectives for the forest. For example, if the supply capabilities of a forest exceed the market demand for timber, the lands which are not needed to meet market demand (as expressed through the objectives of the forest plan) would be identified as "suitable-unscheduled".

Similarly, it is at this point that consideration is given to the relative costs and benefits of the timber sale program. Forest Service policy as set forth on page 5.28 of "The Forest Service Program for Forest and Rangeland Resources: A Long-Term Strategic Plan" (Recommended 1990 RPA Program, USDA. Forest Service, May 1990) states that "the benefits of commercial timber sale programs for individual national forests will exceed the costs of the timber program." The Forest Service envisions a process of monitoring costs and benefits over time and making necessary adjustments to the timber sale program through procedures for amendment and revision of forest plans. The Forest Service will soon publish a notice in the **Federal Register** containing a detailed description of how this policy will be implemented and its relationship to forest planning. The public will have an opportunity to comment on this forthcoming notice. Those comments will be used in finalizing procedures for implementing the policy. They will also be used, to the extent applicable, when developing the proposed rule at 36 CFR part 219, subpart B.

The "suitable-unscheduled" determination would be appropriate when there is a need to defer the determination of suitability. For example, this would apply if there is inadequate scientific information currently available to determine whether a portion of the land-base would be needed for an over-riding multiple-use objective, such as protection of an endangered species. In these situations of uncertainty where results of scientific studies or other evaluations are expected to become available within the reasonably distant future, the "suitable-unscheduled" category would be appropriately used.

Paragraph (c) would impose the same limitations on harvesting "suitable-unscheduled" lands as is imposed on unsuited lands. A ten-year review of unsuited lands would be required, however, whereas the "suitable-scheduled" and "suitable-unscheduled" designations would be addressed through normal revision or amendment procedures.

In total, this section would establish a process for identifying unsuited lands which is simpler, more easily verified due to its specificity in identifying unsuited lands, and less subject to fluctuating analytical assumptions. As a result, the ten-year review would focus on determining if conditions have changed on unsuited lands rather than re-evaluating the entire land base in the context of overall forest objectives and conditions. This would expedite the review process and is consistent with the requirements of NFMA. The impact of fluctuating economic conditions and other changing factors is still recognized, but in the context of scheduling suitable lands rather than as a factor in identifying unsuited lands. Thus, the more complex forest-wide analysis associated with these fluctuating conditions need not occur at the time of the ten-year suitability review.

Section 219.42 Evaluation for special designations. Paragraph (a) would require that roadless, undeveloped areas be evaluated for wilderness designation during forest plan revision unless Federal legislation provides contrary direction. Roadless, undeveloped areas are defined to be at least 5000 acres in size unless contiguous to existing or Administration-endorsed units of the National Wilderness Preservation System. Due to the differing conditions in the eastern part of the country, a provision is added so that the size limitation does not apply east of the 100th meridian.

Paragraph (b) of this section provides for evaluation of eligibility for wild and scenic river designation during revision if legislation requires such an evaluation or there is new information or changed conditions which indicates a need to change the forest plan. Although wild and scenic rivers were not addressed in this existing regulation, this addition was made since recommendations for wild and scenic river designation, as is the case for wilderness, are made in forest plans with the final decision made by Congress.

Paragraph (c) provides direction for considering Research Natural Areas during forest plan revision and is substantively unchanged from the existing regulation at § 219.25.

Conclusion

The text of preliminary subpart B, which is being offered for consideration and discussion, is set out in full at the end of this Notice. The Forest Service is interested in hearing from individuals, organizations, other public agencies and governments, and Forest Service personnel about the approach described in this Advanced Notice of Proposed Rulemaking. To aid in analysis of comments, it would be helpful if reviewers would key their comments to specific sections or topics. Respondents should also know that in analyzing and considering comments, the Forest Service will give more weight to substantive comments than to simple "yes", "no", or "check off" responses to form letter/questionnaire-type submissions.

Dated: February 6, 1991.

F. Dale Robertson,

Chief.

PART 219—PLANNING, SUPART B—IMPLEMENTING AND CHANGING LAND AND RESOURCE MANAGEMENT PLANS

Sec.

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Section 219.30 Purpose and principles.

(a) The regulations in this subpart set forth the procedures for fulfilling the requirements for land and resource management planning (hereafter, forest planning) set forth in the Forest and Rangeland Renewable Resources Planning Act of 1974 (hereafter, "RPA") as amended by the National Forest Management Act of 1976 (hereafter, "NFMA"). Specifically, these rules address:

(1) How forest plans are to be implemented, amended and revised;

(2) How forest plans relate to project decisionmaking;

(3) How forest plans relate to compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321) (hereafter "NEPA") and implementing regulations; and

(4) How forest plans fit within the agency's overall resource planning and decisionmaking framework.

(b) These rules reflect the statutory and administrative principles which guide National Forest System resource planning and management.

(1) The National Forest System is to be managed for the multiple-use and sustained-yield of goods, services, and environmental and amenity values in an ecologically sound manner in order to meet the needs and desires of the American people.

(2) Forest planning occurs within an overall resource planning and decisionmaking framework, ranging from the development of broad guidance at the national and regional level to site-specific resource decisions at the project level.

(3) A forest plan provides the framework for establishing how a National Forest will be managed to fulfill its multiple-use role while integrating environmental and economic factors.

(4) Forest planning requires an interdisciplinary approach to ensure the integration of multiple-use values and understanding of ecosystem relationships.

(5) On-going and open communication with the public and other Federal agencies and State, local, and Indian tribal governments is an integral and vital part of forest plan implementation, monitoring and evaluation, amendment, and revision.

(6) Forest plans should provide for continuity of forest management while being dynamic documents which can be readily and efficiently adjusted in response to changing conditions and new information in a manner that reflects the need to gradually phase in changes which have significant impacts on people and communities.

(7) Forest plan revision should primarily focus on those aspects of the forest plan meriting reconsideration.

(8) Monitoring and evaluation play a key role in the adaptive nature of forest plans by indicating when changes may be required.

(9) Forest planning should be understandable and timely in order to enhance meaningful public participation and result in sound, responsive resource decisions.

(10) The analysis and evaluation associated with forest planning should be integrated with NEPA compliance and should be commensurate with the nature of the decisions being made.

Section 219.31 Applicability and transition.

(a) The regulations of this subpart are applicable to the National Forest System as defined by 16 U.S.C. 1609. Their provisions are effective February 15, 1991, except as follows:

(1) Any forest plan which was under development but not completed at the time of issuance of this subpart remains subject to the requirements of 36 CFR part 219, subpart A, until such time as the forest plan is approved.

(2) The Regional Guide for the Pacific Southwest Region shall remain subject to the requirements of 36 CFR part 219, subpart A, until such time as all forest plans in the Region are approved. At that time, the Regional Guide shall become subject to the requirements of paragraph (d) of this section.

(3) The requirements of § 219.41 and § 219.42 of this subpart shall not trigger the need to amend or revise a forest plan prior to such time as a forest plan revision has been initiated in accordance with the rules of this subpart.

(b) Any amendment or revision begun under the rules of subpart A of this part shall be prepared and completed in accordance with the rules of this subpart.

(c) Notwithstanding the use of the term "forest plan" in these regulations, the provisions of this subpart apply to all components of the National Forest System including, but not limited to, the National Grasslands. One forest plan may be prepared for all lands for which a Forest Supervisor has responsibility; or separate forest plans may be prepared for each National Forest, or combination of National Forests, within the jurisdiction of a single Forest Supervisor. Also, a single forest plan may be prepared where one National Forest is administered by several Forest Supervisors.

(d) Within two years of February 15, 1991, the Regional Forester shall identify a process and timetable for phasing out the existence of the regional guide prepared under Subpart A of this part. The Regional Forester may utilize appropriate methods as described by § 219.33(d)(2) and § 219.33(d)(3) of this subpart in order to maintain those aspects of the regional guide for which there is an on-going regional need or to develop new regional direction. The Regional Forester shall publish a notice in the **Federal Register** briefly summarizing a draft version of the process and timetable and shall provide an opportunity for the public to review and comment. At a minimum, the Regional Forester shall provide a 60-day comment period for the review. After consideration of the public comments, the Regional Forester shall publish a notice in the **Federal Register** describing the final version of the process and timetable that will be used for phasing out the regional guide.

Section 219.32 Definitions.

For purposes of this subpart the following terms shall mean:

Allowable sale quantity: The maximum quantity of timber that may be sold for a decade from suitable-scheduled lands covered by the forest plan.

Class I Area: A geographic area designated for the most stringent degree of protection from future degradation of air quality. The Clean Air Act designates as mandatory Class I areas each National Park over 6,000 acres and each National Wilderness over 5,000 acres that existed as of the date of

enactment (August 7, 1977). Wilderness and additions to Wilderness designated by law after this date are not Class I areas unless they have been redesignated as such.

Diversity: The distribution and abundance of plant and animal communities and species within the land area controlled by the forest plan.

Environmental and amenity values: Valued aspects of our natural and cultural heritage. In an economic framework, these values may include user values, existence values, and option values.

Evaluation: When used in the context of monitoring and evaluation, the analysis and interpretation of information collected through monitoring.

Even-aged management: The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. The difference in age between trees forming the main canopy level of a stand usually does not exceed 20 percent of the age of the stand at harvest rotation age. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

Forested land: Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for non-forest use.

Goal: A concise statement that describes a desired future condition normally expressed in broad, general terms that are timeless, in that there is no specific date by which the goal is to be achieved.

Goods and services: The various commodities and uses obtained from forest and rangeland resources.

Infrastructure: The facilities, utilities, and transportation systems needed to meet public and administrative needs.

Integrated pest management: A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed. A basic principle in the choice of strategy is that it be ecologically compatible or acceptable.

Long-term sustained-yield timber capacity: The highest uniform wood yield from suitable-scheduled lands that may be sustained in perpetuity consistent with the forest plan.

Management area: An area mapped in the forest plan to which one or more management prescriptions are applied.

Management indicators: Plant or animal species, communities, or special habitats selected for emphasis in planning and monitored during forest plan implementation to assess the effects of management on their conditions and trends.

Management practices: A specific activity, course of action, or treatment undertaken on a National Forest.

Management prescription: A composite of the specific multiple-use direction applicable to all or part of a management area that generally includes, but is not limited to, goals, objectives, standards and guidelines, and probable management practices.

Monitoring: The collection of information generally on sample basis to determine the effects of resource management.

NEPA procedures: As used in this subpart, the process by which a responsible official complies with the requirements of the National Environmental Policy Act of 1969, as implemented by the requirements of 40 CFR Parts 1500 through 1508 and supplemented by the Forest Service NEPA procedures (Forest Service Manual 1950 and Forest Service Handbook 1909.15) issued through the Forest Service Directives System (36 CFR part 200).

Objectives: Concise, time-specific statements of measurable planned results that respond to goals.

Planning area: The area of the National Forest System controlled by a decision document.

Plan period: The period of time for which a forest plan is in effect, normally 10 years but no longer than 15 years.

Present Net Value: The difference between the discounted value (benefits) of all outputs to which monetary values or established market prices are assigned and the total discounted costs of managing the planning area.

Programmatic environmental impact statement: The document disclosing the environmental consequences of a program or plan which guides or prescribes the use of resources, allocates resources, or establishes rules and policies in contrast to disclosure of the environmental consequences of a site-specific project.

Project: One or more site-specific activities designed to accomplish a specific, on-the-ground purpose or result.

Regulated Volume: The quantity of timber in the allowable sale quantity that is based on the growth and yield projections for growing stock.

RPA Assessment and Program: The RPA Assessment is prepared every ten years and describes the potential of the nation's forests and rangelands to provide a sustained flow of goods and services. The RPA Program is prepared every five years to chart the long-term course of Forest Service management of the National Forests, assistance to State and private landowners, and research. They are prepared in response to Sections 3 and 4 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA)(16 U.S.C. 1601).

Responsible Official: The Forest Service employee who has the delegated authority to make a specific decision.

Sensitive species: Plant and animal species designated in the forest plan by the Regional Forester which require special consideration to assure viable populations.

Special habitats: Structural elements of ecosystems. These may include, but are not limited to, snags, spawning gravels, fallen trees, aquatic reefs, caves, seeps, and springs.

Standards and Guidelines: Requirements which preclude or impose limitations on resource management activities, generally for the purposes of environmental protection or public safety.

Suitable-scheduled lands: Lands suitable and scheduled for timber production and which are in the land base for the calculation of the allowable sale quantity and long-term sustained-yield timber capacity.

Suitable-unscheduled lands: Lands suitable but not scheduled for timber production and which are not in the land base for the calculation of the allowable sale quantity nor long-term sustained-yield timber capacity.

Timber production: The purposeful growing, tending, harvesting, and regeneration of trees for industrial or consumer use.

Uneven-aged management: The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes. Cutting methods that develop and maintain uneven-aged stands are single-tree selection and group selection.

Viable population: A population of plants or animals whose estimated number and distribution of reproductive individuals provides a high likelihood of continued existence, generally throughout its current range.

Section 219.33 Resource planning and decisionmaking framework.

(a) *Forest Planning and Programmatic Decisionmaking.* Forest plans are broad, programmatic documents which provide the framework for how a National Forest will be managed, but generally do not provide final authorization for irretrievable resource commitments.

(1) Forest plans shall:

(i) Establish forest-wide multiple-use goals and objectives.

(ii) Establish forest-wide standards and guidelines.

(iii) Delineate management areas and associated management prescriptions.

(iv) Identify lands not suited for timber production (§ 219.41).

(v) Establish monitoring and evaluation requirements (§ 219.35).

(2) Forest-wide objectives represent estimates of the goods, services, or activities intended to be produced or achieved during the plan period. Attainment of the objectives is dependent upon funding, market conditions, and other variable factors. In case of conflict between achievement of objectives or adherence to the standards and guidelines as required by § 219.34(b) of this subpart, the standards and guidelines shall take precedence unless the forest plan is amended or revised.

(b) *Project Decisionmaking.* Authorization of site-specific activities within a National Forest normally occurs through project analysis and decisionmaking. Site-specific projects include proposals received from outside the agency as well as those initiated by the agency.

(c) *NEPA Compliance.*

(1) *Forest planning.* In order to provide for environmental analysis and disclosure commensurate with the nature of the decisions being made in forest plans, a programmatic environmental impact statement shall accompany a forest plan revision or major amendment and be prepared in full compliance with and concisely disclose the information required by NEPA.

(2) Project decisionmaking. Project decisionmaking generally requires environmental analysis, disclosure, and decision documentation separate from forest planning. Since it is normally project decisions, rather than forest plans, which authorize the irretrievable commitment of resources, project decisions shall be accompanied by site-specific disclosure of environmental effects in accordance with NEPA procedures. This site-specific disclosure shall be tiered to applicable environmental disclosure in the programmatic environmental impact statement accompanying the forest plan. The Regional Forester may approve a site-specific project in a Record of Decision for a forest plan revision or major amendment only if the environmental consequences of the proposed project and alternatives to the proposed project are specifically disclosed in the final environmental impact statement accompanying the forest plan.

(d) *Relationship of Forest Planning to Other Resources Planning and Decisionmaking.* Forest planning is the mechanism by which other levels of resource planning and decisionmaking are integrated into the on-the-ground management of a National Forest. Forest planning responds to:

(1) Laws, regulations, and Executive orders.

(2) Direction issued through the Forest Service Directives System (36 CFR part 200).

(3) National, inter-regional, regional, or sub-regional planning and decision documents. These include, but are not limited to:

(i) The Renewable Resource Assessment and Program. Regional Foresters and Forest Supervisors shall consider updates due to the RPA Program during monitoring and evaluation.

(ii) Resource management decisions issued on an interregional. regional, or subregional basis such as forest pest management strategies or management of ecosystems that cross forest or regional boundaries. Such decisions shall be effective on a particular unit of the National Forest System only upon incorporation into the forest plan through amendment or revision.

Section 219.34 Forest plan implementation and consistency.

(a) Implementation. Forest plans are implemented through activities undertaken at the project level. Project approval involves additional NEPA compliance and decisionmaking and requires a determination that the project is consistent with the forest plan (§ 219.34(b)).

(b) *Consistency.* A determination of consistency with the forest plan shall be based on adherence to the forest-wide standards and guidelines and the standards and guidelines contained in the management prescriptions of the forest plan (§ 219.33(a)).

(1) Resources plans and permits, contracts, and other instruments issued for the use and occupancy of National Forest System lands shall be consistent with forest plans When a forest plan is revised, resource plans and permits, contracts, and other instruments shall be revised as necessary and as soon as practicable to be made consistent with the revised plans. Any revision in present or future permits, contracts, and other instruments made pursuant to this section shall be subject to valid existing rights

(2) A determination of the consistency of a project with the forest plan shall be included in the decision documentation when approving a project, and such determination is subject to appeal in accordance with the provisions of 36 CFR part 217 or 36 CFR part 251. Subpart C.

(3) The decision document for any revision or amendment to a forest plan shall address the applicability of the amendment or revision to any projects for which a decision has been issued or for activities which were under permit, contract, or other instrument for occupancy and use of National Forest System lands prior to approval of the amendment or revision. Any resulting modification of a permit, contract, or other instrument for occupancy and use of National Forest System lands may be subject to appeal under 36 CFR part 251, Subpart C

(i) Such projects, permits, contracts, or other instruments for occupancy and use of National Forest System lands may be exempted from applicability to an amendment or revision provided such instruments are specifically identified in the decision.

(ii) Unless excluded by paragraph (b)(3)(i) of this section, prior to issuing a permit, contract, or other instrument for occupancy and use of the National Forest System, the responsible official shall determine and document the consistency of such previously approved projects with the newly amended or revised plan. The consistency determination is not appealable unless the project authorization has been changed by issuance of a new decision subject to appeal under 36 CFR part 217.

(4) If a proposed project does not meet consistency requirements, the responsible official may, subject to valid existing rights, either:

(i) Modify the proposal to make it consistent with the forest plan;

(ii) Reject the proposal; or

(iii) Amend the forest plan to permit the proposal.

(5) In situations involving valid existing rights, the determination of consistency must consider applicable statutory and regulatory authorities.

(c) *Implementation During Amendment or Revision Process.* An existing approved forest plan, as amended, remains effective until the approval of an amendment or revision. Lands are to be managed consistent with the existing approved forest plan during the amendment or revision process.

(d) *Implementation During Stay.* In the event that implementation of an amendment or revision to a forest plan

is stayed as the result of an administrative appeal, the Forest Supervisor shall manage the Forest in accordance with non-stayed provisions of the approved forest plan. For those sections of the plan affected by the stay, the Forest Supervisor shall manage in accordance with the immediately previous version of the forest plan unless the Reviewing Officer directs otherwise.

(e) *Budget.* The Forest Supervisor shall develop budget proposals based on the forest plan and shall strive for the efficient and effective use of available funds to implement the plan and specific provisions of the Annual Appropriations Act.

Section 219.35 Forest plan monitoring and evaluation.

(a) Each forest plan shall provide for the systematic monitoring and periodic evaluation of the effects of implementing the management direction in the forest plan in order to determine:

(1) If changes are needed in how the forest plan is being implemented, and

(2) If amendment or revision of the forest plan is needed.

(b) As a minimum, forest plan monitoring and evaluation requirements identified in the forest plan shall provide for assessing, on a sample basis where appropriate, whether:

(1) Projects are being implemented in accordance with the decision document authorizing the project.

(2) The activities occurring during plan implementation are effective in achieving the intended results of the forest plan.

(3) New information has become available which substantially affects the validity of the forest plan.

(c) As part of monitoring and evaluation, the Forest Supervisor shall:

(1) Identify current and anticipated inventory needs and provide for obtaining necessary data.

(2) Identify research needs to ensure management practices do not produce substantial or permanent impairment of the productivity of the land.

(3) Assess whether laws, regulations, Executive orders, Forest Service directives, or other Forest Service decision documents issued subsequent to approval of the forest plan indicate a need to consider changing the forest plan.

(d) Beginning the first full fiscal year after February 15, 1991 the Forest Supervisor shall prepare an annual monitoring and evaluation report, transmit it to the Regional Forester, and make it available to interested individuals, organizations, government agencies, and public officials. The annual report shall:

(1) Summarize the results of monitoring and evaluation, and

(2) Indicate whether there is a need to amend or revise the plan or change how it is being implemented

(e) The requirement for an annual monitoring and evaluation report shall not preclude initiating a forest plan amendment or revision at any time deemed necessary.

Section 219.36 Forest plan revision.

(a) *Initiation.* Revision of a forest plan shall ordinarily occur about every 10 years, but no later than 15 years, from the date of approval of the current plan. Otherwise, revision shall occur when conditions in a unit have significantly changed to the extent that fundamental parts of the forest plan are no longer appropriate to implement. Circumstances that could indicate revision is warranted include, but are not limited to:

(1) Catastrophic natural events that substantially alter resource conditions over most or all of the planning area; and

(2) Changes that have an important effect on the entire forest plan or affect the management of the land and resources throughout a large portion of the area covered by the forest plan.

(b) Responsibility. The Regional Forester is the responsible official for forest plan revision.

(c) *Public Notice of Revision.* The Regional Forester shall publish in the **Federal Register** a notice of intent to revise the forest plan and to prepare an environmental impact statement.

(1) The notice of intent shall identify the provisions of the current plan being proposed for change, a summary of the analytical procedures anticipated to be used, a brief description of the alternatives anticipated to be considered, and the anticipated timetable for completion and shall provide a minimum of a 30-day comment period.

(2) In addition to publication of a notice of intent, the Forest Supervisor shall provide notice of the revision of a forest plan to all individuals and organizations on the mailing list described at § 219.39(a)(1) of this subpart.

(3) The Forest Supervisor shall meet, or designate a representative to meet, with interested representatives of other Federal agencies and State, local, and Indian tribal governments at the beginning of the revision process to establish procedures for coordination and ongoing communication throughout the process. As a minimum, the Forest Supervisor shall provide the opportunity to meet again with interested government representatives during the public comment period for the review of the proposed forest plan revision and draft environmental impact statement. Coordination efforts with governments shall be briefly summarized in the environmental impact statement.

(d) *Analysis.* The Regional Forester shall ensure a systematic process using environmental, social, and economic analysis commensurate with the requirements of § 219.33(a) of this subpart. The Regional Forester shall determine the level and type of analysis appropriate, commensurate with the data available, to adequately disclose trade-offs and to make an informed decision, limiting selection of analytical procedures to generally accepted methods.

(e) *Programmatic Environmental Impact Statement.* The interdisciplinary planning team shall prepare the programmatic environmental impact statement to accompany revision of a forest plan in accordance with the following requirements:

(1) *Display of Alternatives and Environmental Consequences.* The environmental impact statement shall display a range of alternatives and describe the environmental consequences.

(i) The no-action alternative shall be a continuation of the current forest plan and shall be described as follows:

(A) Future outputs and effects shall be projected based on the current plan using analytical procedures comparable to the procedures used to analyze the other alternatives.

(B) The actual outputs and known quantitative effects which resulted from monitoring and evaluation of plan implementation shall be displayed for comparative purposes.

(ii) Estimated environmental, social, and economic effects of each alternative shall be described and displayed; that is, the total effect of the proposed changes on the entire forest management program shall be displayed.

(iii) The description of each alternative in the environmental impact statement shall include a display of the following:

(A) Indicators of investment performance, including present net value.

(B) Averages annual federal expenditures and revenues including cash receipts.

(C) Income and employment projections.

(D) Anticipated receipt shares to State and local governments.

(E) Quantitative or qualitative estimates of outputs or effects not assigned market values.

(iv) The environmental impact statement shall briefly summarize review and consideration of the objectives and interests of other Federal agencies and State, local, and Indian tribal governments. affected by resource management activities in the planning area.

(2) *Public notice and comment.* The Regional Forester shall:

(i) Make the draft environmental impact statement and proposed revised forest plan available for public comment for at least 90 days, at convenient locations in the vicinity of the lands covered by the plan, beginning on the date of publication of the notice of availability of the draft environmental impact statement in the **Federal Register.** Copies shall also be available at the office of the Chief of the Forest Service in Washington, DC.

(ii) Following public comment, oversee preparation of a final environmental impact statement and revised forest plan. A record of decision that documents approval of the revision shall be prepared in accordance with NEPA procedures (40 CFR 1505.2).

(iii) Provide public notice of the approval of the revised forest plan in a newspaper of general circulation identified pursuant to the requirements of 36 CFR 217.5. The approved revision shall not become effective until 30 days after the date of public notice.

(f) *Appeal.* The decision to approve a forest plan revision is subject to appeal under the procedures of 36 CFR part 217.

Section 219.37 Forest plan amendment.

(a) *Initiation.* Amendment is appropriate when specific provisions of a forest plan have been identified as needing change. Amendments shall be categorized as either major or minor.

(b) *Major Amendment.* Major amendments shall occur when there is a significant change to the plan but the extent of the change does not warrant a revision (§ 219.36). A 90-day period shall be provided for public review and comment of a major amendment and accompanying environmental impact statement addressing the effects of the proposed amendment.

(1) The effective date shall be determined in the same manner as for approval of a revision (§ 219.36(e)(2)(iii)).

(2) The Regional Forester shall be the responsible official.

(3) Circumstances that could indicate a major amendment is warranted include, but are not limited to:

(i) Changes that significantly change the forest plan but the extent of change is within definable limits and a revision of the entire forest plan is not needed; or

(ii) Changes that substantially alter the relationship between multiple-use goals and objectives.

(c) *Minor Amendment.* A minor amendment shall occur when there is a need to make changes to the forest plan which are not significant enough to warrant a major amendment. An environmental impact statement will not be required for a minor amendment, unless the amendment is being made in conjunction with a project decision which requires preparation of an environmental impact statement in accordance with NEPA.

(1) Notice of all minor amendments shall be provided in a newspaper of general circulation in accordance with 36 CFR part 217. A minor amendment shall be effective no sooner than 7 days after the date of public notice.

(2) The Forest Supervisor shall be the responsible official.

(3) Circumstances that could indicate a minor amendment is warranted include, but are not limited to:

(i) A need to correct minor factual errors in the plan.

(ii) Conditions at a project location warrant a site-specific exception to the forest plan.

(iii) Minor adjustments in management area boundaries or management prescriptions are needed.

(d) *Appeal.* A decision to amend a forest plan is subject to appeal under the procedures of 36 CFR part 217.

Section 219.38 Interdisciplinary approach.

An interdisciplinary team shall be used to amend or revise the forest plan and to develop the annual monitoring and evaluation report. The team, whose members shall represent resources and/or disciplines relevant to the planning area, shall integrate knowledge of the physical, biological, economic and social sciences and environmental design arts. The team may consist of whatever combination of Forest Service and other Federal government personnel is necessary to achieve an interdisciplinary approach and may involve other persons during appropriate steps in the process when specialized knowledge does not exist within the team itself.

Section 219.39 Public participation and government coordination.

(a) Public participation and coordination with other Federal agencies and State, local, and Indian tribal governments is an integral and ongoing part of the implementation, monitoring and evaluation, amendment, and revision of forest plans. The intent is to inform and involve interested parties in land and resource management decisionmaking, to provide for recognizing and coordinating forest management with the objectives of other governments, and to encourage conflict resolution. To the extent practicable, planning activities should be coordinated with owners of lands that are intermingled with, or dependent for access upon, National Forest System lands. To enhance awareness of involvement opportunities, the Forest Supervisor shall:

(1) Maintain a list of individuals, organizations, government agencies, and public officials who have indicated a desire to be informed about forest planning or project activities on the Forest. This shall include:

(i) Designated representatives of other affected Federal agencies.

(ii) The official or agency so designated as a clearinghouse for the affected State(s) agencies, including, if applicable, the Commonwealth of Puerto Rico.

(iii) Designated representatives of Indian tribal governments and Alaska natives.

(iv) Designated representatives of local county or municipal governments.

(2) Periodically provide notice to the general public of the opportunity to be included in the listing. This notice may be achieved in concert with the public notice requirements for the annual monitoring and evaluation report.

(b) The Forest Supervisor shall develop and maintain planning records that document the process to amend or revise the forest plan. Disclosure of information in the planning records is subject to the provisions of the Freedom of Information Act.

(c) Copies of forest plans shall be available for public review at all Forest Service offices on the Forest, in the respective Regional Office, and at one or more additional locations, to be determined by the Forest Supervisor, that will offer convenient access to the public

Section 219.40 Integrated resource management.

Forest planning shall provide an integrated, ecosystem approach to

resource management, ensure environmental protection, and maintain the long-term productivity of the land in accordance with the provisions of this section. Some of these provisions are applicable only to forest plans, while other requirements will be recognized during forest planning but become specifically applicable during project decisionmaking.

(a) Forest plans shall provide for integrated resource management and coordination of all resource uses and values on a multiple-use and sustained-yield basis. Management direction shall be established for applicable resource uses or values including, but not limited to, soil, water, fish, wildlife, grazing, timber, oil, gas, recreation, wilderness, visual, cultural, historic, air, vegetative, and mineral resources and diversity. In addition, forest plans shall establish management direction for developing and maintaining the infrastructure necessary to support the planned resource management program and for developing land ownership and access patterns which meet public needs while protecting or enhancing other resource values.

(b) Forest plans shall provide for diversity of plant and animal species and communities by identifying management indicators and specifying measurable conditions to:

(1) Conserve threatened or endangered species. Standards for the management of species listed under the Endangered Species Act of 1973, as amended, (16 U.S.C. 1501 *et seq.*), shall follow approved recovery plans and biological opinions. Once a species has been listed under the Endangered Species Act of 1973, as amended, the viability requirement of paragraph (b)(2) of this section no longer applies to that species. Habitat needs shall be identified and measures prescribed in the forest plan for the recovery and conservation of threatened or endangered species.

(2) Maintain viable populations of native plant and animal species by designating in the forest plan sensitive species and providing standards and guidelines that will ensure their conservation when an activity or project is proposed that would affect their habitat.

(3) Protect rare or unique biological communities.

(4) Provide habitat capability needed to support populations of species at selected levels for commercial, recreational, scientific, subsistence, or aesthetic values.

(5) Monitor trends in management indicators relative to goals, objectives, and standards and guidelines established in the forest plan. Management indicators shall include:

(i) Threatened or endangered plant and animal species as identified on Federal plats for the planning area (50 CFR 17.11 and 17.12).

(ii) Sensitive species.

(iii) Special habitats and rare or unique biological communities identified for the planning area.

(iv) Species, or groups of species, in the planning area being managed for commercial, recreational, scientific, subsistence, or aesthetic values or uses.

(c) In those cases where the forest plan includes an objective for timber production, the forest plan shall determine the long-term sustained-yield timber capacity and the allowable sale quantity. These determinations shall be based on suitable-scheduled lands.

(1) After establishment of an allowable sale quantity through forest plan amendment or revision, as a general rule, projected timber sale levels by decade shall be constant or increasing over time. Projected timber sale levels for any decade shall not exceed the long-term sustained-yield timber capacity. Exceptions to either of these requirements are permitted in the forest plan only to meet overall multiple-use objectives. These requirements shall apply to regulated volume only.

(2) Projected timber sale levels shall provide for a forest inventory condition that will enable perpetual timber harvest which meets the principle of sustained-yield and multiple-use objectives of the forest plan.

(3) The total volume of timber sold from suitable-scheduled lands over the first decade cannot exceed the allowable sale quantity. Only the timber sold that was included in the calculation of the allowable sale quantity shall be chargeable to the allowable sale quantity. Nothing in this paragraph shall prohibit the Secretary from salvage or sanitation harvesting of timber stands which are substantially damaged by fire, windthrow, or other catastrophe, or which are in imminent danger from insect or disease attack.

(4) The time period to be used for calculating achievement of the allowable sale quantity shall be based on the effective date of the forest plan, a forest plan revision, or any subsequent amendment of the allowable sale quantity, unless otherwise stated in the decision document. The time period shall begin:

(i) At the start of the first fiscal year following the effective date, if the effective date falls within the last six months of a fiscal year; or

(ii) At the start of the fiscal year, if the effective date falls within the first six months of a fiscal year.

(5) At the end of the first decade of the forest plan, the allowable sale quantity for the first decade shall be extended to apply until the allowable sale quantity in the forest plan is amended or the forest plan is revised. The amount of timber which may be sold in the subsequent period of years prior to amendment of the allowable sale quantity or forest plan revision shall not exceed the sum of the following:

(i) The total volume obtained by multiplying the average annual allowable sale quantity for the first decade by the number of years (five or less) until the plan is expected to be amended or revised.

(ii) The difference between the allowable sale quantity for the first decade of the forest plan and the volume of the allowable sale quantity that has been sold.

(6) In those cases where a forest has less than 200,000 acres of land which are capable of producing at least 20 cubic feet/acre/year and which were not withdrawn from the suited land base due to a provision of § 219.41(b)(1) of this subpart, the Regional Forester may combine two or more forests for purposes of determining long-term sustained-yield timber capacity.

(7) All even-aged stands scheduled to be harvested during the plan period will generally have reached culmination of mean annual increment of growth, based on cubic foot measure, except as follows:

(i) This requirement does not apply to silvicultural practices such as thinning or other stand improvement measures; to salvage or sanitation harvesting of stands which are substantially damaged by fire, windthrow, or other catastrophes, or which are in imminent danger from insect or disease attacks; or to cutting for experimental and research purposes.

(ii) Exceptions to this requirement shall be permitted in the forest plan for the harvest of particular species of trees if overall multiple-use goals and objectives would be better attained. Any revision or amendment to a forest plan to permit such exceptions shall be accompanied by an environmental impact statement made available to the public for at least a 90-day comment period.

(8) The plan shall identify the planned timber sale program for the decade by displaying the allowable sale quantity of timber and the proportion of probable timber harvest methods.

(d) Consistent with relative resource values identified in the forest plan, forest plans and project decisionmaking shall provide for the identification of special conditions or hazards to the resources in order to:

(1) Minimize serious or long-lasting hazards from flood, wind, wildfire, erosion, or other natural physical forces unless these are specifically excepted, as in wilderness.

(2) Prevent or reduce serious, long-lasting hazards and damage from pest organisms, utilizing principles of integrated pest management.

(3) Protect air quality related values within Class I areas by:

(i) Providing standards and guidelines for Forest Service management practices which could affect air quality related values, and

(ii) Providing recommendations to the State regarding potential adverse effects from pollution.

(e) Forest plans and project decisionmaking shall provide for the protection and conservation of soil and water resources including streams, streambanks, shorelines, lakes, wetlands, floodplains, and other bodies of water and shall not allow significant or permanent impairment of the productivity of the land.

(f) In project decisionmaking, the responsible official shall ensure that even-aged management is only applied when:

(1) If clearcutting is to be used, it is determined to be the optimum method for sustaining important forest values identified in the forest plan.

(2) The blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain, to achieve aesthetic, wildlife habitat, or other direction established in the plan.

(3) Maximum sizes of harvested areas are in compliance with standards prescribed during forest planning to best meet overall multiple-use objectives. These sizes shall not apply to areas harvested as part of ecological restoration following natural catastrophes such as fire, windstorm, and insect or disease attack. Other exceptions to the established limits may be exceeded on a project basis only after completion of a forest plan amendment accompanied by an environmental impact statement and Regional Forester review prior to approval.

(4) Dispersion of openings are in compliance with standards prescribed during forest planning to best meet overall multiple-use goals and objectives.

(g) In project decisionmaking, the responsible official shall ensure:

(1) That any roads to be constructed are designed to standards appropriate for intended uses, considering safety, cost of transportation, and impacts on land and resources.

(2) That temporary roads not needed to meet long-term National Forest transportation needs are designed with the goal of re-establishing vegetative cover on the roadway and areas where the vegetative cover has been disturbed, within ten years after the termination of the contract, permit, or lease authorizing the road either through artificial or natural means.

(h) In project decisionmaking, the responsible official shall provide special attention to land and vegetation approximately 100 feet from the edges of all perennial streams, lakes, and other bodies of water. This area shall correspond to at least the recognizable area dominated by the riparian vegetation. No management practices causing detrimental changes in water temperatures or chemical composition, blockages of water courses, or deposits of sediment shall be permitted within these areas which seriously and adversely affect water conditions or fish habitat. Topography, vegetation type, soil, climatic conditions, management objectives, and other factors shall be considered in determining what practices may be performed within these areas or the constraints to be placed upon their performance.

Section 219.41 Lands not suited for timber production

(a) Forest plans shall identify lands not suited for timber production. Such determinations shall be incorporated into management area prescriptions or forest-wide standards and guidelines, with site conditions verified at the time of project evaluation.

(b) The suitability of lands for timber production shall be determined in accordance with the following:

(1) Lands not suited for timber production shall be identified on maps, either in the forest plan or the planning records, or otherwise described in a manner in which they can be readily recognized. Lands shall be identified as not suited for timber production if any of the following conditions apply:

(i) The land has been withdrawn from timber production by an Act of Congress, the Secretary of Agriculture or the Chief of the Forest Service;

(ii) Timber production on these lands would violate statute, Executive order, or regulation;

(iii) The land does not meet the definition of forested land as set forth in § 219.32 of this subpart;

(iv) The land is not physically or biologically capable of growing tree species for commercial use;

(v) Soil and watershed conditions would be irreversibly damaged by harvesting under available technology;

(vi) There is not reasonable assurance that such lands can be adequately reforested within five years of final harvest.

(A) The reforestation requirement of paragraph (b)(1)(vi) shall not prohibit the harvesting of timber when permanent openings are created for wildlife habitat improvement, vistas, recreation uses, or similar purposes.

(B) Research and experience shall be the basis for determining whether the harvest and regeneration practices planned can be expected to result in adequate reforestation. Adequate reforestation means that the cut area will contain the minimum number, size, distribution, and species composition of regeneration as identified in the forest plan. Five years after final harvest means five years after: clearcutting, final overstory removal in shelterwood cutting, seed tree removal cut in seed tree cutting, or selection cutting.

(2) In addition to the lands identified in paragraph (b)(1) of this paragraph, lands in either of the following categories shall be identified as not suited for timber production provided they can be identified on maps, either in the forest plan or the planning records, or otherwise described in a manner that they can be readily recognized:

(i) The management prescription applicable to the land includes standards and guidelines that preclude timber production.

(ii) Based on economic factors, timber production is clearly not feasible on the land now or in the future. Areas identified include lands where there is no reasonable expectation that the timber can be sold, or that the benefits will exceed the costs of the Forest Service to prepare and offer the timber for sale. Factors associated with such lands include excessively high costs and low product value under any anticipated short-term or long-term market conditions. These factors are related to extremely high cost of access, low site productivity, isolated stands, or other similar circumstances affecting the relationship of costs and benefits.

(3) All remaining lands shall be identified as suitable for timber production and placed in one of the following categories:

(i) Lands needed for timber production to meet forest plan multiple-use goals and objectives shall be classified as "suitable-scheduled" and serve as the

basis for determining the allowable sale quantity and long-term sustained-yield timber capacity

(ii) Lands not needed for timber production to meet forest plan multiple-use goals and objectives, including financial and economic considerations, or lands for which there is need to defer a determination as to their suitability shall be identified as "suitable-unscheduled" and shall not be used in determining the allowable sale quantity and long-term sustained-yield timber capacity.

(c) Timber harvesting may occur on lands identified as not suited or "suitable-unscheduled" only for salvage sales, for sales necessary to protect other multiple-use values, or for activities that meet non-timber objectives consistent with the forest plan. Any volume harvested under such conditions shall not be considered chargeable volume and shall not contribute towards accomplishment of the allowable sale quantity. These lands shall continue to be treated for reforestation purposes if necessary to achieve the multiple-use objectives of the plan.

(d) Lands identified as not suited for timber production shall be reviewed at least every ten years. Lands identified as not suited or "suitable-unscheduled" may be redesignated at any time by amendment or revision of the forest plan if conditions have changed. The time period for the ten-year review shall begin upon the effective date of approval of the initial forest plan or the effective date of any forest plan revision or amendment which included a review of all not suited lands.

Section 219.42 Evaluation for special designations.

(a) *Roadless Areas.* Unless Federal statute directs otherwise, all roadless, undeveloped areas shall be evaluated for wilderness designation during forest plan revision. Evaluation of roadless, undeveloped areas for wilderness designation shall be limited to areas:

(1) At least 5,000 acres in size unless contiguous to existing or Administration-endorsed units of the National Wilderness Preservation System.

(2) East of the 100th meridian, having sufficient size as to make practicable its preservation and use in an unimpaired condition.

(b) *Wild and Scenic Rivers:* The eligibility of potential wild and scenic rivers during forest plan revision shall be evaluated if either of the following apply:

(1) Federal legislation requires evaluation, or

(2) There is new information or changed conditions which indicate a need to change the forest plan.

(c) *Research Natural Areas.* Forest plan revision shall include consideration of any new information or conditions which could result in the identification of Research Natural Areas. Such areas shall include examples of important forest, shrubland, grassland, alpine, aquatic, and geologic types that have special or unique characteristics of scientific interest and importance and that are needed to complete the national network of Research Natural Areas.

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