DEPARTMENT OF AGRICULTURE

Forest Service

36 CFR Parts 214, 261, and 291

RIN 0596-AC95

Paleontological Resources Preservation

AGENCY: Forest Service, USDA.

ACTION: Final rule.

SUMMARY: The U.S. Department of Agriculture (USDA or Department) is implementing regulations under the Omnibus Public Land Management Act of 2009 paleontological resources preservation subtitle (the Act). This rule provides for the preservation, management, and protection of paleontological resources on National Forest System lands (NFS), and insures that these resources are available for current and future generations to enjoy as part of America’s national heritage. The rule addresses the management, collection, and curation of paleontological resources from NFS lands including management using scientific principles and expertise, collecting of resources with and without a permit, curation in an approved repository, maintaining confidentiality of specific locality data, and authorizing penalties for illegal collecting, sale, damaging, or otherwise altering or defacing paleontological resources.

DATES: This rule is effective [Insert date 30 days from date of publication in the FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Michael Fracasso, Forest Service, at 303-275-5130, or mfracasso@fs.fed.us.

Individuals who use telecommunications devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern Standard Time, Monday through Friday.

SUPPLEMENTARY INFORMATION:

Background

The Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act, 16 U.S.C. 470aaa to aaa-11 (the Act), requires the USDA and the U.S. Department of the Interior (DOI) to issue implementation regulations. In accordance with 16 U.S.C. 470aaa-1, these regulations would serve to manage and protect paleontological resources on National Forest System lands using scientific principles and expertise.

In FY 1999, the Interior Appropriations Subcommittee requested that the DOI, the Forest Service, and the Smithsonian Institution prepare a report on fossil resource management on public lands (see S. Rep. 105-227, at 60 (1998)). The request directed the agencies to analyze (1) the need for a unified Federal policy for the collection,
storage, and preservation of fossils; (2) the need for standards that would maximize the availability of fossils for scientific study; and (3) the effectiveness of current methods for storing and preserving fossils collected from public lands. During the course of preparing the report, the agencies held a public meeting and gathered public input. The DOI report to Congress, “Assessment of Fossil Management of Federal and Indian Lands,” was published in May 2000. The Paleontological Resources Preservation Act (PRPA) was introduced in the 107th Congress after the report was released. The PRPA was modeled after the Archaeological Resources Protection Act (ARPA) and emphasized the recommendations and guiding principles in the May 2000 report. The legislation was re-introduced in subsequent Congresses through the 111th Congress when it was combined with other natural resources legislation in an omnibus bill that became law on March 30, 2009 (the Act).

The Act requires that implementation be coordinated between the Secretaries of Agriculture and Interior (Secretaries) (16 U.S.C. 470aaa-1). Accordingly, the USDA and the DOI formed an interagency coordination team (ICT) in April 2009 to draft the proposed regulations. Members of the ICT included program leads for paleontology, archaeology, and regulatory specialists from the Forest Service, DOI Bureau of Land Management (BLM), National Park Service (NPS), Bureau of Reclamation (BOR), and Fish and Wildlife Service (FWS).

Response to Comments

The Paleontological Resources Preservation proposed rule was published in the Federal Register on May 23, 2013 (78 FR 30810), for a 60-day comment period, ending July 22, 2013. The Forest Service (Agency) received 177 responses,
consisting of letters, emails, and Web-based submittals. Of those, 131 were original responses, and the remaining 46 responses were organized response campaign (form) letters. Comments were received from the public (almost equally distributed among professional academic paleontologists, consultants, and students in higher education, and amateur collectors and individuals that did not identify an affiliation), paleontological repository institutions, and government and/or quasi-government agencies.

Public comment on the proposed rule addressed a range of topics, but focused on the following areas: opposition to formal establishment of restrictions and/or operating conditions placed on casual collection of common invertebrate and plant paleontological resources, confidentiality of specific locations of paleontological resources, requirements associated with permits to collect paleontological resources, and operating standards for approved repository institutions housing paleontological resources from National Forest System lands. However, most provisions receiving critical comments are statutory requirements per the Act.

The following is a description of specific comments received on the proposed rule, responses to comments, and changes made in response to comments. Each comment received consideration in the development of the final rule. In the responses to comments that follow, the term “the Act” refers to the provisions for Paleontological Resources Preservation as stated in the Omnibus Public Land Act of 2009 (Pub. L. 111-011, Title VI, Subtitle D, Sec. 6310).

General Comments
The Department received the following comments not specifically tied to a particular section of the 2013 proposed rule.

**Comment:** *Paleontological Resource Preservation regulations and the Act.*

Respondents expressed appreciation of the Forest Service’s efforts in developing regulations to implement the Act. Respondents welcomed that the regulations provide clarification of stipulations in the Act, and expressed support for the intentions of the Act and their implementation in the regulations to provide for preservation, management, and protection of paleontological resources on National Forest System lands.

**Response:** The Act stipulates that the Secretary of Agriculture shall issue such regulations as are appropriate to carry out the provisions of the Act, as soon as practical after the date of enactment of the Act. The Department agrees with the respondents that these regulations appropriately implement the Act by providing clarification of stipulations in the Act that ensure the preservation, management, and protection of paleontological resources on National Forest System (NFS) lands using scientific principles and expertise.

**Comment:** *Regulations establish uniform and comprehensive rules for paleontological resource management.* Respondents expressed the view that the regulations represent a needed advance in development of a comprehensive and uniform Agency-wide framework for the management and conservation of paleontological resources on National Forest System lands. One respondent expressed the view that the regulations lay the groundwork for greater roles in research and resource management by Agency paleontologists who are positioned to facilitate permitted research, with the goal of preservation and carefully managed use of paleontological resources. Such managed
use would ensure that the public’s property remains properly tracked, documented, overseen, and managed by professionals for the benefit of science. One respondent suggested that the regulations concerning permitting are a welcome improvement.

Response: The Department acknowledges that the Act and the regulations establish uniform, Agency-wide requirements for casual collecting, permitted collecting, and management of collections of paleontological resources from NFS lands for the first time. The Department encourages appropriate uses of paleontological resources, and expects that users of paleontological resources would be encouraged by the knowledge that uniform standards now exist for casual collecting, permitted collection, and management of collections of paleontological resources that will be applied consistently across the Agency. Prior to these regulations, the use of paleontological resources was largely subject to local administrative unit policy, and variability in policy between administrative units was a source of confusion and discouragement to some users.

Comment: Management of paleontological resources using scientific principles and expertise. Respondents expressed appreciation that the regulations recognize that paleontological resources are scientific resources, and that management decisions concerning such resources must be made using scientific principles and expertise.

Response: The Department acknowledges the appreciation expressed by respondents for its role in development of these regulations that establish a solid foundation for the management of paleontological resources on NFS lands using scientific principles and expertise. Such informed management is fundamental to the preservation of paleontological resources that comprise a nonrenewable and irreplaceable part of America’s natural heritage. Paleontological resources on NFS lands are part of
the public trust. The Act and these regulations would ensure that scientifically important specimens remain Federal property in the public realm, and that ownership of such resources is not transferred to any single individual wherein access to the resource and associated information may become unavailable to the public.

Comment: Regulations will deter loss of paleontological resources related to unrestricted collection. Respondents claim to have witnessed potential theft and/or vandalism of paleontological resources while in the field and significant damage to and destruction of paleontological resources caused by hand tools used during collection. Respondents expressed the view that they are appreciative of and support the Department’s efforts in formulating these regulations to manage, preserve and safeguard the Nation’s fossil resources and associated scientific information located on National Forest System lands.

Response: The Department appreciates the concern expressed by the respondents regarding observed destruction of paleontological resources on NFS lands. The Department expects that provisions for casual collecting and permitted collection of paleontological resources as established in the regulations would promote the appropriate use of such resources. Conversely, provisions for enforcement and penalties as established in the regulations would be expected to deter resource loss attributed to inappropriate collection, vandalism, and/or theft, as described by the respondents.

Comment: Additional Agency paleontologists are needed to administer regulations. One respondent expressed the view that additional Agency paleontologists are needed to administer the regulations, particularly with respect to paleontological resource permitting.
Response: The Forest Service employs paleontology specialists who will be involved in administration of the regulations. The issue of paleontology specialist staffing levels within the Agency is beyond the scope of the regulations.

Comment: Regulations should not place restrictions on access or use of public lands. One respondent expressed the view that regulations should not place any restrictions on access or use of public lands.

Response: The Forest Service is accorded the authority to manage NFS lands against depredations and to make rules and regulations to regulate occupancy and use in accordance with the Organic Act of 1897. The Paleontological Resources Preservation Act of 2009 stipulates that the Secretary of Agriculture shall issue such regulations as are appropriate to carry out the provisions of the Act, as soon as practical after the date of enactment of the Act. Consequently, the development of these regulations is required by the Act. The Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. The Act was enacted, and these regulations have been developed to preserve paleontological resources for current and future generations, because paleontological resources are nonrenewable and are an irreplaceable part of America’s natural heritage. Paleontological resources on NFS lands are part of the public trust. The Act and these regulations would ensure, in part, that scientifically important specimens remain Federal property in the public realm, and that ownership of such resources is not transferred to any single individual wherein access to the resource and associated information may become unavailable to the public.

Comment: Proposed regulations concerning collection by amateurs are detrimental to the advancement of paleontological science. Several respondents
expressed the view that regulation of collection of paleontological resources by amateurs on National Forest System lands is counter-productive to the advancement of paleontological science, and that such regulation does not recognize the important role of citizen-scientists in the advancement of paleontological science. Respondents suggested that paleontological discoveries made by amateurs on public lands have contributed greatly to the science of paleontology, and that noteworthy amateur contributions to paleontology have been formally recognized by the paleontological profession through vehicles such as the Strimple Award offered by the Paleontological Society. Respondents expressed the view that there are many more amateur collectors than professional research collectors, and that many amateur collectors act as proxy collectors for researchers. Respondents suggested that amateurs will stop or reduce collecting in response to restrictions, resulting in a reduced flow of collection-based knowledge from amateurs to the scientific community. One respondent suggested that amateurs would continue to collect, but would keep their collecting sites and collections secret. Respondents suggested that many private amateur paleontological collections are ultimately donated to researchers, public institutions such as museums and schools, and individuals such as children with an interest in paleontology.

Response: The Department acknowledges the historical and continued roles that amateurs and/or citizen scientists have played in the advancement of paleontological science and the promotion of interest in paleontology in non-professional members of the public, including children and students in public education settings. The Department does not consider that these regulations would restrict collecting by amateurs, or such contributions as described above resulting from amateur collections. Rather, the Act and
the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. Individuals who wish to collect paleontological resources in a manner beyond the scope of conditions established for casual collection are not precluded from doing so under the regulations; however, a permit would be required. Collection by amateurs acting as proxies for researchers would be considered research collection; such collection is not precluded under the regulations; however, a permit would be required. The Department expects that an informed and law-abiding collecting public would be aware of conditions for casual collecting as established in the regulation and would elect to legally collect by adhering to those conditions. Ethical amateur collectors practicing casual collection in accordance with established conditions, or permitted collection if such collection is beyond the scope of casual collection, would have no cause to keep collecting sites and collections secret from the Agency under the regulations.

Comment: Restrictions on collection of paleontological resources by amateurs are not necessary. Respondents have expressed the view that the proposed regulations represent an infringement of the public’s right to collect fossils. One respondent expressed the view that existing laws and regulations are sufficient to protect paleontological resources without the imposition of new regulations. One respondent questioned from what harm are paleontological resources being protected by the proposed restrictions on collection, and another respondent suggested that such restrictions are not in the best interests of society because collection does not detrimentally affect public lands. Respondents have also suggested that the proposed restrictions on collection will not protect paleontological resources, because fossils that
are not collected are eventually destroyed by natural processes of weathering and erosion and are ultimately lost to the public and to science. Respondents expressed the view that resource impacts resulting from amateur collection are negligible with respect to permitted activities such as logging, mining, and grazing. Respondents expressed the view that the regulations would encourage enforcement resulting from collection of specimens that would otherwise be lost to erosion, and that the regulations would criminalize commonplace collecting activities of amateurs and well-intentioned scientists.

Response: The Act stipulates that the Secretary of Agriculture shall issue such regulations as are appropriate to carry out the provisions of the Act, as soon as practical after the date of enactment of the Act. Consequently, the development of these regulations is required by the Act and must be consistent with the Act. The Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. The Act was enacted and these regulations have been developed to preserve paleontological resources for current and future generations because paleontological resources are nonrenewable and are an irreplaceable part of America’s natural heritage. Paleontological resources that are damaged or lost because of theft, vandalism, and/or inappropriate method of collection cannot be replaced or renewed and are lost forever. Paleontological resources on NFS lands are part of the public trust. The Act and these regulations would ensure that scientifically important specimens remain Federal property in the public realm, and that ownership of such resources is not transferred to any single individual wherein access to the resource and associated information may become unavailable to the public. The regulations do not
prevent collection of paleontological resources that might otherwise be destroyed by weathering or erosion, but they do establish conditions for such collection. Other surface disturbing activities as specified by the respondents require authorization from the Forest Service; casual collecting of common invertebrate and plant paleontological resources does not. Such authorizations generally require a formal assessment under the National Environmental Policy Act (NEPA) in which potential impacts associated with the activity are disclosed and potential mitigation of such impacts may be proposed. Because casual collecting does not require an authorization or other Agency decision, conditions are established for casual collection to ensure that surface disturbance related to such collection is negligible and does not exceed any threshold that would otherwise trigger the need for a NEPA assessment of the activity. The Department does not expect that the regulations would criminalize commonplace collecting activities. Rather, the Department expects that an informed and law-abiding collecting public would be aware of conditions for casual collecting as established in regulation and would elect to legally collect by adhering to those conditions. The Department could consider the intent and degree of non-compliance regarding regulated collecting activities in decisions regarding potential enforcement.

Comment: Restrictions on amateur collection are counter-productive to the goal of educating the public concerning paleontological resources. Respondents have expressed the view that amateur collection of fossils by children and students serves as a gateway to continued interest and education in paleontology and science in general, and that such interest results in the will to conserve such resources and to contribute private funds toward supporting paleontological research. Respondents have suggested that
restrictions on amateur collection will serve as a disincentive for such collection and result in loss of interest and further pursuit of knowledge in paleontology and science. One respondent expressed the view that the scientific usefulness of common fossils is limited, but that their educational value for amateur collectors is high. Another respondent suggested that display of amateur collections in homes stimulates interest in paleontology among visitors. One respondent expressed the view that the development of paleontological expertise or education by nonprofessional, avocational advanced amateurs requires substantial collection experience which cannot be obtained if unnecessary restrictions are imposed on collection by amateur, avocational, and/or paraprofessional paleontologists.

Response: The Department acknowledges the value of fossils in stimulating interest and continued education in science among children and students, and that paleontology is often viewed as a “gateway” to science education. The Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. The Department expects that casual collectors, including children and students, would be encouraged by the knowledge that uniform standards now exist for casual collecting that will be applied consistently across the Agency. The respondents’ suggestion that conditions established for casual collecting would serve as a disincentive for collection and result in loss of interest and further pursuit of knowledge in paleontology and science are conjectural and not substantiated. Individuals who wish to develop paleontological expertise or education by collecting paleontological resources in a manner beyond the scope of conditions established for
casual collection are not precluded from doing so under the regulations; however, a permit would be required.

**Comment:** *Restrictions on amateur collection of paleontological resources will reduce their recreational value.* Respondents expressed the view that amateur collection of fossils is an enjoyable family activity, and that restrictions on amateur collection will reduce the opportunity for the public to use and enjoy National Forest System lands with respect to fossil collecting. One respondent suggested that the scientific usefulness of common fossils is limited, but that their recreational value for amateur collectors is high.

**Response:** The Department acknowledges the recreational value placed on fossils by casual and amateur collectors. The Act and the regulations explicitly establish a legal basis for the activity of casual collecting of paleontological resources for the first time. The Department encourages appropriate uses of paleontological resources, and expects that recreational users of paleontological resources would be encouraged by the knowledge that uniform standards now exist for casual collecting that will be applied consistently across the Agency. The Department does not consider that conditions associated with casual collecting would reduce their recreational value. Individuals who wish to collect paleontological resources for recreational purposes in a manner beyond the scope of conditions established for casual collection are not precluded from doing so under the regulations; however, a permit would be required.

**Comment:** *Regulations do not distinguish among diverse types of paleontological resources.* Respondents expressed the view that the regulations treat all paleontological resources the same, whereas common invertebrate and plant fossils merit fewer restrictions on collection than do vertebrate fossils and uncommon invertebrate and plant
fossils. Respondents suggested that common invertebrate and plant fossils may exist in numbers of tens of thousands to hundreds of thousands at any given location, and that most such specimens would be lost to erosion if not collected. One respondent expressed the view that the apparent rarity of certain fossils often reflects the availability of access to collecting areas, rather than actual rarity of specimens.

Response: The Act and the regulations do distinguish among diverse types of paleontological resources, and such distinctions are reflected by establishing casual collecting as an activity that is limited to common invertebrate and plant paleontological resources. Collection of other paleontological resources, and collection of common invertebrate and plant fossils for research purposes, requires a permit which may be considered a higher level of restriction. Collection of common invertebrate and plant fossils outside the scope of conditions established for casual collecting is not precluded under the regulations; however, a permit would be required.

Comment: Regulations should foster collection of paleontological resources. One respondent expressed the view that the regulations be written to foster the collection of paleontological resources by all members of the public and that paleontological resources be shared by placing them into public and private institutions for purposes of publication and preservation.

Response: The Act and the regulations as written establish uniform, Agency-wide requirements for casual collecting and permitted collecting for the first time. The Department encourages appropriate uses of paleontological resources by all members of the public, and expects that users of paleontological resources would be encouraged by the knowledge that uniform standards to be applied consistently across the Agency now
exist for casual collecting and permitted collection of paleontological resources. The regulations establish that paleontological resources collected under a permit must be deposited in an approved repository where they will be preserved for the public and made available for scientific research and public education.

Comment: *Roles of permittee and repository not differentiated.* One respondent expressed the view that the regulations misunderstand the difference in roles of the permittee and repository.

Response: The regulations do not misunderstand the difference in roles of a permit holder and a repository, although such distinction may not have been expressed clearly in certain areas of the proposed regulations. Respondents identified several specific areas in the proposed regulations where such differences were unclear, and the Department has modified the language in those areas, as appropriate, in these final regulations to provide clarity regarding the respective roles of a permit holder and a repository.

Comment: *New funding sources for paleontological resource studies.* One respondent suggested that the effort expended in drafting these regulations be leveraged to develop new funding sources for the scientific study of paleontological resources on National Forest System lands.

Response: The Department agrees that development of new funding sources for scientific study of paleontological resources on National Forest System lands would be beneficial. However, it is beyond the scope of these regulations to address funding of research on paleontological resources.
Comment: Clarity of language and intent in regulations. One respondent expressed the view that it is imperative that clarity of regulatory language reflect clarity in intent of the regulations.

Response: The Department agrees that clarity of regulatory language should reflect clarity of intent of the regulations. The Department has strived to provide such clarity in these final regulations, reflecting consideration of public comments on the proposed regulations that suggested areas that would benefit from additional discussion.

Comment: Request for consultation with rule writers. Two respondents requested an opportunity to meet with rule writers to discuss their concerns prior to drafting of the final rule.

Response: The procedure followed by the Department in soliciting public comment following Federal Register publication of the proposed regulations is in accordance with the requirements established in the Uniform Procedure Act. The comments received during the designated 60-day public comment period were appropriately considered by the Department during development of the final regulations. The Department elected not to consult with particular individuals and/or organizations outside of the formal public comment period in order to avoid the appearance of providing privileged access to and influence on the rule-making process by certain interested parties and not others.

Comment: Availability of fossils for scientific study would diminish under regulations. One respondent expressed the view that the regulations do not provide standards to maximize the availability of fossils for scientific study, but rather the availability of fossils for scientific study would be diminished under the regulations.
**Response:** Although a permit would now be uniformly required for collection of paleontological resources for scientific study (that is, research), the Department does not consider this requirement would diminish the availability of fossils for such scientific study. Individuals with eligibility and qualifications commensurate with the nature of the proposed research are encouraged to apply for permits to collect paleontological resources for scientific study. The Department expects that researchers would be encouraged by the knowledge that uniform standards to be applied consistently across the Agency now exist for permitted collection of paleontological resources.

**Comment:** *Natural Resources Conservation Service should be a cooperating agency.* One respondent expressed the view that the Natural Resources Conservation Service (NRCS) should be designated a cooperating agency with respect to the regulations.

**Response:** The designation of the NRCS as a cooperating agency with respect to administration of these regulations is beyond the scope of these regulations. The Act applies to Federal land, specifically land controlled or administered by the Secretary of the Interior, except Indian land; or NFS lands controlled or administered by the Secretary of Agriculture. NRCS does not manage Federal land, and consequently the Act and these regulations do not apply to NRCS.

**Comment:** *Public comment period should be extended.* Respondents expressed the view that the public comment period for the draft regulations occurred during the summer field collection season, and that the public comment period should be extended by 90 days to ensure adequate feedback by interested parties.
Response: Federal Register publication of the proposed regulations was outreached to a number of identified stakeholder organizations at the time of publication. Notice was provided of the publication date and the 60-day public comment period, which partially overlapped what respondents have referred to as the summer field collection season. However, the Department considers that few, if any, individuals spend 60 consecutive days performing field work, and that the 60-day comment period afforded ample opportunity for interested parties to provide comment before or after engaging in field activities. One-hundred-seventy-seven (177) respondents provided comments during the comment period, and the comments were nearly evenly distributed between academic paleontologists and casual or amateur collectors. The majority of comments were concentrated among several well-defined areas of the proposed regulations. Given the number of comments received from an affected community of relatively small overall size, the demographics of the respondents, and the focus of comments on certain areas, the Department considers that areas of public concern in the proposed regulations have been appropriately identified, and that interested parties had the opportunity to provide public comment and those that wished to provide comment did so. Moreover, those respondents who requested a comment period extension did also provide comment on the body of the proposed regulations during the designated comment period. Accordingly, the Department elected not to extend the public comment period.

Section by Section Explanation of the Final Rule
The following section-by-section response to the comments on the proposed rule explains the approach taken in the development of the final rule to National Forest System paleontological resources preservation.
Part 291—Paleontological resources preservation

This part contains regulations on the management, protection, and preservation of paleontological resources on National Forest System lands using scientific principles and expertise, including the collection of paleontological resources with and without a permit, curation of paleontological resources in approved repositories, confidentiality of paleontological locality information, and criminal and civil penalties.

Section 291.1 Purpose

These final regulations provide for the preservation, management, and protection of paleontological resources on National Forest System (NFS) lands. Legislative history\(^1\) of the Act demonstrates that it was enacted to preserve these resources for current and future generations because paleontological resources are nonrenewable and are an irreplaceable part of America’s natural heritage.

This section clarifies that the Secretary of Agriculture (Secretary) will manage and protect paleontological resources on NFS lands using scientific principles and expertise. This section clarifies that science, rather than other values, will be the primary management tool for paleontological resources on NFS lands. These regulations provide for the coordinated management of paleontological resources and promote research, public education, and public awareness.

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Section 291.1—Response to Comments

Comment: Who are fossils being saved for? One respondent expressed the view that clarification should be provided regarding who the regulations are saving fossils for.

Response: The Act was enacted and these regulations have been developed to preserve paleontological resources for current and future generations because paleontological resources are nonrenewable and are an irreplaceable part of America’s natural heritage. Paleontological resources that are damaged or lost because of theft, vandalism, and/or inappropriate method of collection cannot be replaced or renewed and are lost forever. Paleontological resources on National Forest System lands are part of the public trust. The Act and these regulations would ensure that scientifically important specimens remain Federal property in the public realm, and that ownership of such resources is not transferred to any single individual wherein access to the resource and associated information may become unavailable to the public.

Comment: Regulations replace management using scientific principles and expertise by bureaucracy. Two respondents suggested that the imposition of regulations concerning paleontological resources adds unnecessary policing and bureaucracy administered by nonscientists, which is contrary to the management of such resources using scientific principles and expertise as stipulated in the Act.

Response: The Act stipulates that the Secretary of Agriculture shall issue such regulations as are appropriate to carry out the provisions of the Act, as soon as practical after the date of enactment of the Act. Consequently, the development of these regulations is necessitated by the Act. Collection of paleontological resources under appropriate authorizations as established in the regulations will facilitate inventory and monitoring of such resources as called for in the Act, and such inventory and monitoring
will provide the knowledge base that is necessary for the management of paleontological resources using scientific principles and expertise, as stipulated in the Act. The Forest Service employs paleontology specialists who will be involved in administration of the regulations.

*Comment:* Restrictions on casual collection do not encourage uses as stated.

Two respondents expressed the view that conditions established for casual collecting do not encourage the scientific, educational, and casual collection of paleontological resources as stated.

*Response:* The Act stipulates that casual collecting of common invertebrate and plant paleontological resources is subject to conditions regarding personal use, reasonable amount, use of non-powered hand tools, and negligible disturbance. These regulations define and clarify these conditions. Collection of paleontological resources for scientific and educational uses would generally require a permit. The Act and the regulations establish uniform, Agency-wide requirements for casual collecting and permitted collecting for the first time. The Department encourages appropriate uses of paleontological resources, and expects that users of paleontological resources would be encouraged by the knowledge that uniform standards to be applied consistently across the Agency now exist for casual collecting and permitted collection of paleontological resources. Prior to these regulations, use of paleontological resources was largely subject to local administrative unit policy, and variability in policy between administrative units was a source of confusion and discouragement to some users.
Section 291.2 Authorities

Section 291.2 cites the Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act (the Act) under which the proposed regulations are promulgated.

Section 291.3 Exceptions

Section 291.3 addresses the scope of these regulations, based on 16 U.S.C. 470aaa-10.

Section 291.3(a) and (b) states that these regulations would not invalidate, modify, or impose any additional restrictions or permitting requirements for activities permitted under the general mining laws, the mineral or geothermal leasing laws, laws providing for minerals materials disposal, or laws and authorities relating to reclamation and multiple uses of National Forest System lands. The USDA would continue to use other applicable laws and regulations as the authority for such restrictions or requirements. The USDA would be authorized to cite the Act or these final regulations as needed for the protection of paleontological resources when planning, managing, regulating, or permitting various activities on National Forest System land covered by the Act.

Section 291.3(c) states that Indian lands, as defined in these regulations, are exempt from the scope of these regulations.

Section 291.3(e) states that the final regulations would not apply to, or require a permit for, casual collecting of a rock, mineral, or fossil that is not protected under the Act and these final regulations. Such rocks, minerals, and fossils are covered by other laws, regulations, and policies.
Section 291.3(f) states that these final regulations would not affect any land other than National Forest System lands or affect the lawful recovery, collection, or sale of paleontological resources from land other than National Forest System lands.

Section 291.3(g) states that members of the general public do not obtain any rights or privileges from the Act or the final regulations and cannot sue the U.S. Government to enforce its provisions.

Section 291.3—Response to Comments

Comment: Reconnaissance collection and exemption from regulation. One respondent expressed the view that reconnaissance collection, which was recommended by that respondent for definition elsewhere in the regulations, be listed as exempted from regulation.

Response: Reconnaissance collection as proposed and defined elsewhere by the respondent is considered research collection. Collection of paleontological resources for research purposes requires a permit and is not exempt from these regulations.

Comment: Reference to collecting a rock, mineral, or fossil should use the plural form. Two respondents expressed the view that the phrase “collecting of a rock, mineral, or invertebrate or plant fossil” should be changed to “collecting of rocks, minerals, or invertebrate or plant fossils”. One respondent suggested that the word “invertebrate” in the cited passage should be changed to non-vertebrate to clarify the range of fossils that the passage references.

Response: The language in the Exceptions section of the regulations that references rock, mineral, or invertebrate or plant fossil restates the language of the
Savings Provisions section of the Act, and would not be appropriate to modify. This applies to both comments by respondents.

*Comment: Reference rocks and minerals separate from invertebrate and plant fossils.* Two respondents expressed the view that reference to rocks and minerals in the context of exceptions should be separate from invertebrate and plant fossils, in order to clarify that rocks and minerals are not included in the regulations, whereas casual collecting of invertebrate and plant fossils does not require a permit.

*Response: The language in the Exceptions section of the regulations that references rock, mineral, or invertebrate or plant fossil restates the language of the Savings Provisions section of the Act, and would not be appropriate to modify. The referenced passage collectively refers to rocks and minerals, which are not paleontological resources and, therefore, not subject to the Act or the regulations. The referenced passage also refers to those invertebrate and plant fossils that are not subject to the Act or these regulations because they are already regulated under another authority listed previously in the Savings Provisions and Exceptions sections. An example is petrified wood, which is regulated under the Mineral Materials Act even though it is a plant fossil.

*Comment: Exception for non-profit and educational organizations.* One respondent suggested that non-profit organizations, informal research organizations, and educational organizations which have primary organizational goals of education and exploration of the natural world be exempted from the regulations.
Response: The Act and the regulations do not provide for exclusion of selected groups or classes of individuals from compliance with the requirements as established in the Act and regulations.

Comment: Federal protection for private paleontological resources in connected actions. One respondent expressed the view that protection of paleontological resources under the regulations be expanded to include fossils on private lands in connected actions wherein projects encompassing the private lands receive Federal funding.

Response: The issue of protections afforded to fossils on private lands in the context of federally funded connected actions is beyond the scope of these regulations. The requirements of the Act and these regulations pertain only to paleontological resources that are present on National Forest System lands controlled or administered by the Secretary of Agriculture.

Section 291.4 Preservation of existing authorities

Section 291.4 is based on 16 U.S.C. 470aaa-10(5). This section preserves the Forest Service’s existing legal and regulatory authorities for managing and protecting paleontological resources in addition to protecting such resources under the Act or these final regulations.

Section 291.5 Definitions

Section 291.5 contains the definitions and terms as defined in the Act or used in these final regulations. This section includes six terms defined by 16 U.S.C. 470aaa: casual collecting, Federal land, Indian land, paleontological resource, Secretary, and State. In addition, this section defines the terms common invertebrate and plant paleontological resources, reasonable amount, and negligible disturbance.
16 U.S.C. 470aaa required the Secretary to define those terms in the implementing regulations. Lastly, this section defines terms used in the final regulations that may not be broadly understood or that may be defined differently elsewhere, in order to clarify their meaning for these final regulations.


2. The term *associated records* delineates the types of information that are required by 16 U.S.C. 470aaa-4 to be deposited in an approved repository.

3. The term *Authorized Officer* means the person or persons to whom authority has been delegated by the Secretary to take action under the Act.

4. The term *casual collecting* restates the definition contained in 16 U.S.C. 470aaa. To be considered *casual collecting*, the activity means all of the following: collecting of a reasonable amount of common invertebrate or plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools, resulting in only negligible disturbance to the Earth's surface and other resources. The Department considers that in establishing the term “casual collection” rather than “amateur collection” or “hobby collection” or “recreational collection”, the Act intended that casual collection reflect the commonplace meaning of “casual”. The commonplace definition of casual includes the elements “happening by chance; not planned or expected”, “done without much thought, effort, or concern”, and “occurring without regularity” (“casual” Merriam-Webster.com. 2014. http://www.merriam-webster.com/dictionary/casual (4 March 2014)). Consequently, the
Department considers that casual collecting would generally be happenstance without intentional planning or preparation. Development of criteria for reasonable amount and negligible disturbance reflects, in part, the view of casual collecting as an activity that generally occurs by chance without planning or preparation. Further, the Act has established that an individual engaging in casual collecting activity in accordance with applicable conditions, in an area which has not been closed to casual collection, does not require a permit or other approval from the Department. Consequently, it is clear that the lack of Department decision space concerning such casual collection performed by an individual reflects that the Act intended that reasonable amount and negligible disturbance criteria established for casual collecting would be below levels that would otherwise require an evaluation under the National Environmental Policy Act (NEPA). Collection of amounts and/or land disturbance at levels that would require a NEPA evaluation would require a permit.

5. The term collection, as used in §§ 291.21 through 291.26 of these final regulations, means paleontological resources and any associated records resulting from excavation or removal from National Forest System lands under a permit.

6. The term common invertebrate and plant paleontological resources clarifies the types of paleontological resources that may be casually collected in accordance with the Act and these final regulations. This final definition incorporates the plain meaning of common, which means plentiful and not rare or unique. The final definition also incorporates a geographical factor of wide-spread distribution, which means that the resource is distributed over a relatively large geographical area. This final definition also clarifies that not all invertebrate and plant paleontological resources are common; some
are not common because of their context or other characteristics and, therefore, are not eligible for casual collection. The determination of whether invertebrate and plant fossils are common or not common will be made by the Authorized Officer using scientific principles and methods in accordance with § 291.9(c).

7. The term *consumptive analysis* means the alteration, removal, or destruction of a paleontological specimen, or parts thereof, from a collection for scientific research.

8. The terms *curatorial services* and *curation* specifies the minimal professional museum and archival standards employed in the long-term management and preservation of a collection.


10. The term *fossil* means any remains, traces, or imprints of organisms that have been fossilized or preserved in or on the Earth's crust. In informal usage, the term *fossil* tends to be used interchangeably with the term *paleontological resource*. However, under 16 U.S.C. 470aaa and these final regulations, a *fossil* may not necessarily be a *paleontological resource*. Remains, traces, or imprints of organisms (that is, *fossils*) are only considered *paleontological resources* under the Act and these final regulations if they are: (1) fossilized, (2) of paleontological interest, and (3) provide information about the history of life on earth. Therefore, paleontological resources are fossils that have paleontological interest and provide information about the history of life on earth. An example of a fossil that may not be a paleontological resource because it lacks paleontological interest and provides negligible information about the history of life on
earth would be an isolated, unidentifiable fragment of an otherwise common invertebrate fossil that was eroded from its native geologic occurrence and subsequently found in a stream bed far from its point of origin.

11. The term *fossilized* as used in the definition of *paleontological resources* means preserved by natural processes, such as burial in accumulated sediments, preservation in ice or amber, replacement by minerals, or alteration by chemical processes such as permineralization whereby minerals are deposited in the pore spaces of the hard parts of an organism’s remains. This definition is adapted from the definition of fossilization in the American Geological Institute’s Glossary of Geology (Fifth Edition, 2005, ISBN 0-922152-76-4).


13. The term *negligible disturbance* as used in the definition of *casual collecting* clarifies that casual collection of common invertebrate and plant fossils may only result in little or no change to the land surface and have minimal or no effect on other resources such as cultural resources and protected or endangered species. Disturbance caused by powered and/or large non-powered hand tools would exceed the “negligible” threshold and would no longer be casual collection.

14. The term *non-commercial personal use* as used in the definition of *casual collecting* clarifies the types of use allowed under casual collection, and means uses other than for purchase, sale, financial gain, or research. Research, in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of
knowledge available to a scientific community. Common invertebrate and plant paleontological resources collected for research purposes is not personal use and would need to be authorized under a permit in accordance with §§ 291.13 through 291.20. Exchange of common invertebrate and plant paleontological resources among casual collectors would be permissible as long as such resources were collected in accordance with the Act and the final regulations.

15. The term *non-powered hand tools* as used in the definition of *casual collecting* clarifies the types of tools that can be used for the casual collecting of common invertebrate and plant paleontological resources, and means small tools that can be readily carried by hand, such as geologic hammers, trowels, or sieves, but not large tools such as full sized-shovels or pick axes. Larger tools are more likely to create disturbance that is greater than “negligible.” The tools must not be powered by a motor, engine, or other power source.

16. The final definition of the terms *paleontological locality, location, and site* means a geographic area where a paleontological resource is found. Localities, locations, and sites may be as small as a single point on the ground or as large as the area of an outcrop of a formation in which paleontological resources are found. The term *paleontological site* is used interchangeably with *paleontological locality or location*. *Site* as used in the Act and these regulations does not mean an “archaeological site” as used in the Archaeological Resources Protection Act and its regulations.
17. The term *paleontological resource* restates the definition contained in 16 U.S.C. 470aaa. All remains, traces, or imprints of organisms are *paleontological resources* when they are (1) fossilized, (2) of paleontological interest, and (3) provide information about the history of life on earth. The term *paleontological resources* as used in the Act and these final regulations would not include any materials associated with an archaeological resource as defined in the Archaeological Resources Protection Act or any cultural items as defined in the Native American Graves Protection and Repatriation Act.

18. The term *reasonable amount* as used in the definition of *casual collecting* quantifies the maximum amount of common invertebrate and plant paleontological resources that could be removed from National Forest System lands. A person may remove up to 100 pounds in weight per calendar year, not to exceed 25 pounds per day. Development of this reasonable amount criterion reflects, in part, the view of casual collecting as an activity that generally occurs by chance without planning or preparation.

19. The term *repository* identifies the types of facilities into which collected paleontological resources would be deposited as required by 16 U.S.C. 470aaa-4.

20. The term *repository agreement* means a formal written agreement between the Authorized Officer and an approved repository official containing the terms, conditions, and standards by which the repository would agree to provide curatorial services for collections.

21. The term *repository official* identifies any officer, employee, or agent who is authorized by the repository to take certain actions on behalf of the repository, including the acceptance of collections and providing long-term curatorial services for collections.
22. The term Secretary as used in these final regulations and defined in 16 U.S.C. 470aaa means the Secretary of Agriculture.

23. The term State restates the definition contained in 16 U.S.C. 470aaa.

Section 291.5—Response to Comments

Comment: Include reference to mitigation actions in certain definitions. One respondent expressed the view that some definitions could benefit from including some aspect of paleontological resource mitigation actions.

Response: The respondent does not specify which definitions could benefit from including discussion of mitigation actions pertaining to paleontological resources. Mitigation is not considered a personal use, and collection of paleontological resources related to mitigation would require a permit. The activity of paleontological resource mitigation would commonly, but not always, occur in the context of permitted surface disturbing activities and appropriately considered during the NEPA impact assessment process. Accordingly, reference to mitigation is largely beyond the scope of these regulations.

Comment: Associated records. One respondent suggested that associated records be defined only as permits and repository agreements, and that documents pertaining to locations, collecting events, collectors, and so forth should not be considered associated records.

Response: The Department considers that documents pertaining to locations, collecting events, collectors, and so forth, as listed in the regulations comprise associated records and would be regarded as such by any professionally managed repository institution.
Comment: Authorized Officer. Respondents expressed the view that, in order to make informed decisions as referenced elsewhere in the regulations, the definition of Authorized Officer should reference qualifications and/or expertise in paleontology, including specific training and knowledge of scientific procedures and standards for collecting fossil resources, research design and scientific research, proper curation and storage methods and museum standards, and experience in properly disseminating scientific and educational information for the public benefit. One respondent suggested that requiring an Authorized Officer to consult with an Agency paleontologist would be cumbersome, resource intensive, and difficult to sustain. One respondent questioned whether or not a permit holder or permit issuer could be considered an Authorized Officer.

Response: An Authorized Officer in the Forest Service is delegated the authority to make certain decisions regarding land use in many subject areas in which a single individual would not be expected to have professional expertise. An Authorized Officer frequently consults with subject matter experts prior to exercising such decision-making authority. In this respect, decisions by an Authorized Officer relating to paleontological issues are no different from such decisions made regarding other specialized disciplines in the Agency. The process of an Authorized Officer consulting with subject matter experts is not cumbersome, but rather is standard procedure in the decision-making process. A permit authorizes a permit holder to perform certain activities as specified in the permit. However, a permit holder would not be considered an Authorized Officer, and such designation is restricted to Forest Service employees.
Comment: Definition of casual collection is too restrictive. Respondents expressed the view that limitations on amounts collected and the use of non-powered hand tools for casual collection are too restrictive and go beyond the intent of the Act, which is to protect paleontological resources from exploitation for commercial gain.

Response: The Act stipulates that casual collecting is subject to conditions including collection of reasonable amounts, collection from the land surface or by using non-powered hand tools, and collection resulting in negligible surface disturbance. The regulations are consistent with these stipulations of the Act. Protection of paleontological resources from commercial exploitation is only one of many purposes of the Act, which also stipulates that the Secretary of Agriculture manage and protect such resources using scientific principles and expertise, and to develop plans for the inventory, monitoring, and scientific and educational use of such resources.

Comment: Casual collection should include reconnaissance collection. Respondents suggested that reconnaissance collection for research be included in the definition of casual collection.

Response: Reconnaissance collection is considered research, does not constitute personal use, and requires a permit.

Comment: Collection of common plant fossils with non-powered hand tools should not require a permit. One respondent expressed the view that the collection of any common plant fossils with non-powered hand tools should not require a permit.

Response: Collection of common plant fossils using non-powered hand tools could be considered casual collecting and not require a permit, providing that all other conditions pertaining to reasonable amount and negligible disturbance as established for
casual collecting are met. A permit would be required if such collection is outside the scope of conditions established for casual collecting.

Comment: *Shark and fish teeth should be included in the definition of casual collection.* One respondent suggested that the collection of shark and/or fish teeth from the surface of natural erosional exposures should be considered casual collection, unless the subject specimens are rare.

Response: The Act and the regulations stipulate that casual collecting is restricted to common invertebrate and plant fossils. Shark and fish teeth are vertebrate fossils, and are thereby excluded from casual collection.

Comment: *Collection during educational field trip.* One responded suggested that clarification should be provided concerning whether collection during an educational field trip led by a school, university, or museum would be considered casual collection or would require a permit.

Response: A permit under these regulations would not be required for casual collecting by individual participants in an educational field trip, provided that collections by individuals are for personal use, do not exceed individual reasonable amount limits and the collateral impacts to associated resources that may be caused by the group do not exceed negligible disturbance criteria established for casual collection. However, the nature of the trip, including number of participants and potential collateral impacts to associated resources, could trigger the need for a special use permit pertaining to group uses that is unrelated to paleontological collection. Questions pertaining to group uses unrelated to paleontological collection should be directed to special uses staff at the local Forest Service Field Office in which a field trip is planned.
Comment: Casual collection may promote illegal collection. One respondent suggested that allowing casual collection would facilitate illegal collection for resale under the pretext of casual collection, resulting in the loss of collection locations.

Response: The Act establishes that casual collecting is an activity that may be performed on National Forest System lands, providing that established conditions are met. The Department would rely largely on the ethics of an informed and law-abiding collecting public, who are aware of conditions for casual collecting as established in regulation, and elect to legally collect by adhering to those conditions. Documented intentional noncompliance with the conditions established for casual collection would subject the collector to enforcement action.

Comment: Regulation of casual collection is impossible. One respondent expressed the view that monitoring and regulation of casual collection by Department personnel in the field would be impossible.

Response: The Act does not require the direct monitoring or regulation of casual collecting. Because the Act and the regulations establish that casual collecting does not require a permit or other advance approval, the Department agrees that it would be nearly impossible to monitor or track every individual occurrence of casual collecting. In this respect, casual collecting is no different from other activities that occur on National Forest System lands that do not require a permit. The Department would rely largely on the ethics of an informed and law-abiding collecting public, who are aware of conditions for casual collecting as established in regulation, and elect to legally collect by adhering to those conditions. Moreover, the effects of casual collecting may be indirectly
monitored or tracked by assessing cumulative impacts in known areas commonly used for casual collection.

Comment: Common fossils of limited interest to amateur collectors. One respondent suggested that amateur fossil collectors, like many amateur mineral collectors, would not be interested in casual collection limited to common and abundant invertebrate and plant fossils because such specimens are too commonplace. Interest would reside largely in rare or uncommon varieties, which are excluded from casual collection under these regulations.

Response: The Act and the regulations establish that casual collecting only pertains to common invertebrate and plant paleontological resources. Intentional collection of rare or uncommon specimens would require a permit.

Comment: Definition of common invertebrate and plant paleontological resources should be clarified. Respondents suggested that the definition of common invertebrate and plant paleontological resources requires more detail and clarification in order to avoid confusing collectors. Respondents also expressed the view that common invertebrate and plant fossils be explicitly excluded from the definition of paleontological resources and thereby excluded from regulation.

Response: The definition of paleontological resources in the Act and the regulations includes common invertebrate and plant fossils, and the Act explicitly references common invertebrate and plant paleontological resources in the context of casual collecting. Criteria for whether a paleontological resource would be considered common could reflect a variety of factors including, but not limited to, context of occurrence in a particular location, relative abundance, and extent of distribution. It is
not practical to address in regulations each factor that could be pertinent to determination of what constitutes common with respect to common invertebrate and plant paleontological resources.

Comment: Include criterion of formal description in definition of common invertebrate and plant paleontological resources. Two respondents suggested that a fossil species be considered common if it has been formally described in a scientific publication and type specimens have been deposited in an appropriate repository; conversely, a fossil species would only be considered rare if it has not been described or is awaiting description in scientific publication. One respondent suggested that if ten or more specimens of a species awaiting formal description have been deposited in a repository, that species may be considered common.

Response: Criteria for whether or not a paleontological resource would be considered common or rare could reflect a variety of factors including, but not limited to, context of occurrence in a particular location, relative abundance, and extent of distribution. The proposed criterion of formal taxonomic description has no bearing on whether a particular occurrence of a specimen might be considered common. Many formally described species may be considered rare, and conversely, many undescribed species could be considered common. Moreover, the process as described by the respondents is cumbersome and would be nearly impossible to implement, particularly with regard to tracking number of specimens referred to a type. This would be especially true for any described species whose types did not originate from National Forest System lands. The Department will not incorporate a criterion of formal species description in the definition of common.
Comment: Clarification regarding paleontological resources that are considered to be rare. Respondents suggested that additional information should be provided concerning which paleontological resources are considered to be rare, and expressed the view that a list be provided concerning which paleontological resources are considered rare and which are considered common. One respondent expressed the view that the apparent rarity of certain fossils often reflects the availability of access to collecting areas, rather than actual rarity of specimens. Respondents suggested that without expert knowledge, it would be difficult for amateur collectors to determine if a specimen is rare or common. One respondent expressed the view that clarification should be provided regarding whether or not a collector would be considered in jeopardy under the law if a rare specimen was collected inadvertently. Respondents also expressed the view that an Authorized Officer should not determine whether or not a paleontological resource is rare.

Response: Criteria for whether or not a paleontological resource would be considered common or rare could reflect a variety of factors including, but not limited to, context of occurrence in a particular location, relative abundance, and extent of distribution. Consequently, an assessment of commonness or rarity would not necessarily apply universally to a particular taxon, and is therefore not appropriate for determination in the form of a taxonomic list. It is not practical to address in regulations each factor that could be pertinent to determination of what constitutes common or rare with respect to common invertebrate and plant paleontological resources. A collector would not necessarily be placed in jeopardy under the law for inadvertent collection of a rare specimen during casual collection. The Department could consider the intent and
degree of non-compliance regarding inadvertent collection of rare specimens regarding potential enforcement. The regulations establish a procedure wherein an Authorized Officer would consider a recommendation by a subject matter expert in making a determination of whether an invertebrate or plant paleontological resource is common or rare.

Comment: Associations of partial specimens should be addressed in definition of common invertebrate and plant paleontological resources. One respondent suggested that some isolated parts and/or incomplete specimens of certain organisms may be common, but associated parts and/or complete specimens of the same organism may be rare. The respondent questioned whether such species would be considered common or rare under the regulations.

Response: Criteria for whether or not a paleontological resource would be considered common would include context of occurrence in a particular location and could include the nature of preservation, such as completeness and/or associations of elements of a specimen. Consequently, an assessment of common could largely reflect the context of a specimen, and not necessarily apply universally to a particular taxon. For example, concentrations of disarticulated columnals of a particular crinoid species might be considered common, whereas a complete and fully articulated specimen of the same species would generally be considered rare. Consequently, it is not practical to address in regulations each factor that could be pertinent to determination of what constitutes common with respect to common invertebrate and plant paleontological resources.

Comment: Criterion of widespread distribution should be clarified. Respondents suggested that clarification should be provided concerning what constitutes widespread
distribution. One respondent suggested that most species are defined on the basis of geologic horizons and localities, and therefore can only be considered abundant in local areas, rather than widespread areas.

Response: The characteristic of widespread distribution is considered dependent on factors including, but not limited to, the paleoecology of the organisms in question and the distribution of rock outcrops in which they may occur. It is not practical to address in regulations each factor that could be pertinent to determination of what constitutes widespread distribution with respect to common invertebrate and plant paleontological resources. In general, a species that is present in rocks distributed through the greater extent of a given Forest Service administrative Region could be considered to have widespread distribution in that Region. The respondent’s suggestion that most species can only be considered abundant in local areas and not of widespread distribution is conjectural and not substantiated. That assertion is contrary to the longstanding paleontological and stratigraphic concept of index fossils, whose geologic utility is predicated on their having the key attributes of easy identification, abundance, narrow temporal range, and widespread geographic distribution.

Comment: Intermingling of common and rare species. Respondents suggested that in many cases common and rare species are intermingled, and questioned whether locations in which such intermingling occur would be closed to casual collection. One respondent suggested that amateur collectors often donate rare specimens found in such circumstances to museums, and that closure of such locations to casual collection would result in fewer rare species being collected and described. One respondent suggested that if locations containing intermingled common and rare species are closed to collection,
amateur collectors would not disclose finding of rare species in order to avoid closure of such areas. One respondent suggested that if such areas were closed, opportunities for children to casually collect would be lost.

Response: The respondents’ suggestion that common and rare species are intermingled in many cases is conjectural and not substantiated. In cases where intermingling is demonstrated, the Authorized Officer has the ability to close an area to casual collection if it is considered that rare paleontological resources may be placed at risk by inadvertent casual collection. The potential for casual collectors to inadvertently collect rare specimens and later donate them to repositories could be considered in area closure decisions. The existence of alternative opportunities for children to casually collect could also be considered in area closure decisions. The Department expects that ethical casual collectors would not withhold information concerning the occurrence of rare specimens for the purpose of avoiding potential area closures.

Comment: Discovery of a new species. Two respondents expressed the view that the regulations should include procedures for amateur collectors to follow if they collect specimens that may be considered to represent new species. The respondents suggested specific procedures including collection and packaging protocols, location documentation, contacting professional paleontologists, and other related actions.

Response: The Department does not consider that discovery of new species would be a commonplace occurrence in the context of casual collection. Protocols related to the documentation and description of new species are the subjects of an extensive body of scientific taxonomic literature, and the formal establishment of such protocols in the context of casual collecting is beyond the scope of the regulations.
Specimens that could represent new species that were inadvertently collected during casual collection should be returned to the Forest Service for appropriate disposition.

*Comment:* Credit to amateur collectors of new species. Two respondents suggested that the regulations require that amateur collectors who find new species be explicitly acknowledged in professional publications in which such species are formally described. One respondent suggested that a $500.00 penalty be assessed to authors of such papers who fail to acknowledge a casual collector who provided the specimens upon which a new species is described.

*Response:* The Department does not consider that discovery of new species would be a commonplace occurrence in the context of casual collection. The issue of providing credit or acknowledgment of a collector’s contribution to published research is an ethical matter beyond the scope of the regulations.

*Comment:* Consumptive analysis. One respondent suggested that the definition of consumptive analysis is too broad, and should be limited to procedures that would destroy an entire specimen or a majority of a specimen.

*Response:* Consumptive analysis is commonly understood to mean any procedure that would entail irrevocable alteration (that is, consumption) of a part of a specimen for the purpose of acquiring information that cannot be obtained any other way; for example, removing and destroying a plug of bone to determine chemical composition or microscopic structure. Important and/or unique scientific information may be represented in a small portion of a specimen, independent of the entire specimen or majority of a specimen. Consequently, it would not be appropriate to define consumptive
analysis only in the context of destruction of a complete specimen, or the majority of a specimen.

**Comment: Curatorial services and curation.** One respondent suggested that reference to purposes for lending a collection be clarified by listing exhibition as an educational purpose. One respondent suggested that the definition of curatorial service and curation reference the intellectual services that trained scientists provide to collections, including management decisions that maximize scientific and educational value of the collections.

**Response:** The Department considers that exhibition of specimens is an educational purpose, and does not require separate listing. The Department considers that “intellectual services” provided by trained repository staff scientists would be the basis for professional collections management practices and decisions employed by such staff, and does not require separate listing.

**Comment: Federal land.** One respondent expressed the view that the definition of Federal land as discussed in the Preamble reads awkwardly and should be rephrased.

**Response:** The Department agrees with the respondent’s view and has added the word “and” to read: “9. The term Federal land restates the definition contained in 16 U.S.C. 470aaa of the Act, and means land controlled by the Secretary except for Indian land as defined in 16 U.S.C. 470aaa.”

**Comment: Definition of fossil should include temporal component.** Respondents expressed the view that the definition of fossil should include a component of geologic time; specifically that organic remains and/or traces that post-date the Pleistocene epoch (post-glacial time) not be considered as fossils. One respondent suggested that organic
remains and/or traces that occur in archeological time frames and/or modern sediment deposits originating from catastrophic events such as floods or mud entrapment not be considered as fossils.

Response: The existing definition of fossil is one that is commonly used in the scientific community and largely conforms to the definition of fossil as employed by the American Geological Institute (AGI). In addition, the existing definition of fossil is consistent with the definition of paleontological resource as established by the Act and the regulations, which does not include a temporal criterion. Incorporation of an end-Pleistocene limit to determine whether or not a particular specimen is a fossil would be arbitrary and not based in science. Similarly, reference to occurrence in an archeological time frame to determine whether or not a specimen is a fossil would also be arbitrary and not based in science. Organic remains and traces in modern sediments, originating from catastrophic events that occurred not more than several decades before the present, would generally not be considered fossils.

Comment: Definition of fossil should be clarified regarding organic traces. One respondent suggested that the definition of fossil be clarified regarding whether organic traces (trace fossils) are considered to be fossils or sedimentary structures.

Response: The definition of fossil clearly states that “fossil means any fossilized remains, traces, or imprints of organisms…” Consequently, trace fossils are considered fossils as per the definition.

Comment: Definition of “fossil” as discussed in preamble overuses the word “paleontological”. One respondent expressed the view that the word “paleontological” is overused in the discussion of the definition of “fossil” in the preamble. The respondent
suggested that the discussion would be improved by substituting the word “scientific” for “paleontological” with reference to the term “paleontological interest”.

Response: The discussion of “fossil” in the preamble clarifies the distinction between a fossil and a paleontological resource, and in so doing restates the definition of paleontological resource as established in the Act and the regulations. That definition uses the term paleontological interest, rather than scientific interest. Because the referenced passage restates an established definition, it will not be changed.

Comment: Definition of fossilized is too broad. One respondent suggested that the definition of fossilized is too broad, and that the definition should include a component of geologic age or other time constraint, or be deleted entirely.

Response: The existing definition of fossilized refers to natural processes that would operate to transform organic remains, traces, or imprints into fossils. The definition is focused on processes rather than time, and processes of fossilization operate over a wide range of time scales, often of unknown extent, that reflect the complex interactions of diverse physical and chemical environmental variables. The existing definition of fossilized is consistent with definition of the related term fossilization as employed by the American Geological Institute (AGI), which likewise does not include a time constraint.

Comment: Indian land. One respondent expressed the view that the regulations criminalize activities of young Native Americans by not allowing them to collect fossils for resale on their own lands.
Response: The Act and the regulations explicitly state that Indian lands are not subject to the Act or the regulations. Fossil collecting activities by Native Americans on Indian lands would be under the jurisdiction of Tribal authorities.

Comment: The definition of negligible disturbance is ambiguous. Respondents expressed the view that the definition of negligible disturbance is vague, arbitrary, subject to individual interpretation, and should be clarified. Respondents suggested that the definition of negligible disturbance include measurable limits expressed in volumes, amounts, and/or areas such as square meters, square yards, and/or acres. One respondent suggested a maximum disturbance limit of one square meter. One respondent suggested that criteria for excessive disturbance be defined and used in place of the negligible disturbance criterion.

Response: The amount of physical disturbance created during casual collection is not the only criterion that would determine whether overall disturbance is negligible or not. Other factors that would relate to overall disturbance could include, but would not be limited to, location specific factors such as proximity to threatened or endangered species and/or other sensitive resources and visual/aesthetic considerations. It is not practical to address in regulations the entire spectrum of factors that could be pertinent to determination of what constitutes negligible disturbance related to casual collection at any particular location. In general, surface collection by hand would be inherently less likely to exceed negligible disturbance than would be collection involving removal of materials using hand tools. The Act requires that negligible disturbance be determined by the Secretary, rather than excessive disturbance. Moreover, for the same reasons as presented above, it would be no more practical to establish specific criteria for excessive
disturbance in the regulations than it would be to establish such criteria for negligible disturbance.

Comment: Negligible disturbance and non-powered hand tools. Two respondents suggested that negligible disturbance be defined as any disturbance resulting from the use of non-powered hand tools in casual collection. One respondent suggested that allowing only non-powered hand tools would place practical limits on amounts of material that could be removed without difficulty and would thus be self-regulating. One respondent suggested that employing the criterion of non-powered hand tools would be easily identifiable in the field and would thereby facilitate enforcement of the negligible disturbance criterion.

Response: In separately specifying conditions of negligible disturbance and use of non-powered hand tools in the context of casual collecting, the Act recognizes that these criteria are distinct. The use of non-powered hand tools can result in disturbance of large surface areas to an extent that would be considered greater than negligible by any other objective criterion. Consequently, it would not be appropriate to define negligible disturbance as any disturbance that was created using non-powered hand tools. Moreover, the amount of physical disturbance created during casual collection is not the only criterion that would determine whether overall disturbance is negligible or not. Other factors that would relate to overall disturbance could include, but would not be limited to, location specific factors such as proximity to threatened or endangered species and/or other sensitive resources and visual/aesthetic considerations.

Comment: Authorized Officer should not determine negligible disturbance. One respondent suggested that an Authorized Officer should not have the authority to
determine whether disturbance is negligible or not, because such decisions may be subjective and/or biased.

Response: The Department considers that in many circumstances, what constitutes negligible disturbance would depend on the location of the activity and could reflect a number of specific factors that are unrelated to paleontological resources. Authorized Officers in the Forest Service have been delegated the authority to make certain land use decisions in the administrative units under their jurisdiction. For any given location, the Authorized Officer is appropriately positioned to decide, based on recommendations of local staff specialists, whether or not a particular level of surface disturbance would be considered negligible or not.

Comment: Disturbance related to fossil collection is negligible compared to other uses. Respondents expressed the view that casual collection using only non-powered hand tools should not be subject to a negligible disturbance criterion, since surface disturbance as a consequence of such collection is negligible compared to surface disturbance resulting from other activities allowed on National Forest System lands such as minerals extraction, logging, and grazing.

Response: The Act requires that the regulations define the term “negligible disturbance” in the context of casual collection. Contrary to casual collecting, other surface disturbing activities as specified by the respondents require authorization from the Forest Service. Such authorizations generally require a formal NEPA assessment in which potential impacts associated with the activity are disclosed and potential mitigation of such impacts may be proposed. Because casual collecting does not require an authorization or other Agency decision, conditions established for casual collection must
ensure that surface disturbance related to such collection is negligible and does not exceed any threshold that would otherwise trigger the need for a NEPA assessment of the activity.

Comment: *Negligible disturbance criterion impractical for serious amateur collectors.* One respondent expressed the view that collection of good fossil specimens by serious amateur collectors often requires freshly exposing large areas of bedrock, which would not be consistent with a requirement for little or no change to the land surface. The respondent also suggested that the exclusion of large hand tools and/or powered tools would not allow exposure of fresh bedrock which is necessary for such collection.

Response: Land disturbance to the extent described by the respondent would generally be considered greater than negligible, and would require a permit. Collection resulting in disturbance greater than negligible and/or by using hand tools larger than allowed for casual collection would require a permit.

Comment: *Cumulative surface disturbance in large common collecting areas should be addressed.* Respondents expressed the view that clarification should be provided concerning how criteria for negligible disturbance would be applied in common collection locations subject to casual collection by large numbers of collectors. Respondents suggested that in such common collecting locations, areas disturbed by individual collectors may coalesce, and areas disturbed by individual collectors may not be able to be differentiated from preexisting disturbed areas.

Response: Each individual engaging in casual collecting in a common collection area would be expected to adhere to the negligible disturbance criterion. Common
collecting areas in which cumulative surface disturbance levels exceed negligible could be subject to NEPA assessment of surface impacts. Such areas could be subject to closure to casual collecting and/or restricted to collecting under permit.

Comment: Reclamation of disturbed areas. One respondent expressed the view that a collector should be allowed to exceed the negligible disturbance criterion provided that the disturbed area is reclaimed by the collector before leaving. Two respondents suggested adding a requirement that all areas disturbed by collection should be filled-in and graded. One respondent suggested that small areas of disturbance should not require reclamation because they will be restored by natural processes over time.

Response: Collection resulting in disturbance that exceeds a negligible level would require a permit. The need for reclamation of areas in which disturbance exceeds negligible levels would be addressed in a permit. The criterion of negligible disturbance in casual collection implies that disturbance would be of such limited extent that reclamation would not be necessary.

Comment: Negligible disturbance and consecutive collecting trips. One respondent suggested that that clarification should be provided concerning how negligible disturbance criteria would be applied in the event of consecutive collecting trips made to the same area by an individual collector.

Response: The criterion of negligible disturbance would not be assessed cumulatively, but rather would be applied to disturbance resulting from each collecting event performed by an individual.

Comment: Definition of non-commercial personal use is overly restrictive. Respondents expressed the view that the definition of non-commercial personal use is too
restrictive, particularly with reference to exclusion of use for research. Respondents suggested that excluding research would prevent casual collectors from developing personal expertise by researching their finds, and that research, publication, and donation to museums of specimens that were collected by knowledgeable amateur collectors would be made illegal. One respondent suggested that clarification should be provided regarding whether or not it would be a violation if casually collected specimens were later donated to an academic institution for research. Respondents suggested that the term research be removed from the definition, and one respondent expressed the view that it is ironic for research to be considered a commercial use.

Response: The definition of non-commercial personal use has been modified to further characterize research, which is not considered to be a personal use. Research, in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific community. In accordance with this characterization of research, casual collectors seeking to develop personal expertise through study of collected specimens would not be considered to be engaging in research. Specimens that were casually collected with the intent of personal use may be donated to a repository at a later time; however, collection with the intent to donate to a repository would not constitute casual collection and would require a permit. The Department does not expect this to be a commonplace scenario. The Department does not consider research to be a commercial use; however, research is likewise not considered to be a personal use and, therefore, requires a permit.
Comment: Include mitigation in definition of non-commercial personal use. One respondent suggested that the definition of non-commercial personal use should specify that mitigation of damage or potential damage to paleontological resources be excluded from consideration as non-commercial personal uses.

Response: Mitigation of damage or potential damage to paleontological resources generally occurs in the context of permitted projects on National Forest System lands. Permitted projects are frequently commercial in nature and associated paleontological resource mitigations are always managed as professional, rather than personal activities. Consequently, mitigation activities could not reasonably be construed as non-commercial personal use, and there is no need to specifically include discussion of mitigation in the definition of non-commercial personal use.

Comment: Definition of non-commercial personal use should not reference financial gain or research. One respondent suggested that reference to financial gain and research should be removed from the definition of non-commercial personal use in order to be consistent with the discussion of casual collection in the context of outfitters and guides in the section “Proper Consideration of Small Entities”.

Response: Reference by the respondent to the discussion of casual collection associated with outfitters and guides in the section “Proper Consideration of Small Entities” is presented out of context, and the definition of non-commercial personal use as proposed is consistent with the referenced discussion. The referenced discussion establishes that participants in an outfitter/guide operation that is not paleontological in nature may individually engage in casual collection as an incidental activity which is not related to the commercial purpose of the permitted outfitter/guide operation, and that the
regulations would not be expected to negatively impact a permitted small entity operation that is not paleontological in nature. Commercial use and/or financial gain from paleontological resources are not allowed in accordance with the Act and these regulations. Research, while not considered commercial, is also not considered a personal use.

Comment: The definition of non-powered hand tools is too restrictive.

Respondents expressed the view that the definition of non-powered hand tools is more restrictive than stipulated by the Act, which does not establish a limit on the size of non-powered hand tools. Respondents suggested that large non-powered hand tools, including but not limited to full-sized pick axes, sledge hammers, crow bars, pry bars, and shovels are necessary to remove unconsolidated overburden and expose fresh bedrock containing paleontological resources and to extract paleontological resources from hard sedimentary rocks. Respondents suggested that the definition should not focus on tool size, but rather should specify that tools be used that are appropriate to the circumstances of the collecting in order to minimize damage to specimens. Respondents expressed the view that use of hand tools that are too small and inappropriate for collecting conditions will result in loss or damage of paleontological specimens. One respondent expressed the view that hand tools should be defined as any tools that are not powered by a motor, engine, or other mechanical power source, and that tool size should not be included in the definition.

Response: The Department considers that casual collecting would generally be happenstance without intentional planning or preparation, and that use of large hand tools requiring two-handed operation would be inconsistent with such activity and would entail
a higher potential for greater than negligible land surface disturbance. Land disturbance
to the extent described by respondents would generally be considered greater than
negligible, and would require a permit. Collection resulting in disturbance greater than
negligible and/or by using hand tools larger than allowed for casual collection would
require a permit.

*Comment: The definition of non-powered hand tools is arbitrary and vague.*

Respondents have expressed the view that the definition of non-powered hand tools is
arbitrary, vague, and will create confusion. Respondents suggest that non-powered hand
tool of any particular type exist in a nearly continuous range of sizes, and suggested that
clarification should be provided concerning where the upper size limit would be placed in
such continuous series, or how it would be determined if a tool is too large.

*Response:* Generally, a non-powered hand tool that requires use of both hands to
wield effectively would be considered too large for use in casual collection. The
Department considers that casual collecting would generally be happenstance without
intentional planning or preparation, and that use of large hand tools requiring two-handed
operation would be inconsistent with such activity and would entail a higher potential for
land surface disturbance greater than negligible. Use of hand tools larger than allowed
for casual collection could be authorized for collection under a permit.

*Comment: Specification of certain tools.* Respondents expressed the view that
clarification should be provided regarding whether or not use of chisels, pry bars, crow
bars, Marsh picks, geo-picks, hoe-picks, and/or pick-axes would be allowed in casual
collection.
Response: The level of specificity requested by the respondents is not appropriate for regulation. Generally, a non-powered hand tool that requires use of both hands to wield effectively would be considered too large for use in casual collection.

Comment: Permit and use of large hand tools. Respondents suggested the clarification should be provided regarding whether or not use of non-powered hand tools larger than allowed for casual collection would be authorized under a permit.

Response: Use of hand tools larger than allowed for casual collection could be authorized for collection under a permit.

Comment: Restriction on use of large hand tools will stop casual collection. One respondent expressed the view that limiting hand tool sizes will stop casual collecting activities. Another respondent suggested that limiting use of large shovels and pick-axes will criminalize collection by children and volunteer collectors.

Response: The respondents’ suggestions that restricting use of large tools in casual collecting would stop such activities and would criminalize collection by children and volunteers are speculative and not substantiated. Use of hand tools larger than allowed for casual collection could be authorized for collection under a permit.

Comment: Definition of non-powered hand tools should not reference negligible disturbance. One respondent expressed the view that discussion of the definition of non-powered hand tools in the preamble should not reference negligible disturbance, because negligible disturbance should be based on the amount and nature of disturbance rather than the type of tool being used.

Response: The actual definition of non-powered hand tools does not reference the negligible disturbance criterion. The preamble discussion of the definition of non-
powered hand tools provides clarification that in developing the definition, the
Department recognizes that larger tools have an inherent capacity to disturb larger areas
to an extent greater than would be considered negligible.

Comment: Paleontological localities that contain more than one fossil
assemblage. One respondent suggested that clarification should be provided concerning
the potential existence of successive geologic beds at any given locality, each of which
may contain distinctly different fossil assemblages. The respondent questioned whether
or not each distinct fossil assemblage would be considered separately in determining
collection limits.

Response: The reasonable amount limit established for casual collection is an
absolute specified amount, and is not a “per locality” or “per bed” or “per fauna” limit.
Amounts collected at different locations, from different beds, and/or representing distinct
faunas would all contribute cumulatively to the established total reasonable amount
annual limit.

Comment: Definition of paleontological resources does not recognize diversity of
types of fossils. Respondents expressed the view that there exist a wide variety of fossils
and that the regulations unnecessarily consider all of them to be paleontological resources
and subject to regulation. Respondents suggested that common invertebrate and plant
fossils should be excluded from the definition of paleontological resources because they
do not require the same level of protection as vertebrate fossils and cultural resources.

Response: Paleontological resources are defined in the Act, and the regulations
restate the definition established in the Act. The Department considers that the definition
of paleontological resources in the Act and the regulations appropriately includes the
diversity of fossil organisms and their remains, traces, and imprints. Common invertebrate and plant fossils are included in the definition of paleontological resources.

Comment: Paleontological resources do not need to be defined or regulated:
One respondent expressed the view that there is no need to define or regulate paleontological resources because there are other mechanisms in place to protect the few fossil sites that merit protection, such as designating them National Parks or Monuments.

Response: Paleontological resources are defined in the Act, and the regulations restate the definition established in the Act. The Act stipulates that the Secretary of Agriculture shall manage and protect paleontological resources on National Forest System Lands using scientific principles and expertise, and these regulations establish procedures for such management. The Act and these regulations apply to all National Forest System lands.

Comment: Definition of paleontological resources does not address reproductions. One respondent suggested that the definition of paleontological resources should explicitly exclude reproductions, such as casts made from actual specimens.

Response: The definition of paleontological resources refers to fossilized remains, traces, or imprints of organisms. Casts and other reproductions are clearly not fossilized remains, traces, or imprints of organisms, and would not be considered paleontological resources under the existing definition, and do not require explicit exclusion by listing them.

Comment: Definition of paleontological resources is too broad and ambiguous.
One respondent expressed the view that the definition of paleontological resources is overly broad and ambiguous. The respondent suggested that the definition appears to
have been modeled after the Archaeological Resources Protection Act (ARPA) which covers very different resources, and that the definition of paleontological resources and the regulations should better reflect those resource differences.

Response: The definition of paleontological resources in the regulations restates the definition in the Act. The Department considers that the definition of paleontological resources in the Act and the regulations appropriately includes the diversity of fossil organisms and their remains, traces, and imprints, and is, therefore, neither overly broad nor ambiguous. The definition is consistent with common use of the terms “paleontological resources” and “fossil” within the scientific community. The respondent’s reference to that definition being modeled after ARPA bears no relevance to the adequacy and/or appropriateness of the definition.

Comment: Reference to archeological resources should be clarified. One respondent expressed the opinion that clarification should be provided to indicate that fossils found in association with archeological resources would otherwise be considered paleontological resources when found in a non-archeological context.

Response: The definition of paleontological resources in the Act and in these regulations excludes fossils associated with archaeological resources. The Department does not consider it necessary to additionally state in the definition the converse case, that fossils not associated with archaeological resources would be considered paleontological resources.

Comment: Definition requested for “qualified paleontologist”. One respondent suggested that a definition be provided for the term “qualified paleontologist”.

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**Response:** Qualifications are evaluated in the context of being commensurate with a particular task or project, and do not comprise a defined set of universally applicable criteria. The term “qualified paleontologist” has been removed from these regulations and, therefore, does not require definition in this final rule.

**Comment:** The definition of reasonable amount is overly restrictive.

Respondents expressed the view that the definition of reasonable amount is overly restrictive, arbitrary, and ambiguous. Respondents suggested that the definition does not recognize the variety of fossil types and their occurrences, and that many invertebrate fossils occur in countless numbers and would be lost by erosion if not collected. One respondent expressed the view that amount limits for the collection of common and abundant invertebrate and plant fossils are unnecessary, because most sites bearing such fossils are continually replenished by natural processes of erosion. One respondent suggested that reasonable amounts be eliminated because there are too many field variables to consider in establishing collection limits.

**Response:** The Act requires that the regulations define the term reasonable amount in the context of casual collecting. In establishing a reasonable amount, the Department considered the adjective “casual” as used in the term “casual collecting”. The commonplace definition of casual includes the elements “happening by chance; not planned or expected”, “done without much thought, effort, or concern”, and “occurring without regularity” (“casual” Merriam-Webster.com. 2014. http://www.merriam-webster.com/dictionary/casual (4 March 2014)). The Department considers that in establishing the term “casual collection” rather than “amateur collection” or “hobby collection” or “recreational collection”, the Act intended that casual collection reflect the
commonplace meaning of “casual”, and that such casual collecting would generally be happenstance without intentional planning or preparation. The preamble discussion of the definition of casual collection has been modified to include this clarification. Consistent with such unplanned collection, a reasonable amount would generally be smaller rather than larger, and would not reflect site-specific and complex factors such as rock types and other field variables. The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per person per calendar year, not to exceed 25 pounds per person per day. Collection of amounts greater than the reasonable amount established for casual collection would require a permit.

*Comment:* Reasonable amount limits will discourage recreational fossil collection. One respondent expressed the view that the specified reasonable amounts could be exceeded in minutes, and would consequently discourage recreational and amateur collectors from making long distance trips to collect. One respondent suggested that limits on reasonable amounts would reduce the opportunity to use casually collected fossils in public education to stimulate interest in science among children. Respondents expressed the view that the specified limits on reasonable amount would be easy to violate unintentionally, and would criminalize casual collecting.

*Response:* Collection for recreational and/or educational purposes of amounts greater than the reasonable amount established for casual collection is not precluded by the regulations, but would require a permit. The Department could consider the intent and degree of non-compliance regarding collection greater than the established reasonable amount in decisions regarding potential enforcement.
Comment: Specified reasonable amounts will result in specimen loss by culling. Respondents expressed the view that imposing limits on reasonable amounts would lead to loss and/or destruction of specimens because collectors would high-grade, field-trim, and/or otherwise cull collected specimens in the field in order to meet specified collection limits.

Response: Collection of amounts greater than the reasonable amount established for casual collection would require a permit. The Department expects that responsible collectors would strive to minimize collateral damage to specimens resulting from culling and/or field-trimming. Discarded material would be considered as disturbed surface material in context of the negligible disturbance criterion.

Comment: Reasonable amount limits will not permit adequate scientific sampling. One respondent expressed the view that specified limits on reasonable amounts would result in inadequate sampling of fossil populations and tainted scientific hypotheses resulting from such samples. One respondent suggested that the reasonable amount limits are too low to be able assess fossil population variation and to document changes of such variation across gradients in space and time.

Response: Collection as described by the respondents for the purpose of obtaining sample sizes representative of the variation in a natural population would be considered research, not casual collection, and would require a permit.

Comment: Reasonable amount should be what can be safely stored in a personal residence. Two respondents suggested that reasonable amount be defined as the volume of material that can be safely stored in an individual’s personal residence. One
respondent suggested that reasonable amount should be defined as an amount of collected material that is capable of being properly transported and stored for future use.

Response: The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per person per calendar year, not to exceed 25 pounds per person per day. The amounts suggested by the respondents greatly exceed a reasonable amount considered in the context of casual collection. Collection of amounts greater than the reasonable amount established for casual collection would require a permit.

Comment: Limits on reasonable amounts will reduce collaboration between amateurs and professionals. One respondent expressed the view that the specified reasonable amounts will have a chilling effect on long term collaboration between amateur collectors, professional paleontologists, and repository institutions.

Response: The respondent’s suggestion that reasonable amount limits would reduce collaboration between amateur collectors, professional paleontologists, and repository institutions is conjectural and not substantiated. Amateur collectors may apply for a permit to collect amounts greater than the reasonable amount established for casual collection. In addition, the definition of reasonable amounts should not affect working relationships among parties interested in paleontological resources on National Forest System lands.

Comment: Collection of larger quantities for donation and/or education. One respondent suggested that clarification should be provided concerning whether or not quantities of abundant resources that exceed the specified reasonable amount could be collected for donation for educational purposes.
Response: Amounts greater than the reasonable amount limit established for casual collection would require a permit for collection.

Comment: Development of online certification instructional program. One respondent expressed the view that it would be beneficial for the Department to develop an online instructional and/or certification program providing guidance on collection of paleontological resources and responsible uses of the land and its resources.

Response: The establishment of an online instructional/certification program as described by the respondent has merit as a concept, but is beyond the scope of these regulations.

Comment: Reasonable amount criterion of not more than five specimens of any one kind is ambiguous and too restrictive. Respondents expressed the view that the reasonable amount criterion of not more than five specimens of any one kind is ambiguous and too restrictive. Respondents suggested that clarification should be provided concerning the meaning of “kind,” which could be interpreted to correspond to taxonomic ranks ranging from class to species. One respondent expressed the view that for small specimens, the limit of five could be exceeded in a single hand sample. Respondents suggested that the numeric limit be raised to ten specimens of any one kind, and one respondent suggested that the term “kind” be replaced by “morphotype”. One respondent suggested that the criterion of not more than five specimens of any one kind be eliminated.

Response: The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds.
per person per calendar year, not to exceed 25 pounds per person per day. The criterion of five specimens of any one kind has been eliminated.

Comment: Reasonable amount limits based on volume and/or size are too restrictive. Respondents expressed the view that reasonable amount limits per calendar year of 25 pounds, 1-gallon container or less, and/or one hand-carried slab are overly restrictive. Respondents suggested that fossils at many collection sites are so abundant that collection would have little impact, and those fossils that are not collected are destroyed by weathering. One respondent expressed the view that many well-known collecting areas look untouched. One respondent suggested that higher collection limits are necessary for amateurs to perform paleontological reconnaissance collecting for academic paleontologists.

Response: The Act stipulates that the regulations must define reasonable amount with respect to casual collection. Although fossils may be very abundant at some collection sites, they may not be universally abundant at all collection locations. The Department has considered public comments on the proposed regulations and modified the reasonable amount definition to comprise a single criterion of 100 pounds per person per calendar year. Paleontological reconnaissance collecting as described constitutes research, is not considered casual collection, and requires a permit.

Comment: Reasonable amount limits should be raised. Respondents expressed the view that the weight limit of 25 pounds per calendar year be raised to 25 pounds per day or 100 pounds per day. Respondents suggested that annual weight limit be raised to 50 pounds or 100 pounds or 200 pounds per year. One respondent suggested that the 1 gallon by volume yearly limit be raised to 4 cubic feet. One respondent expressed the
view that the hand-carried slab criterion be changed to a 100 pound weight limit per slab. One respondent expressed the view that clarification should be provided concerning whether the stated reasonable amount limits apply to individuals or families.

Response: The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per person per calendar year, not to exceed 25 pounds per person per day.

Comment: Reasonable amount that can be hand carried. Two respondents expressed the view that the criterion that a slab can be no larger than what can be hand-carried by a single person is unfair because the allowed amount would depend on the size and/or strength of an individual, rather than a uniform limit applied to all individuals.

Response: The Department has considered public comments on the proposed rule and has modified the reasonable amount definition to comprise a criterion of 100 pounds per person per calendar year, not to exceed 25 pounds per day.

Comment: Reasonable amount limits and fossils enclosed in rock matrix. Respondents suggested that clarification should be provided regarding whether or not rock matrix surrounding fossils is included in the limits, and suggested that destruction of fossils would result from collectors attempting to field-trim matrix from fossils to remain under limits.

Response: The reasonable amount limit would apply to the entire amount of material removed in a year, including fossils and any enclosing matrix. The Department expects that responsible collectors would strive to minimize collateral damage to specimens resulting from field-trimming. Discarded material would be considered as disturbed material in context of the negligible disturbance criterion.
Comment: Application of criteria for reasonable amount limits. Respondents expressed the view that reasonable amount limits reflecting volume and/or weight and/or numbers of specimens would be inconsistent and difficult to apply. Respondents expressed the view that clarification should be provided regarding which criterion would apply in cases where a collection could be characterized by more than one criterion. One respondent suggested that the limit of five specimens of any one kind would in many cases be very easy to exceed in a collection that might fit in a 1-gallon container and/or in a slab weighing 25 pounds.

Response: The Department agrees that multiple criteria for reasonable amount may be inconsistent and difficult to apply. Consequently the regulations have been modified to specify a single reasonable amount of 100 pounds by weight per person per calendar year, not to exceed 25 pounds per person per day.

Comment: Tracking annual reasonable amount collection limits. Two respondents suggested that clarification should be provided concerning how annual reasonable amount collection limits would be tracked.

Response: The Act does not require casual collecting to be tracked. However, in establishing a reasonable amount criterion for casual collection as stipulated by the Act, the Department expects that such reasonable amounts would not be exceeded by responsible members of the casual collecting public. The Department would rely largely on the ethics of an informed and law-abiding collecting public, who are aware of limits on casual collecting established in regulation and elect to legally collect within such limits. Documented collection of materials exceeding the reasonable amount without a permit could result in enforcement and penalty.
Comment: Reasonable amount limits applied to individual localities. One respondent expressed the view that reasonable amount limits by weight, volume, and/or number of specimens be applied to individual collecting localities, in order to facilitate collection at more than one locality. The respondent also suggested that distance and/or separation criteria could be applied to further define distinct collecting localities.

Response: Reasonable amount limits refer to absolute amounts, and are independent of number of collecting localities. Because number of collecting localities is not part of the definition of reasonable amount, there is no need to establish criteria to distinguish collection localities.

Comment: Authorized Officer modification of reasonable amount limits or collection times. Respondents expressed the view that an Authorized Officer should not be able to modify reasonable amounts or establish time periods for collection, because such decisions may be arbitrary and create precedents that are difficult to change. One respondent suggested that clarification should be provided concerning whether or not an Authorized Officer could increase limits above those specified for reasonable amounts if conditions allowed such collection.

Response: The Department agrees that reasonable amounts established in regulation should not be modified on a case-by-case basis, and has removed reference to the Authorized Officer in the definition of reasonable amount.

Comment: Proposed new term and definition—reconnaissance collecting. One respondent expressed the view that the term “reconnaissance collecting” be introduced and defined as exploratory collecting by amateurs, casual collectors, and/or academic researchers without a permit for the purpose of determining whether or not an area merits
future more comprehensive collection under permit. The respondent suggested that such reconnaissance collection be limited to hand tools, that disturbed surface areas not exceed 2 square meters, that excavations deeper than 1/2 meter on slopes less than 45 degrees must be back-filled, and that such collection would be performed by three or fewer individuals working at a location for 2 or fewer consecutive days.

Response: The activity that the respondent has described as reconnaissance collecting is considered collection for the purpose of research and not for personal use, and consequently requires a permit. The described activity constitutes research and does not merit creation or definition of a new term.

Section 291.6 Confidentiality of Information – General

Paragraph 291.6(a) implements the confidentiality provision contained at 16 U.S.C. 470aaa-8. This provision constitutes a statutory exemption from the disclosure requirements of 5 U.S.C. 552 (Freedom of Information Act) and other laws. For example, information about the nature and specific location of paleontological resources on National Forest System lands in an inventory document, scientific report, repository records, National Environmental Policy Act documents, or interpretive information, or information contained in existing Agency documents and records such as prior permits, may be withheld from disclosure or release to non-Agency personnel, unless the Authorized Officer determines in writing that disclosure would (1) further the purposes of the Act and these final regulations, (2) not create risk of harm to or theft or destruction of the resource or the site containing the resource, and (3) be in accordance with other applicable laws. This section would not limit the Forest Service’s authority to release information concerning the general location of paleontological resources.
Paragraph 291.6(b) clarifies that certain sharing of information concerning the nature and specific location of a paleontological resource does not constitute a disclosure or a release of that information. The Forest Service may wish to share information with certain non-Agency personnel for scientific, educational, or resource management purposes, without waiving the statutory exemption from disclosure provided by the Act. In certain situations, the Authorized Officer may share this information only with recipients who sign a confidentiality agreement in which the recipient agrees not to share the information with anyone else.

**Section 291.6—Response to Comments**

*Comment: Conflict of confidentiality of information with freedom of speech.*

Respondents expressed the view that confidentiality provisions regarding the nature and specific location of a paleontological resource conflict with the constitutional right to freedom of speech and are contrary to Congressional goals and Presidential mandates concerning open availability of data obtained during federally funded research.

*Response: The requirement in both the Act and these regulations for confidentiality of specific locations balances open communication about paleontological resources on National Forest System lands, and potential risks to such resources if specific locations are publicly disclosed. Provisions of the Act and these regulations regarding confidentiality of specific location information do not infringe on constitutional rights to freedom of speech. Rather, the Act and regulations require that confidentiality with regard to specific location information be maintained by individuals who choose to solicit and receive a permit from the Department to collect paleontological resources. Constitutional rights are subject to reasonable time, place, and manner restrictions;*
moreover, individuals are free to enter into agreements that constrain such rights if they choose to do so. Similar to constitutional rights, Congressional and Presidential policies concerning open availability of data obtained during federally funded research are also subject to reasonable time, place, and manner restrictions. For example, personally identifiable information obtained during the course of research is generally considered confidential and not subject to open disclosure. The appropriate level of specificity of location information that would be considered confidential would depend on the context of the occurrence, and the Department does not expect such restrictions to adversely impact communication of significant paleontological research information.

Comment: Appropriateness of confidentiality of specific location for certain paleontological resources. Respondents suggested that confidentiality provisions regarding the nature and specific location of a paleontological resource are too restrictive and not warranted by the nature of certain paleontological resources. Respondents suggested that requiring confidentiality of specific locations of rare paleontological resources, such as most vertebrate fossils, may be merited. In contrast, most plant and invertebrate paleontological resources are common, abundant, and their locations are seldom threatened by over collection. Consequently, respondents suggested that the requirement for confidentiality of specific location should not be the default condition, but rather should be discretionary based on the sensitivity of the paleontological resource in question.

Response: The regulations are consistent with the Act which specifies confidentiality of specific location information for paleontological resources, and does not distinguish among vertebrate, invertebrate, plant, common, abundant, uncommon,
and/or rare paleontological resources. In addition, the regulations and the Act specify certain conditions under which specific location information may be disclosed. The appropriate level of specificity of location information that could be disclosed would depend on the context of the occurrence.

Comment: Impedance of scientific research by confidentiality of information. Respondents expressed the view that confidentiality provisions regarding the nature and specific location of a paleontological resource will impede unrestricted communication of critical scientific data which is necessary to the practices of scientific verification and reproducibility. Respondents suggested that confidentiality of specific location data would prevent publication of scientific research in professional journals that require publication of locality information, would limit the utility of online paleontological research databases such as the Paleobiology Database, NEOTOMA, and EarthCube programs, and would prevent researchers from freely discussing research results with their colleagues. One respondent suggested that scientific publication of specific location information be exempt from the requirement for confidentiality.

Response: The regulations make allowance for the release of location information to qualified researchers with legitimate research needs. The appropriate level of specificity of location information that would be considered confidential and not subject to release for publication in professional journals and/or online paleontological research databases would depend on the context of the occurrence. The Department does not expect such restrictions to adversely impact communication of significant paleontological research information. Rather, the Department considers that the demonstration of legitimate research needs for such information may foster increased
communication among researchers and between researchers and the Department. A survey of the publication guidelines of professional research journals that are dedicated to, and/or regularly contain paleontological research content indicates that most journals do not require publication of specific location information. Those journals with stated requirements for publication of location information allow exemptions for protection of locations which may be placed at risk from such publication. Online paleontological databases exhibit a wide range in the specificity of location information that is recorded. The open and unrestricted availability of such specific location information published online highlights the need for the Department to control access to such information concerning sensitive locations on National Forest System lands. The Act does not provide allowance for a blanket exemption from the confidentiality requirement in the case of scientific publication of specific location information. On a case-by-case basis, the need for such publication may be considered in any decision by the Department whether or not to release such information, and/or the appropriate level of specificity of such location information that may be released.

Comment: Impracticality of written confidentiality agreements which can delay research publication. Respondents expressed the view that requiring written agreements from recipients of confidential information to maintain confidentiality of that information is burdensome, impractical, will impede informal and spontaneous verbal discussion and communication of scientific information between peer researchers, and may have a chilling effect on routine research based on collections containing specimens obtained from NFS lands. Respondents suggest that such restriction of open scientific communication may delay publication of research results. One respondent suggested that
the requirement of written confidentiality agreement from recipients of confidential information conflicts with requirements of the Paperwork Reduction Act.

Response: The Department agrees that a decision to release specific location information, in accordance with provisions of the Act and the regulations that would allow such disclosure, should not universally require the recipient of such information to sign a written confidentiality agreement. However, certain circumstances may merit such written agreement prior to release of confidential specific location information. The final regulatory language has been modified to indicate that a written confidentiality agreement may be required by the Authorized Officer.

Comment: Confidentiality and data management. One respondent expressed the view that specific location data must remain confidential, and that researchers, repository institutions, and their curatorial staff must demonstrate professional expertise in the management of confidential data in order to be party to a confidentiality agreement and/or be considered an approved repository.

Response: The Department agrees that parties in possession of collections for which specific location information is considered confidential should demonstrate professional expertise in the management of confidential data. Demonstration of professional expertise in this area would be addressed in a repository agreement and/or permit.

Comment: Repository professional staff and confidentiality agreements. One respondent expressed the view that professional staff members of a repository institution should not be individually required to sign confidentiality agreements.
Response: The regulations do not require that staff members of repository institutions must individually sign a confidentiality agreement. Rather, it is the responsibility of a repository to implement appropriate policies and procedures to ensure that confidentiality of specific location information is maintained as appropriate.

Comment: Confidentiality agreement process. Respondents expressed the view that clarification should be provided concerning who in the Department would authorize sharing of information in a confidentiality agreement, and whether the agreement process would be lengthy and impede scientific research.

Response: Particulars concerning the release of confidential specific location information would be addressed in a permit and/or repository agreement signed by the Authorized Officer. The Department considers that a party requesting the release of confidential specific location information would be expected to provide documentation of need sufficient to justify release of such information. The Department expects that the Authorized Officer will respond to requests for release of confidential specific location information in a timely manner.

Comment: Administration of confidentiality agreement. One respondent suggested that clarification should be provided regarding whether Agency personnel or repository personnel would administer a confidentiality agreement, and whether each request to a repository for confidential information must be referred to the Agency. The respondent also suggested that a sample confidentiality agreement be provided for review.

Response: The Department considers that the administration of a confidentiality requirement would be a shared responsibility of the parties in a repository agreement,
since such parties would each have access to the subject information. A confidentiality
and/or repository agreement would specify whether requests for confidential information
would be referred to the Agency or repository staff. It is not appropriate to provide a
sample confidentiality agreement in the body of the regulations. However, a generic
agreement concerning nondisclosure of sensitive but unclassified information that may be
referenced exists as Forest Service form FS-6600-5 (Rev. 12/2006).

Comment: Unintended consequence of not releasing specific location
information. One respondent expressed the view that confidentiality requirements may
result in repository institutions being reluctant to release specific locality information to
professionals performing background searches related to site assessment for proposed
ground disturbing projects. Such withholding of specific location information might
result in unintended adverse impacts to paleontological locations during subsequent
permitted site disturbance activity, because their locations were unable to be documented.

Response: Circumstances under which a repository might release confidential
specific location information would be addressed in a repository agreement. Such
information would be expected to be released to qualified professionals with a
demonstrated need for such information.

Comment: Loss of location information. Respondents suggest that unrestricted
publication of location information would ensure that locations of paleontological sites
will not be lost. Respondents expressed the view that confidential location data which is
maintained only in Department records may become inaccessible or lost and unavailable
to future researchers.
Response: Unrestricted publication of specific location information would not protect sensitive locations, which could be placed at risk by such publication. The Department considers that specific location information on file is secure, protected by such mechanisms as Agency records retention policies, and not subject to loss. Such information would generally be accessible to qualified professionals who demonstrate need for the information.

Comment: Specific location data. One respondent suggested that clarification should be provided regarding the level of specificity of location data that is considered confidential.

Response: The level of specificity of location information that would be considered confidential would in most circumstances reflect the context of the occurrence, and would be decided on a case by case basis. Coordinates obtained from Global Positioning System (GPS) devices, or from other sources with a comparable level of accuracy would generally be considered too specific for general release and would remain confidential.

Comment: Archaeological Resources Preservation Act (ARPA) and confidentiality. One respondent suggested that the confidentiality requirements in the proposed rule appeared to be based on the confidentiality provisions in ARPA, and that the ARPA template was designed for cultural resources and is not appropriate for paleontological resources.

Response: Confidentiality of specific location information protects resources at specific locations, whether such resources are paleontological, archeological, or other resources. A requirement for confidentiality of specific location information reflects a
common goal of resource protection. Consequently, observed parallels in regulatory requirements providing for such confidentiality in these regulations and ARPA would be expected and are appropriate.

Comment: Exemptions from confidentiality. One respondent expressed the view that case-by-case determinations for exemptions of the confidentiality requirement are not specified in the Act.

Response: The Act at 16 USC 470aaa-8 and these regulations at section 291.6(a) specify criteria representing case-by-case circumstances that an Authorized Officer may consider prior to making a decision concerning release of protected information.

Comment: Confidentiality requires closure of Federal monuments and parks. One respondent questioned whether the requirement for confidentiality of specific location information would require closure of Federal monuments and parks that have a paleontological focus.

Response: Confidentiality provisions would not be considered to apply to sites and areas whose locations are a matter of common public knowledge. Moreover, monuments and parks that have been established in specific recognition of their paleontological resources generally have staff resources and protective policies in place to ensure that such resources are not at risk related to their high public profile.

Section 291.7 Public awareness and education

Section 291.7 restates the provision in 16 U.S.C. 470aaa-2 for establishing a public awareness and education program about the significance of paleontological resources on National Forest System lands.

Section 291.8 Area closures
Section 291.8 implements 16 U.S.C. 470aaa-3(e) providing for restricting access to or closing areas to the collection of paleontological resources in order to protect paleontological or other resources or to provide for public safety. Closure of an area to non-collecting activities would continue to be authorized under separate authorities where appropriate.

Section 291.8—Response to Comments

Comment: Criteria for area closure. Respondents suggested that criteria for area closures be listed, and expressed the view that without specific criteria, decisions to close areas may be arbitrary. One respondent expressed the view that reference to reasons for area closure that are unrelated to paleontological resources could lead to arbitrary closure decisions.

Response: Area closures would reflect considerations related to paleontological resources and/or factors unrelated to paleontological resources that would in most cases be context-specific. Because such factors would likely be unique for any given instance of area closure, it is not practical to provide a comprehensive list of criteria in these regulations. The Department considers that area closure decisions would not be arbitrary and would be justified on a case by case basis.

Comment: Closure of area to all or some activities. One respondent expressed the view that clarification should be provided concerning whether area closures would pertain to all activities, or whether permitted collection may be allowed in closed areas.

Response: Activities that may be allowed in closed areas would depend on the reason for the closure, which may be unrelated to paleontological resources.
Consequently, permitted collection may or may not be allowed in an area closed to casual collection.

*Comment: Public involvement in closure decisions.* Respondents expressed the view that the Act stipulates that plans for paleontological resource management emphasize, where possible, collaborative efforts with non-Federal partners, the scientific community, and the general public. Respondents suggest that in accordance with this part of the Act, the Authorized Officer should consult with professional paleontologists and casual collectors who are familiar with the area in question, and provide public notice of intent to close, before closing an area for the purpose of protecting paleontological resources.

*Response:* Area closures are generally subject to National Environmental Policy Act (NEPA) procedures, including public notice of the proposed action, during which members of the public would be notified and public comments on the proposed action would be solicited.

*Comment: Paleontological resource protection through National Park or Landmark designation.* One respondent suggested that area closures should not be used to protect areas where casual collecting poses a risk to important paleontological resources. Rather, such areas should be protected as National Parks or Landmarks.

*Response:* The Department considers an area closure appropriate to protect resources to which the closure applies. National Park and/or Landmark designation is a lengthy process, during which resources at risk might be lost. Area closure is a more timely and focused response to protect resources at risk.
Section 291.9 Determination of paleontological resources

Section 291.9 only applies to National Forest System lands. Because of the Forest Service’s multiple use mandates, there may be situations where a determination of what is or is not a paleontological resource would be necessary to avoid resource or land-use conflicts such as under the 1897 Organic Act or the Multiple Use Sustained Yield Act.

Section 291.9(a) states that all paleontological resources from National Forest System lands are to be managed, protected, and preserved under these final regulations, unless a determination is made that they are not paleontological resources in accordance with § 291.9(b).

Sections 291.9(b) and 291.9(c) provides the Authorized Officer with a process to determine whether certain fossils should or should not be managed as paleontological resources as defined under the Act or these final regulations. Not all fossils are paleontological resources, as explained earlier in this preamble discussion of the term “fossil” as defined in § 291.5 of these final regulations. This determination would be based on scientific principles and methods, would be documented in writing, be prepared by a paleontologist with appropriate qualifications, and would provide the necessary framework to adhere to the savings provisions at 16 U.S.C. 470aaa-10 while satisfying the mandate at 16 U.S.C. 470aaa-1 that requires management using scientific principles and expertise. Such determinations may change over time as new information comes to light about the fossil. Fossils associated with an archaeological resource as defined in the Archaeological Resources Protection Act or any cultural items as defined in the Native
American Graves Protection and Repatriation Act are considered to be heritage resources and are not paleontological resources.

Section 291.9(d) affirms that mineral resources on National Forest System lands, such as coal, oil, natural gas, and other economic minerals which are subject to the existing mining and mineral laws, are not paleontological resources. Petrified wood as defined at 30 U.S.C. 611 means “agatized, opalized, petrified, or silicified wood or any material formed by the replacement of wood by silica or other matter,” and is a mineral material. However, in accordance with § 291.9(a), the Authorized Officer may determine that an occurrence of petrified wood is a paleontological resource and should be protected and preserved accordingly. Vertebrate fossils, including microvertebrate fossils, are always considered paleontological resources. Geological units, including, but not limited to, limestones, diatomite, and chalk beds that are intrinsically composed of fossil remains, but may be considered to be mineral materials or fossil soils, are not paleontological resources under the Act or these final regulations.

Section 291.9—Response to comments

Comment: Purpose and context of determinations. One respondent suggested that clarification should be provided regarding the purpose of making paleontological resource determinations, and questioned whether such determinations would be made in only specific circumstances, or whether making such determinations would be a default procedure in paleontological resource management.

Response: Fossils on National Forest System lands are considered to be paleontological resources unless they are excluded in accordance with the Savings Provisions of the Act, excluded by listing in paragraph (d) of the section, or determined
not to be paleontological resources in accordance with the procedures set forth in this section. Determinations generally would be performed only in context-specific circumstances where it may be necessary to clarify whether certain fossils are paleontological resources.

**Comment: Paleontological resource exclusions.** One respondent suggested that items listed in paragraph (d) of the section that are not considered paleontological resources are inconsistent with the definition of paleontological resources in §291.5 and a definition in § 291.11(c).

**Response:** Paleontological resources are defined in the Act, and the definition of paleontological resources in §291.5 of these regulations restates the definition of the Act. Section 291.11(c) of these regulations does not contain a definition of paleontological resources. Former item 3 of the referenced paragraph (d) of the section which referred to microfossils has been removed as it may have been considered inconsistent with the definition of paleontological resources. The remaining items in paragraph (d) have been renumbered to reflect the removal. Reference to paleosols in paragraph (d) has also been removed to provide additional clarification.

**Comment: Paleontological resource exclusions.** One respondent suggested that microbialites, including stromatolites, and non-vertebrate trace fossils should not be considered paleontological resources and should, therefore, be included with the list of items presented in paragraph (d) of the section.

**Response:** The definition of paleontological resources in the Act includes fossilized traces and imprints of organisms and does not differentiate between vertebrate
and non-vertebrate traces and imprints. Consequently, invertebrate traces, stromatolites, and microbialites are paleontological resources.

*Comment: Procedure and timeline for determinations.* Respondents suggested that clarification should be provided regarding the procedures to be used and the time frame for making paleontological resource determinations.

*Response:* The Department considers that the procedures for making determinations as set forth in this section are sufficiently detailed and clear, and respondents did not specify particular aspects of the stated procedures that might be considered unclear. Requests for determinations would be processed in a timely manner. The need for determinations would reflect case-specific considerations, and time frames for making determinations may reflect the complexity of such considerations.

*Comment: Authorized Officer qualifications.* Two respondents expressed the view that the Authorized Officer may not have sufficient paleontology qualifications to make paleontological resource determinations using scientific principles and expertise.

*Response:* From an administrative and organizational perspective, an Authorized Officer cannot be expected to have specialized expertise in every subject matter area in which they may be required to exercise decision-making authority. These regulations address this issue by specifying that a written recommendation for determination would be prepared by a paleontologist with expertise in the group of fossils in question, that such written recommendation would be reviewed by an Agency paleontologist, and that the Authorized Officer would consider the resulting recommendation of the Agency paleontologist in making a determination.
Comment: Paleontological subject matter experts: One respondent suggested that clarification should be provided regarding where the Authorized Officer would obtain paleontology subject matter experts to provide recommendations for paleontological resource determinations. Respondents expressed the view that the Department lacks an adequate number of paleontology specialists, possessing sufficient breadth of subject matter expertise, to effectively review proposed determinations and develop written recommendations for determination of paleontological resources as may be required.

Response: Paleontological subject matter experts are affiliated with a number of repository institutions with which the Forest Service maintains partnership agreements. Additional subject matter experts may be identified by searching recent paleontological publications in professional journals. Agency paleontologists advising the Authorized Officer making paleontological resource determinations are expected to have sufficient academic credentials to perform technical review of recommendations by subject matter experts and to present informed professional evaluations of such recommendations.

Comment: Disposition of fossils pending and after determination. In the case of casually collected fossils which may be subject to paleontological resource determination, one respondent suggested that clarification should be provided regarding the disposition of the fossils pending the determination, and specifically questioned whether the collector could keep the fossil until the determination was made. Another respondent expressed the view that clarification should be provided concerning how a fossil would be returned to a collector after a determination, and if a collector could request return of an “uncommon” fossil if it were not actively being used in research.
Response: The disposition of casually collected paleontological resources pending a determination would be a matter of discussion between the collector and the Authorized Officer. If specimens are held by the Agency pending a determination, written acknowledgment of the Agency’s possession of the specimens would be provided to the collector. Specimens determined to be common invertebrate and plant paleontological resources that were collected in accordance with conditions established for casual collection would generally be returned to a collector in the same manner as they were received by the Agency. Specimens that have been determined not to be common invertebrate and plant paleontological resources and/or that are found not to have been collected in accordance with conditions established for casual collection would not be returned to the collector.

Comment: Microfossils and vertebrate fossils: One respondent suggested that clarification be provided regarding the term “microfossils” as used with reference to vertebrate fossils, and suggested that using the term “microscopic vertebrate fossils” would provide such clarification.

Response: The reference to microfossils has been eliminated, so further clarification is unnecessary.

Section 291.10 Collecting

Section 291.10 restates 16 U.S.C. 470aaa-3(a)(1) and (2), which directs that a paleontological resource may only be collected from National Forest System lands in accordance with a permit issued by the Authorized Officer under these final regulations, except for casual collecting.
Section 291.10—Response to Comments

Comment: Restrictions on collection and exclusive use. One respondent expressed the view that neither amateur nor scientific collection of paleontological resources conflict with the Forest Service mission, but these final regulations governing collection will result in collection and use of paleontological resources being limited to individuals with influence.

Response: The Department agrees that amateur and scientific paleontological resource collection do not conflict with the Forest Service mission. The provisions for casual collection in the Act and these regulations codify, for the first time, the ability of the public to collect common invertebrate and plant paleontological resources from National Forest System lands without a permit, providing certain conditions are met. The requirement for a permit for collection that is not considered casual does not promote exclusivity. Anyone can apply for a permit to collect paleontological resources if they meet the relevant requirements of the Act and this regulation,

Comment: Reference to “paleontological resource” should be plural. One respondent suggested that the phrase “a paleontological resource” should be in plural here to read: “Section 291.10 would restate Section 16 U.S.C. 470aaa-3(a)(1) and (2), which directs that paleontological resources may only be collected in accordance with a permit issued by the Authorized Officer under these proposed regulations, except for casual collecting.”

Response: The Department retains the existing singular form of the term “paleontological resource” because the purpose of the cited passage is to restate the Act, which employs the term in singular form. The Department also considers that in this
case, there is no significant change in meaning related to use of the term in singular or plural form.

**Section 291.11 Casual collecting on National Forest System lands**

Section 291.11 restates 16 U.S.C. 470aaa-3(a)(2) that allows for casual collecting without a permit on certain National Forest System lands. Casual collecting, as defined in Section 291.5, is allowed on National Forest System lands where such collection is consistent with the laws governing the management of those lands and these final regulations. National Forest System lands would generally be considered open to casual collection unless otherwise closed to such casual collection as described in § 291.12. Section 291.11(d) and (e) states that the Authorized Officer can use the process in § 291.9(c) to make a determination that certain invertebrate or plant fossils are not common, and therefore, cannot be casually collected and must be collected under a permit. Section 291.11(d) provides the Authorized Officer with the ability to protect invertebrate and plant fossils when they are not common.

Section 291.11(f) clarifies that it is the responsibility of the collecting public to ensure that areas in which they are proposing to casually collect common invertebrate or plant fossils have not been closed to casual collection for reasons as described in § 291.12. Information regarding area closures would generally be available from the local District Office. Section 291.11(g) clarifies that paleontological resources collected from National Forest System lands in accordance with the casual collection provisions of §291.11 cannot be sold.
Section 291.11—Response to Comments

Comment: Research does not constitute casual collection. Respondents expressed the view that researchers often work using personal or public funds and they should not be subject to the time-consuming and unnecessary bureaucracy of having to obtain permits for collection of paleontological resources.

Response: Activities that do not meet the criteria applied to casual collection require a permit. Specimens obtained by casual collection must be for non-commercial, personal use. Research is not considered a personal use. Rather, research, based on the common definition of the term in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific community. Moreover, requirement of an authorization to perform research is consistent with existing Special Uses authorities, in which research and survey projects are generically considered to be activities that require a permit.

Comment: Research reconnaissance collection: Respondents expressed the view that collection of small quantities of common and abundant invertebrate and plant fossils for research, in accordance with conditions and limits applied to casual collection, should not require a permit for collection. Respondents suggested that the term “reconnaissance collection” be applied to such limited research collection. Respondents further expressed the view that such reconnaissance collection would normally occur in context of exploratory field surveys for the purpose of determining areas appropriate for subsequent comprehensive collection, which would then be subject to the requirement of a permit for
research collection. One respondent suggested that a streamlined permit be developed for reconnaissance collection of limited quantities of specimens entailing only minor surface disturbance.

Response: Reconnaissance collection as described by respondents is a professional scientific research activity, and professional scientific research requires authorization. Permit application requirements including description of the scope of the proposed activity and subsequent permit stipulations reflect the nature and scale of the proposed activity. Consequently, because project proposals reflect a wide range of complexity, and reconnaissance collection itself may vary in scope, there is no practical benefit to creating a separate permit for reconnaissance collection.

Comment: Research collection subject to more regulation than casual collection. Respondents expressed the view that research collection is adversely singled out for permitting and associated higher extent of regulation than casual collection, thereby subjecting researchers to a greater regulatory burden than the general public. Respondents expressed the view that the increased regulation imposed on professional paleontologists reflects lack of trust and respect for researchers relative to amateurs.

Response: The Act stipulates that casual collection without a permit is limited to non-commercial personal use, and that a permit is required for the collection of paleontological resources that is not in accordance with casual collection provisions. Research is not considered a personal use. Rather, research is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information, via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific
community. Moreover, requirement of an authorization to perform research is consistent with existing Special Uses authorities, in which research and survey projects are generically considered to be activities which require a permit. The requirement for a permit to collect paleontological resources for research purposes does not reflect lack of trust or respect for researchers, but rather is in accordance with provisions of the Act.

Comment: Elimination of permit requirement for collection of common invertebrate and plant fossils. One respondent suggested that the requirement for a permit to collect paleontological resources be restricted to vertebrate fossils and uncommon invertebrate and plant fossils.

Response: Casual collection of common invertebrate and plant paleontological resources without a permit is allowed, providing such collection conforms with all requirements applicable to casual collection.

Comment: Casual collection for educational purposes. Respondents expressed the view that clarification should be provided regarding whether casual collection without a permit would be allowed for educational purposes, such as developing teaching collections and collecting by participants on educational class field trips. One respondent suggested that clarification should be provided regarding whether the presence of a professional paleontologist leading an academic class field trip would trigger the requirement to obtain a permit to collect.

Response: Educational purposes may be considered related to personal education and public education. Collection for personal educational use would be allowed under casual collection, provided all requirements for casual collection are met. Collection for public educational use, such as use in dedicated earth sciences and/or paleontology
teaching collections formally maintained by an academic institution, would not be considered a personal use and would require a permit. The qualifications of a field trip leader would not by themselves trigger the requirement for a permit to collect during an academic class field trip, provided collections by individuals are for personal use, do not exceed individual reasonable amount limits and the collateral impacts to associated resources that may be caused by the group do not exceed negligible disturbance criteria established for casual collection. However, the nature of the trip, including number of participants and potential collateral impacts to associated resources, could trigger the need for a special use permit pertaining to group uses unrelated to paleontological collection. Questions pertaining to group uses unrelated to paleontological collection should be directed to special uses staff at the local Forest Service Field Office in which a field trip is planned.

Comment: Research on casually collected fossils. One respondent suggested that clarification be provided concerning whether research could be performed by amateurs on casually collected specimens, and whether research could be performed by researchers on specimens collected during preliminary field surveys in advance of obtaining a permit.

Response: Research, in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information, via scientific publication, which increases the body of knowledge available to a scientific community. If, at the time of collection, an amateur intended to perform research as described above on collected specimens, such collection must be made under permit. Specimens collected during preliminary field surveys, as
described by the respondent, are collected in the context of intent to perform research and would require a permit for collection.

Comment: Casual collection in significant locations: One respondent suggested that the significant scientific or historic context of certain paleontological resources and/or locations may warrant collection by permit only, even if the paleontological resources may otherwise be considered common and abundant.

Response: The Authorized Officer has the ability to consider such location-specific factors in formulating decisions pertaining to closing an area to casual collection and requiring a permit for collection of scientifically or historically significant paleontological resources that might otherwise be considered common and abundant.

Comment: Disposition of casually collected paleontological resources.

Respondents suggested that clarification should be provided regarding when paleontological resources are considered Federal property, particularly in the context of casual collection. Respondents also suggested that clarification be provided regarding whether casually collected paleontological resources may be donated to a repository. Respondents also expressed the view that clarification should be provided concerning whether the ownership title to collected specimens is transferred if specimens are donated to a repository, and how should title to specimens be documented. One respondent suggested that owners of casually collected fossils be allowed to return unwanted specimens to the Forest Service so that a suitable repository may be identified.

Response: The Department considers that Federal ownership of paleontological resources is effectively severed if those resources were legally collected in accordance with provisions for casual collection. Specimens that were casually collected with the
intent of personal use may be donated to a repository at a later time; however, collection with the intent to donate to a repository would not constitute casual collection and would require a permit. The Department does not expect this to be a commonplace scenario. The title of specimens that are legally collected in accordance with casual collection requirements is a matter to be decided by the parties to a transfer of ownership. It is the responsibility of the donating party to demonstrate to the receiving party that specimens were collected legally. Owners of casually collected specimens may attempt to return such specimens to the Forest Service, but the Forest Service is under no obligation to accept them.

Comment: Monitoring of casual collection. One respondent suggested that clarification should be provided regarding how the Department can effectively monitor casual collection, relative to more stringent regulatory requirements placed on professional permit holders.

Response: The Act does not stipulate a requirement for formal monitoring of casual collecting that is legally performed in accordance with the stipulated requirements. Monitoring of casual collection areas may be specified in a National Forest and/or National Grassland management plan or other management direction. The level of such monitoring would reflect management direction in that regard.

Comment: Common invertebrate and plant paleontological resources. Respondents expressed the view that more detailed information and publicly available guidance are needed concerning the criteria for recognition, and procedures for collection of common invertebrate and plant fossils.
**Response:** The Department considers that the Act and these regulations provide sufficient procedural direction regarding circumstances under which common invertebrate and plant paleontological resources may be collected in accordance with casual collection, or would require a permit for collection. Criteria for the recognition of invertebrate and plant paleontological resources that may be considered common would reflect factors including taxonomic identification and variables specific to local occurrences. The diversity of taxa and attributes related to their local occurrence that would be considered are not practical to list in regulation.

**Comment:** Determination of common invertebrate and plant paleontological resources. Respondents expressed the view that the Authorized Officer should be required to have input from qualified paleontologists prior to making determinations of whether certain fossils do or do not meet the definition of common invertebrate and plant paleontological resources. One respondent further suggested that prior to making a determination, the Authorized Officer be required to consult with at least two academic paleontologists and local amateur paleontologists as may be available and having experience with the fossils in question. One respondent also suggested that reference to “Using scientific principles and expertise…” be changed to “Using sound scientific evaluation and expertise…”

**Response:** The regulations specify that the Authorized Officer, prior to making a determination, would receive a recommendation prepared by a paleontologist with appropriate subject matter expertise and that such recommendation would be reviewed by an Agency paleontologist. An Agency paleontologist could recommend further consultation with additional subject matter experts as may be considered appropriate.
The language cited by one respondent referring to “scientific principles and expertise” restates the language of the Act and, therefore, will be retained without change.

Comment: Disposition of significant fossils after collection. One respondent expressed the view that clarification should be provided regarding how fossils that might be casually collected and subsequently determined not to be common invertebrate or plant paleontological resources would be returned to the public domain.

Response: If an uncommon invertebrate or plant paleontological resource was inadvertently collected during casual collection, the location from which the resource was collected should be identified and the specimen(s) should be returned to a Forest Service office for proper disposition.

Comment: Casual collection of common vertebrate fossils. One respondent suggested that an Authorized Officer be able to determine that certain vertebrate fossils from particular locations are common, unnecessary for research, and may be subject to casual collection.

Response: The Act specifies that casual collection applies to common invertebrate and plant paleontological resources, and does not provide that an Authorized Officer may determine that certain vertebrate paleontological resources may be subject to casual collection.

Comment: Unintentional collection of vertebrate fossils during casual collection. One respondent suggested the addition of language to specify that unintentional collection of vertebrate fossils which may be intermingled with casually collected common invertebrate and plant fossils is not considered a violation that such collected
vertebrate fossils cannot be sold, and if determined to be rare, they must be deposited in a designated repository.

**Response:** Department law enforcement specialists may employ discretion in enforcement sufficient to address circumstances of inadvertent casual collection of specimens which may be uncommon, not invertebrate, and/or not plant paleontological resources. Other language changes suggested by the respondent are already addressed in the regulations.

**Comment:** Responsibility of collecting public. Respondents expressed the view that it is not fair for the Department to place the burden of responsibility on the public to have knowledge of whether areas may be open or closed to casual collection. Respondents suggested that it is the Department’s responsibility to provide notice to the collecting public of areas that are closed to casual collection.

**Response:** The public is responsible for knowledge of regulations and local orders governing the use of National Forest Systems lands. It is responsibility of the Department to provide notice to the public of closed areas. Parties interested in casual collection of common invertebrate and plant paleontological resources from National Forest System lands are encouraged to contact the local administrative office for current information concerning potential access restrictions.

**Section 291.12 National Forest System lands closed to casual collection**

Section 291.12(a) and (b) clarifies that casual collecting is prohibited on National Forest System lands that are closed to casual collecting under these regulations, other statutes, Executive Orders, regulations, and land use plans. In addition, § 291.12(b)
clarifies that NFS lands that were closed to casual collecting prior to the Act remain closed to casual collecting.

Section 291.12—Response to Comments

Comment: Closure of areas to casual collection. Respondents expressed the view that closure of areas to casual collection assumes that subject lands belong to the Forest Service and not to U.S. citizens, and that such closures would be in conflict with the right of the public to casually collect, as established in the Act.

Response: The Act stipulates that access to areas may be restricted or closed to the collection of paleontological resources for cause, in addition to establishing the ability to casually collect providing certain conditions are met.

Comment: Area closure decisions and public consultation. One respondent expressed the view that a decision by an Authorized Officer to close an area to casual collection should require input from qualified paleontologists and the local collecting community.

Response: Area closure decisions are generally subject to National Environmental Policy Act public notice requirements, during which scoping of the proposed decision is performed, and public input is solicited as appropriate.

Comment: Posting of areas closed to casual collection. One respondent expressed the view that area closures should be posted to formally give notice to public that they are not allowed to casually collect in the posted area.

Response: Areas closed to collection of paleontological resources may or may not be posted, depending on the sensitivity of resources whose specific locations may be
considered confidential and which may be placed at risk by posting areas in which they occur.

Comment: Typographical error—statues/statutes. One respondent noted that the word “statues” as used in item (2) of this section should be corrected to “statutes”.

Response: The Department agrees that this is a typographical error and it has been corrected.

Section 291.13 Permits

Section 291.13(a) restates 16 U.S.C. 470aaa-3(b)(1) through (4) which are the criteria for issuing permits for the collection of paleontological resources from National Forest System lands.

Section 291.13(b) clarifies that issuance of a permit is within the discretion of the Authorized Officer.

At present, Forest Service permits for paleontological resource activities such as scientific and/or educational collecting and resource inventory surveys are issued as special use authorizations. Current paleontological resource permitting practices do not preclude development of paleontology-specific use permits as authorized under the Act which would be issued and administered by the Forest Service Minerals and Geology Management program apart from the special uses program. Development of such a paleontology-specific permit to authorize collection of paleontological resources is associated with the proposed information collection which is described in this preamble in the section titled Controlling Paperwork Burdens on the Public.
Section 291.13—Response to Comments.

Comment: Burdensome and overly restrictive requirements for permits to collect paleontological resources. Respondents expressed the view that permitting requirements and permitting are time-consuming, too restrictive, and comprise an unnecessary and unfunded bureaucracy. Respondents suggested that information required to obtain a permit is excessive, and that required information is irrelevant and often impossible to provide, particularly for locations of potential excavation areas which often cannot be specified in advance of actually performing permitted field work. Respondents expressed the view that the permitting process, including management and reporting requirements, is costly, cannot be administered in a timely manner, and provides no concomitant benefit to science. One respondent suggested that the permitting process limits the free and open exchange of scientific information. Another respondent expressed the view that the permit process be streamlined and simplified.

Response: The Act stipulates that a permit is required to collect paleontological resources when such collection does not conform to the conditions established for casual collection. Permits, by their nature, are restrictive instruments and establish operating standards to ensure that proposed collection of paleontological resources will not result in damage or loss of such resources both during and after the process of collection. Information requested from an applicant as part of a permit application conforms to Department standards and procedures concerning information collection, and is used to evaluate a proposal to collect and to evaluate the qualifications of the applicant relative to their ability to perform the proposed collection without damage or loss of specimens. The Department has historically administered permits in a timely manner, and considers
the permit process to be as streamlined and simplified as practicable commensurate with the intent to ensure paleontological resource preservation, thereby providing direct benefit to science. Assertions by respondents concerning the costliness of permitting and limits on the free and open exchange of scientific information are conjectural and not substantiated.

*Comment:* Permits for collection of common invertebrate and plant paleontological resources. Respondents expressed the view that permits for the collection of common invertebrate, plant, and trace fossils should not be required. One respondent suggested that permits for the collection of common invertebrate and plant fossils would be too costly and would hinder research on such paleontological resources.

*Response:* A permit would be required for collection of common invertebrate and plant paleontological resources if such collection does not conform to conditions established for casual collection. The assertion by a respondent concerning the costliness of permitting and hindrance on research concerning common invertebrate and plant fossils is conjectural and not substantiated.

*Comment:* Requirements for a permit for amateur collectors collaborating with researchers to collect paleontological resources. One respondent suggested that serious amateur collectors who collaborate with researchers should not be required to obtain permits to collect paleontological resources.

*Response:* Any collection of paleontological resources that does not conform to the conditions established for casual collection requires a permit. If a collector is named as a field participant on a permit held by another party, a separate permit would not be required to collect in relation to the permitted project.
Comment: Timely permit decisions. One respondent suggested that the regulations should include language specifying that the Agency will implement decisions regarding permitting in a timely manner.

Response: The Forest Service intends to process permits in a timely manner.

Comment: Cost estimates should be provided by the applicant as part of a permit application. One respondent expressed the view that non-binding estimates of the permit applicant’s costs related to a proposed action should be required as part of a permit application. The respondent suggested that many permit applicants do not fully appreciate the scope of real costs associated with collecting and subsequent curation of collections by repositories.

Response: The Department agrees that many permit applicants and permit holders do not fully appreciate the implications of their costs related to proposed projects involving collection of paleontological resources. However, it is beyond the scope of these regulations for the Forest Service to require the applicant to submit project cost estimates.

Comment: Specification of permitting for mitigation. One respondent suggested that the regulations should explicitly specify that permits are required for paleontological resource mitigation, in addition to research collection.

Response: Collection for mitigation purposes is clearly not a personal use, and so would not be considered casual collection and would require a permit in accordance with the regulations. Consequently, the addition of language to the regulations that would explicitly specify a permit requirement for mitigation collection is not necessary.
Comment: Mandatory permit issuance. One respondent expressed the view that the regulations state that permits must be issued to all applicants unless past actions preclude an applicant being qualified to hold a permit.

Response: The Department considers that permits are discretionary instruments, and that there is no requirement to issue a permit that has been applied for. However, it is expected that denial of a permit would be for cause.

Comment: Guidance regarding collection of common invertebrate and plant paleontological resources. One respondent expressed the view that more detailed information and guidance should be provided regarding the criteria and procedures for the collection of common invertebrate and plant paleontological resources.

Response: Common invertebrate and plant fossils may be casually collected or collected under permit, depending on the circumstances of collection. Information and guidance regarding whether casual collection is appropriate or whether a permit would be required are provided in the regulations. Procedures and requirements for obtaining a permit are discussed in the regulations, and additional information regarding permit forms and how to submit an application can be obtained from Forest Service paleontology program staff or from the local administrative unit office that would administer the permit. There are no formal procedural requirements for casual collection, apart from adherence to the stated conditions.

Comment: Permitted activities. One respondent suggested that the first sentence in the third paragraph of Section 291.13 as discussed in the Preamble, the phrase “…permits for paleontological resource activities such as collection and resource inventory surveys…” be amended to read “…permits for paleontological resource
activities such as scientific and/or educational collecting and resource inventory surveys…”

Response: The Department agrees that the suggested language change provides clarification and has incorporated the change.

Comment: Permits should be administered by professionally trained paleontologists. One respondent expressed the view that paleontology permits should be administered by professionally trained paleontologists employed by the Department. Respondent further suggested that if permits are administered by the Minerals and Geology program area, that they be afforded the same consideration as permits issued for extractive uses.

Response: Authorizations and permits for paleontological resource use activities would generally be issued by local administrative units, under policy direction provided by Agency paleontologists. The Department considers that permits for paleontological resource use activities would be afforded similar consideration as authorizations for extractive uses.

Comment: Typographical error. One respondent suggested that the citation to the Act in section 291.13(a)(4) is incorrect. The respondent stated that the existing citation which refers to “16 U.S.C. 470aaa Sec. 6304(b)(4)” should be corrected to read “16 U.S.C. 470aaa-3(b)(4)”.

Response: The Department agrees that the citation is not accurate and has corrected the typographical error.

Comment: Prohibition on use of collected materials for commercial purposes. Respondents expressed the view that some repository institutions create traveling exhibits
and/or other promotional media such as tour guides, calendars, and brochures to generate revenue, which could be considered a commercial purpose. Respondents questioned whether Federal specimens would be precluded from use in such exhibits and media. Respondents also questioned whether or not a repository institution housing Federal specimens would be precluded from employing such activities, and whether or not staff of institutions that employed such activities would be excluded from consideration for paleontological permits. One respondent suggested deletion of the clause “…otherwise used for commercial purposes” from § 291.13(a)(5) in order to allow the revenue-generating activities described above.

Response: The Department considers that prohibitions on commercial uses would generally apply to sale of paleontological resources. The issue of not-for-profit institutions using revenues generated from traveling exhibits and/or other promotional media that utilize Federal specimens for purposes of supporting collections management would be addressed in a repository agreement. Staff of institutions that employed such activities would not be excluded from consideration for paleontological permits.

Section 291.14 Application process

Section 291.14 sets forth the information that must be submitted by permit applicants to the Authorized Officer for the proposed collection of paleontological resources. The Forest Service may require additional information in order to support an application for a permit.

Section 291.14—Response to Comments.

Comment: Information required in permit application should be optional. One respondent suggested that information required to be provided in a permit application be
made optional, and expressed the view that determination of the need for a permit and required information to collect common invertebrate and plant paleontological resources for research purposes should be left to the discretion of the Authorized Officer.

Response: The Department considers that the information requested in a permit application is the minimum information necessary for staff specialists to evaluate a project proposal and provide a recommendation regarding permit issuance. Collection of paleontological resources for research purposes would require a permit, even if such resources could be considered common.

Comment: Each party listed on a permit application should include a resume.

One respondent suggested that all parties listed on a permit application be required to submit a current resume as part of the permit application.

Response: The permit applicant is required to submit a current resume; the permit applicant is responsible for ensuring that all other parties listed on the permit are qualified as appropriate for participation in permitted activities.

Comment: Regional or State-wide paleontology permits. One respondent suggested that consideration be given to issuance of Region- and/or State-wide paleontology permits to allow unanticipated collection of paleontological resources on an as-needed basis.

Response: The regulations do not preclude issuance of Region- and/or State-wide paleontology permits.

Comment: Responsibilities of permit applicant and repository institution are not distinguished. Respondents suggested that the requirements for a permit applicant to provide verification of a repository institution’s agreement to receive a paleontological
collection, and an acknowledgment that costs of curation will be borne by the applicant and/or repository institution confuses the respective responsibilities of the permit applicant and the repository institution during the permit application process. One respondent expressed the view that only collected paleontological resources that result in scientific publication be required to be housed in an approved repository.

Response: The Department considers that it is the responsibility of a permit applicant to demonstrate that arrangements have been made with a repository which has agreed to accept materials collected under permit, and to demonstrate that arrangements have been made for financing associated costs of curation that do not obligate the Forest Service. These demonstrations by the permit applicant are necessary in advance of issuance of a permit in order to ensure that collected materials are appropriately reposed and not “orphaned” after collection. The Act stipulates that paleontological resources collected under a permit be deposited in a repository institution, and does not distinguish between such resources that result in scientific publication and those that do not.

Section 291.15 Application qualifications and eligibility

Section 291.15(a) clarifies what information is needed from an applicant to demonstrate, to the satisfaction of the Authorized Officer, that the applicant is qualified to carry out the proposed permitted activity. These qualifications are important to ensure that the collection would be carried out in a professional and responsible manner.

Section 291.15(b) clarifies that the information submitted by an applicant must demonstrate that the proposed activity is eligible for a permit, in accordance with 16 U.S.C. 470aaa-3(b)(2)-(4).
Section 291.15—Response to Comments.

Comment: Permit requirements should refer to permit application rather than applicant. One respondent expressed the view that qualifications and eligibility requirements to obtain a paleontology permit should refer to the permit application rather than the permit applicant, in order to facilitate proposals by teams rather than individuals.

Response: A permit application would contain a project proposal and supporting materials provided by each permit applicant that demonstrate that the applicant(s) is/are qualified and eligible to obtain a permit. The Department considers that the suggestion to refer to the application rather than the applicant(s) is semantic rather than substantive, and that the existing statement of qualifications and eligibility requirements with respect to applicants does not discriminate against team proposals.

Comment: Requirement of a graduate degree in paleontology is too stringent. Respondents expressed the view that the requirement for a permit applicant to hold a graduate degree in paleontology or a related field is too stringent and discourages research and science. Respondents suggested that students in pursuit of a graduate degree in paleontology or related field be considered qualified to hold a permit. Respondents expressed the view that it would be impractical for graduate students to be listed on their academic advisors’ permits because such advisors may have several students working in different field areas at the same time and could not provide direct field supervision to each student in each area. Respondents suggested that the requirement for a graduate degree in paleontology will prevent self-educated nonprofessional, avocational, and/or amateur paleontologists from furthering their knowledge in paleontology, and expressed
the view that permits should be made accessible to non-professionals without graduate degrees.

*Response:* The specification of a graduate degree in paleontology or a related field is not the sole criterion that may be considered regarding an applicant’s qualifications. The regulations explicitly specify an alternative criterion of training and/or experience commensurate to the nature and scope of the proposed activities. The rule language has been slightly modified to clarify that training and/or experience need only be commensurate to the nature and scope of the proposed project. The regulations do not specify that a graduate student must be listed on an advisor’s permit. Non-professional paleontologists without graduate degrees may be qualified to obtain a permit providing that they can demonstrate training and/or experience commensurate with the proposed activity.

*Comment: Permit application by casual collectors.* One respondent questioned whether or not casual (non-academic) collectors would be eligible apply for a permit to collect paleontological resources.

*Response:* Casual (non-academic) collectors may apply for a permit provided they meet eligibility requirements and can demonstrate training and/or experience commensurate with the proposed activity.

*Comment: Requirement of paleontological expertise is too restrictive.* Respondents expressed the view that requiring a permit applicant to demonstrate paleontological expertise, or requiring permitted paleontologists to be present during collection of paleontological resources, is too restrictive. Such requirements would make it difficult for geologists without paleontological expertise to perform field research that
might require collection of paleontological specimens for the detailed characterization of geological strata.

*Response:* A permit applicant may possess paleontological expertise or be able to demonstrate training and/or experience commensurate with the nature of the proposed activity. Depending on the nature of the proposed activity, such training and/or experience may not require specialized paleontological expertise. The regulations do not require that a permitted paleontologist with specialized paleontological expertise be present during permitted activities.

*Comment:* Requirement for experience pertaining to field work logistics is not necessary. One respondent expressed the view that requiring an applicant to demonstrate experience in logistical aspects of performing paleontological field work is unnecessary. The respondent suggested that ensuring proper logistical preparation for field work should be the responsibility of the applicant, not the Forest Service, and that the applicant should only be required to demonstrate qualifications, and be held responsible for, actual field collection of specimens and associated information.

*Response:* An applicant is required to demonstrate experience in logistical aspects of field work commensurate with the nature of the project proposal. The rule language has been slightly modified to clarify that experience need only be commensurate to the nature and scope of the proposed project. This requirement ensures that specimens will not be lost or damaged resulting from a permit holder’s failure to successfully complete work in the field.

*Comment:* Transferability of qualifications. Respondents suggested that permit applicants who have successfully demonstrated the qualifications to be issued a permit in
one administrative unit should also be considered to be qualified to perform similar activities in other administrative units.

Response: Projects may differ enough in nature and scope that qualifications demonstrated by an applicant for one project may not pertain to other projects proposed by the same applicant. Permits are generally administered by the local Forest Service office which manages the lands on which a proposed project is located. It is at the discretion of the permit-issuing office whether or not to accept an applicant’s qualifications which have been demonstrated elsewhere for other projects.

Comment: Requirement of additional qualifications by the Authorized Officer may be arbitrary. Respondents expressed the view that the ability of an Authorized Officer to require that a permit applicant hold qualifications that are not listed in the regulations may result in arbitrary requirements being imposed and lead to non-uniform, inconsistent permitting criteria employed by the Forest Service. One respondent suggested that the ability of an Authorized Officer to require additional applicant qualifications be eliminated.

Response: The Department recognizes that decisions to issue a permit may reflect location- and/or context-specific circumstances that are unrelated to the paleontological resource in question or the paleontological qualifications of an applicant. A decision whether or not to issue a permit may reflect an applicant’s qualifications in areas unrelated to paleontology that are pertinent to such case-specific circumstances as may apply. The language of the regulations has been slightly modified to indicate that additional qualifications as may be required would relate to context-specific factors associated with the proposed project.
Section 291.16 Terms and conditions

Section 291.16(a), (b) and (c) restates 16 U.S.C. 470aaa-3 (c)(1) through (3) in specifying requirements for the issuance of a permit for the collection of paleontological resources. The permittee would acknowledge that paleontological resources collected from National Forest System lands under a permit remain property of the United States; that the paleontological resources collected, along with associated records, would be preserved for the public in an approved repository to be made available for scientific research and public education; and that specific locality data would be kept confidential.

Section 291.16(d) through (r) establishes requirements to ensure that all permitted activities would comply with and further the purposes of the Act, these final regulations, any additional stipulations, and other Forest Service contract authorities and requirements.

Section 291.16(r) provides for the incorporation of additional permit stipulations, as may be appropriate, that were not otherwise listed in § 291.16(a) through (q). Examples of such additional stipulations would include, but not be limited to, reclamation plans and posting of reclamation bonds. The addition of permit terms, conditions, or stipulations requiring a reclamation plan or bond, or both, to ensure reclamation of surface disturbance associated with paleontological resource collections would be at the discretion of the Authorized Officer under these regulations, and such requirements would be based on conditions specific to the authorized activity.
Section 291.16—Response to Comments.

Comment: A valid repository agreement should be part of the permitting process. Respondents expressed the view that an agreement by a repository to house collected specimens should be a requirement in decisions to issue a permit to collect paleontological resources.

Response: The Department agrees that a valid repository agreement should exist prior to issuing a permit to collect, and such requirement is stated in § 291.14(e) regarding the permit application and is re-stated in § 291.16(b) regarding permit terms and conditions.

Comment: Permit terms and conditions should apply to the permit holder, not to the repository institution. Respondents expressed the view that permit terms and conditions should apply only to the permit holder and not to the repository institution which has agreed to accept collected materials. Respondents suggested that because the repository is not a signatory to a permit, it should not be held responsible for compliance with terms and conditions as set forth in a permit.

Response: The Department agrees that permit terms and conditions apply only to the permit holder and not the repository. The language referring to the repository with regard to collections maintenance costs has been slightly modified to clarify that the issue of curation-related funding is a matter that may be addressed by the permit holder and the repository in an agreement separate from the permit. However, it is ultimately the responsibility of the permit holder, at the time of permit issuance, to demonstrate that funding is available to support curation of the specimens that would be collected under permit.
Comment: Permit terms and conditions are too restrictive and limit the free exchange of scientific information. One respondent suggested that the terms and conditions of a permit are overly restrictive, and limit the free and open exchange of scientific information.

Response: The Department considers that the respondent’s suggestion that the terms and conditions of a permit are overly restrictive and limit the free and open exchange of scientific information is conjectural and not substantiated. Permit terms and requirements are considered to be the minimum necessary to ensure that collected specimens are appropriately protected and preserved.

Comment: Limits on tool size and amounts of materials collected under a permit. Respondents questioned whether or not collections of paleontological resources made under permit would be subject to the same criteria as established for casual collection, particularly with respect to limits on size of collecting tools and limits on weight and/or volume of collected materials. One respondent expressed the view that the regulations place undue limits on the volume of materials collected under permit.

Response: Conditions established for casual collection would not apply to collection under permit. The nature of collection tools and amounts of collected materials would be context-specific and established in the permit.

Comment: Undue limits on exploration for new fossil-bearing localities under a permit. One respondent expressed the view that the regulations place undue limits on the ability to explore for new fossil-bearing localities under a permit.

Response: The regulations do not address or otherwise place limits on exploration for new fossil-bearing locations while working under a permit.
Comment: Specimens collected under permit should not have to be immediately deposited in a repository. Several respondents expressed the view that serious amateur collectors and researchers who are not affiliated with a repository be allowed to retain possession of collected specimens while they are studying or performing research on them.

Response: The regulations do not specify a deadline for depositing specimens in a repository after collection. A time frame for timely transfer of collected materials by a permit holder to a repository would be specified in the permit.

Comment: Paleontological resources should be preserved in perpetuity. One respondent suggested that reference to preserving paleontological resources that are collected under permit in an approved repository be amended to indicate that such resources will be preserved for perpetuity for the public in an approved repository.

Response: The Department agrees that there is an expectation that specimens deposited in a repository will be preserved in perpetuity. However, a repository may not be able to provide written assurance that such preservation would be in perpetuity. Rather, the term of preservation would be addressed in a repository agreement.

Comment: Paleontological resources should be made available to qualified individuals. One respondent expressed the view that reference to making paleontological resources deposited in a repository available for scientific research and public education should be amended to indicate that such resources be made available to qualified individuals for scientific research and public education.

Response: The Department considers that paleontological resources which have been deposited in a repository are held in trust for the benefit of the public, and that
formal restriction of access to such resources to qualified individuals is beyond the scope of the regulations.

Comment: Requirement for deposit in a repository does not distinguish between fossils collected for research or educational purposes. Respondents expressed the view that fossils collected for educational purposes and/or teaching collections in academic departments should not be subject to the same requirement to be deposited in a repository as research collections. Respondents also suggested that common invertebrate and plant fossils should not be required to be deposited in a repository.

Response: The definition of repository in the regulations allows for deposition of specimens collected under permit into teaching collections maintained by educational institutions. Common invertebrate and plant paleontological resources subject to casual collection do not need to be deposited in a repository; however, common invertebrate and plant paleontological resources that are collected under a permit must be deposited in a repository.

Comment: Release of specific locality data should not be restricted. Respondents expressed the view that terms and conditions of permits should not include restriction on release of specific locality data. Respondents suggested that permits require full and open disclosure of specific location information, with exception to full disclosure only in cases where collected specimens have a high market value and/or locations would be placed at risk by such disclosure. Respondents suggested that full disclosure of location data is necessary to provide full scientific value of collected specimens, and that separation of location information from specimens is irresponsible and may result in permanent loss of specific location information. Respondents expressed the view that
rigid enforcement of confidentiality provisions would be onerous and jeopardize routine use of collections.

Response: Confidentiality of specific location information is required by the Act, and the regulations require that confidentiality with regard to specific location information be maintained by individuals who choose to solicit and receive a permit from the Forest Service to collect paleontological resources. The Forest Service may consider the context of the permitted project and collection locations in determining the appropriate level of specificity of location information that would be considered confidential. The Department does not consider that maintaining confidentiality of specific locations requires separation of specific locality information from specimens. Respondents’ suggestion that enforcement of confidentiality provisions would be onerous and jeopardize routine use of collections is conjectural and not substantiated by data. Many repositories already house specimens, such as cultural archeological materials and endangered species, which are used in research and whose collection locations are considered confidential.

Comment: Specific location information that can or cannot be released. One respondent suggested that general location information be allowed to be released, and expressed the view that clarification should be provided regarding the level of specificity of location information (that is, identification of State, and/or county and/or specific geologic unit in which location occurs) that could be allowed to be released.

Response: The level of specificity of location information that would be considered confidential would in most circumstances reflect the context of the occurrence, and would be decided on a case by case basis. Coordinates obtained from
Global Positioning System (GPS) devices, or from other sources with a comparable level of accuracy would generally be considered too specific for general release and would remain confidential. Criteria for determining the appropriate level of specificity of location information would relate to case-specific circumstances and would not be appropriate to list in regulations.

Comment: Permit holder should be accorded responsibility to determine the appropriate level of specific location information for release. One respondent expressed the view that in being awarded a permit, a permit holder should be recognized by the Forest Service as being capable of making certain types of decisions without prior authorization, including being responsible for determining an appropriate level of specific location information that can be released.

Response: The appropriate level of specific location information that would be considered for release would be specified in permit terms and conditions. A permit applicant may provide suggestion, with justification, for the appropriate level of specific location allowed for release in the permit application.

Comment: Acknowledgment of the Forest Service in public communications resulting from collections. One respondent expressed the view that it would be difficult for a permit holder to comply with the requirement to acknowledge the Forest Service in public communications concerning collected materials after the collection has left the permit holder’s possession and has been transferred to a repository where other users may access the collection. The respondent also suggested that a permit holder may acknowledge the Forest Service in good faith, but that a communications medium may remove the citation prior to distribution.
Response: The language of the regulations has been modified to clarify that a
permit holder would only be responsible for acknowledging the Forest Service in public
communications resulting from the permit holder’s use of collected materials. The Forest
Service would consider good faith efforts by a permit holder to provide such
acknowledgment, in circumstances as described by the respondent where lack of
acknowledgment relates to factors beyond the control of the permit holder.

Comment: Timely issuance of repository catalog numbers may be beyond control
of permit holder. One respondent expressed the view that a permit holder should not be
required to adhere to a 1-year deadline for submittal to the Forest Service of a list of
catalog numbers assigned by a repository to collected specimens. The respondent
suggested that repositories may not assign catalog numbers to specimens in a timely
manner, and that a permit holder may have no direct influence over when catalog
numbers are assigned. The respondent suggested that the requirement be changed to
accession numbers rather than catalog numbers, and/or that the time frame for submittal
of catalog numbers be flexible.

Response: The regulations do not specify a 1-year deadline for submittal of
repository-issued catalog numbers for specimens collected under permit. Rather, the
regulations refer to a timeline, to be established in the permit, for submittal of a complete
list of collected specimens and their current locations. Reference in the regulations to
submittal of repository accession and catalog numbers in permit reports has been
modified to clarify that submittal of accession and/or catalog numbers would be allowed,
to account for circumstance wherein a repository may have assigned accession numbers
to specimens but has not yet issued catalog numbers for those specimens.
Comment: Permit application requirements and terms and conditions do not distinguish between responsibilities of permit holder and repository. One respondent expressed the view that requiring a permit holder to identify a repository institution, provide documentation that the identified repository has agreed to accept collected materials, and that a permit holder be responsible for cost of curatorial activities associated with collected specimens does not distinguish between the roles and responsibilities of the permit holder and the repository institution with respect to the permitting process, and that such roles and responsibilities should be clarified.

Response: The Department recognizes that the roles and responsibilities of a permit holder and repository concerning proposed collections and subsequent collections management activity are often interrelated and difficult to disentangle. With regard to permitting and permit terms and conditions, the Department considers that it is necessary for a permit applicant to establish in the application and for the Department to recognize at the time a permit is issued, that an appropriate repository has been identified, that the repository has agreed to accept the collections, and that financial mechanisms are in place to ensure continued professional management of the collected specimens. Because the permit applicant is proposing the collection activity, it is the applicant’s responsibility to provide documentation that identifies an appropriate repository, to document that the repository has agreed to accept the collection, and to document that necessary funding has been secured to ensure collection maintenance. These issues must be addressed in the application and/or at the time a permit is issued, in order to minimize the possibility of issuing a permit that results in an orphaned collection.
Comment: Requirement to comply with tasks specified by Authorized Officer is too broad. One respondent suggested that the requirement for a permit holder to comply with all tasks required by the Authorized Officer, even in the event of permit expiration, suspension, or revocation is too broad. The respondent suggested that the word “tasks” be replaced by “terms and conditions” or “permit requirements.”

Response: The Department agrees that reference to “tasks” is overly broad, and has replaced “tasks” by “permit requirements” to clarify the permit holder’s continued obligations in the event of permit expiration, suspension, or revocation.

Comment: Additional permit conditions should not be allowed. Respondents expressed the view that the provision allowing for additional permit stipulations, terms, and conditions that are not already listed is too broad. Respondents suggested that the ability to add permit requirements could result in requirements that are arbitrary and that are not based in science and/or regulatory standards, and also suggested that reclamation of collection sites should not be a universal permit requirement.

Response: The Department requires the ability to establish permit terms and conditions that may be unrelated to paleontological resources, but are necessary to address location-specific conditions. The regulations do not specify site reclamation as a universal permit requirement.

Section 291.17 Permit reports

Section 291.17 lists the information that is necessary for permittees to include in the reports required under a permit to conduct paleontological activities. This information is required in order to address 16 U.S.C. 470aaa-1 which states that the
Secretary shall manage paleontological resources using scientific principles and expertise.

Section 291.17—Response to Comments.

Comment: Required content of reports should apply only to permit reports.

Respondents noted that the permit report requirements as listed in § 291.17 should apply only to permit holders and not to repository institutions, because a repository institution is not a signatory to a permit and should not be held responsible for addressing permit requirements. One respondent suggested that the term “museum agreements” be removed from the title of § 291.17 to clarify that the report content requirements listed therein pertain only to permit reports.

Response: The Department agrees with respondents’ comments and the heading of § 291.17 has been changed to clarify that the section applies to permit reports and not to repositories.

Comment: Required content of reports is burdensome. Respondents expressed the view that the required content of permit reports is overly comprehensive, burdensome, and limits the free and open exchange of scientific information.

Respondents suggested that required items be considered optional, and that the phrase “as appropriate” be added to requirements concerning identification of potential impacts to paleontological resources and mitigation recommendations to address identified potential impacts. Respondents suggested that requirements to supply repository-issued accession numbers and catalog numbers reflect repository processing time and are beyond the control of permit holders. One respondent suggested that up to 2 years following the end of field work be allowed for a permit holder to supply required information concerning inventories of collected specimens and collection locations.
Response: The Department considers that the specified report content is the minimum information necessary for the Forest Service to be able to evaluate work performed under permit and use such evaluations as the basis for managing its paleontological resources using scientific principles and expertise. Respondents’ suggestions that report content is burdensome and limits the open exchange of scientific information are conjectural and not substantiated. The regulations already state that all items listed as report content are to be included “as appropriate”. The regulations do not specify a 1 year deadline for submittal of a permit report, including content related to repository-issued accession and catalog numbers for specimens collected under permit. Rather, the regulations refer to a timeline, to be established in the permit, for submittal of the permit report. Reference in the regulations to submittal of repository accession and catalog numbers in permit reports has been modified to clarify that submittal of accession and/or catalog numbers would be allowed, to account for circumstance wherein a repository may have assigned accession numbers to specimens but has not yet issued catalog numbers for those specimens.

Section 291.18 Modification of permits

Section 291.18 provides the framework for the modification of permits, in accordance with 16 U.S.C. 470aaa-3(d). Examples of a permittee’s request for permit modification would include, but would not be limited to: changes to the persons listed on the permit, changes to the scope of work (including, but not limited to, geographic area, analysis or collecting techniques, or geologic strata), change of the designated approved repository, or changes to the permit timelines. Modification of a permit would be
discretionary on the part of the Authorized Officer (see § 291.13(b)). Notifications regarding modifications would be in writing.

Section 291.19 Suspension and revocation of permits

Section 291.19(a) and (b) provides for the suspension or revocation of permits in accordance with 16 U.S.C. 470aaa-3 (d)(1) and (2). Suspensions would address a variety of management issues that may or may not be due to any fault of the permittee. For example, the Authorized Officer would be able to suspend a permit if conditions relating to other resources have changed. The Authorized Officer would also be able to suspend a permit for any violation of a term or condition of the permit, such as exceeding the approved scope of work.

A permit may also be suspended if permittee becomes ineligible to hold a permit. Examples of ineligibility include, but are not limited to, situations where the permittee is responsible for resource damage, if the approved repository is no longer available, or if the permittee provided false information to the Authorized Officer as part of the application for the permit.

A suspended permit may be revoked if the permittee fails to correct the reason(s) for the suspension in accordance with the notification by the Authorized Officer. Permits that are suspended for reasons other than the permittee’s conduct (for example, resource management closures, wildfires, and so forth) will not be revoked. Such circumstances will result in continued permit suspension until the situation is corrected, or in some cases, the permit may be modified.
Section 291.20 Appeals

Section 291.20 clarifies that a permittee may appeal the denial or revocation of a permit in accordance with 36 CFR part 214. Procedures for appealing a permit revocation or denial are set forth in 36 CFR part 214.

Section 291.21 Curation of paleontological resources

Section 291.21 clarifies that paleontological resources from National Forest System lands collected under a permit issued under these regulations must be deposited in an approved repository. Collections made from National Forest System lands before the effective date of these regulations would be covered under the terms of the original collection permit or agreement. Such instruments remain in effect and the collections remain Federal property. Repositories are encouraged to work with the Forest Service to ensure that the care of pre-existing collections meet the minimum requirements of these regulations.

Section 291.21—Response to Comments

Comment: Uniformity of repository requirements between the Departments of Agriculture and Interior. One respondent expressed the view that regulations concerning repositories be consistent between the Departments of Agriculture and Interior, so that repositories who maintain collections from both Departments would not have to implement separate standards of curation that would be costly and unnecessarily burdensome. The respondent suggested that the development of these regulations be suspended until versions from both the Departments of Agriculture and Interior are available for simultaneous review so that uniform standards may be established.
**Response:** The Departments of Agriculture and Interior closely coordinated the drafting of requirements related to repositories in their respective regulations, and the applicable repository standards are in substantive agreement. The Department does not consider that a requirement for separate standards of curation would be imposed on repositories, and the regulations explicitly state that a repository approved by a Federal agency or bureau may be considered an approved repository by the Forest Service. Consequently, there is no need for simultaneous review of the respective regulation of the Departments of Agriculture and Interior regarding the establishment of uniform repository standards.

**Comment: Non-research collections.** Respondents suggested that the requirement for all collections of paleontological resources made under permit to be deposited in an approved repository is unreasonable. Respondents noted that this requirement may preclude collections for teaching purposes, many of which are housed in academic institutions rather than research-oriented repository institutions. Respondents also suggested that research collections of common invertebrate and plant paleontological resources be exempted from the requirement to be deposited in an approved repository. Respondents suggested that curation of common invertebrate and plant paleontological resources is costly and will hinder research, and that many repositories will not accept collections of common specimens owing to curation resource limitations.

**Response:** The definition of repository in the regulations allows for deposition of specimens collected under permit into teaching collections maintained by educational institutions. The suggestion that repositories may reject collections of common
invertebrate and plant paleontological resources owing to resource limitations is conjectural, and no examples of such practice were offered. The regulations conform to the Act, which states that permitted collections of paleontological resources must be deposited in an approved repository, and which does not provide an exception for common invertebrate and plant paleontological resources. Use of specimens in research that are not properly curated would increase the risk of their loss, damage and/or misappropriation, all of which pose greater risk of hindering research than costs associated with appropriate curation of such specimens, which would ensure their availability to future researchers.

Comment: Additional information should be provided for common paleontological resources. One respondent expressed the view that more detailed information and guidance should be provided concerning criteria and procedures for storing, preparing, and documenting common paleontological resources.

Response: Common invertebrate and plant paleontological resources collected under permit would be subject to the same repository requirements as other paleontological resources collected under permit. Collection management functions such as storage, preparation, and documentation are the responsibilities of a repository, and are beyond the scope of the regulations to address.

Section 291.22 Becoming an approved repository

Section 291.22 states the requirements for becoming an approved repository. Section 291.22(a) states that the repository must meet the minimum standards in § 291.23 and agree to certain terms and conditions. Section 291.22(b) states that the Authorized Officer and the repository official may enter into a formal curation agreement in
accordance with § 291.26. Section 291.22(c) explains that the repository must agree to periodic inventories and inspections as described in § 291.25. Section 291.22(d) clarifies that an Agency paleontologist in consultation with the repository official will make a determination of the content of the collection to be curated based on scientific principles and expertise. Section 291.22(e) explains that a repository that has been approved by one Federal agency may be considered approved by other Federal agencies. For example, a repository approved by the Forest Service may be considered approved by the Bureau of Land Management and vice versa.

Section 291.22—Response to comments

Comment: Content of Collections. Respondents suggested that clarification should be provided concerning how the Authorized Officer will consult with a repository to determine the content of collections prior to their being deposited, and expressed the view that undue interference by the Authorized Officer may result in a repository declining to accept a collection. Respondents suggested that repositories generally maintain a defined scope of collections and that repository staff expertise is most appropriate to determine repository collection content. Respondents suggested that repository staff expertise should be relied on to make collection content decisions, that consultation with the Authorized Officer each time specimens are deposited would be burdensome, and that consultation with the Authorized Officer should be limited to circumstance where questions arise. Respondents also expressed the view that clarification should be provided regarding the disposition of specimens that are not appropriate for repository collections.
Response: The process for determining the content of collections to be deposited in a repository institution will be established in a repository agreement. The terms of the repository agreement will determine the degree of latitude offered to the repository institution in determining the content of deposited collections, and circumstances that may require consultation with an Agency paleontologist regarding the content of permitted collections to be deposited will be described in the repository agreement. The roles of the Authorized Officer and agency paleontologist in determining the content of deposited collections are clarified by replacing the phrase “the Authorized Officer” with “an Agency paleontologist” in § 291.22(d) of the regulations. The manner of disposition of collected specimens that are not appropriate for a repository’s collections will be established in a repository agreement and/or through discussion with an Agency paleontologist.

Comment: Release of specific locality data. Respondents suggested that clarification should be provided regarding the level of specificity of locality data to be considered confidential, and suggested that the requirement of signed confidentiality agreements for recipients of specific locality information could delay or impede publication of research results in scientific journals that require publication of locality information.

Response: The level of specificity of location data to be considered confidential cannot be addressed appropriately in regulation, as such level will commonly reflect local considerations that are specific to the paleontological resource in question. Coordinates obtained using Global Positioning System (GPS) devices or geographic coordinates that reflect a comparable level of accuracy would generally be considered too specific. The
suggestion that research publication could be delayed or impeded by the requirement for written confidentiality agreements from recipients of protected information is conjectural. A survey of publication requirements for a number of scientific journals that exclusively or commonly contain paleontology articles has demonstrated that most journals either do not require publication of specific location information, or make provision for not publishing such information for sensitive locations where public knowledge of specific locations presents risk to the resource.

Section 291.23 Minimum requirements of approval of a repository

Section 291.23 states the minimum requirements that a repository must meet in order to be approved to provide long-term curatorial services for Federal paleontological collections. It is important to establish such requirements in these final regulations, rather than rely on standards contained in internal agency policy and guidance documents such as Department of the Interior Departmental Manual Part 411, in order to (1) promote consistency between the Departments, (2) eliminate subjectivity in approving repositories, and (3) provide sufficient information to repositories seeking to become approved under the Act and the final regulations.

Section 291.23—Response to comments

Comment: Requirements of approval of a repository. One respondent stated that the definition of a “good repository” was not clearly stated, and another respondent suggested that the focus of this section should be on fossil collections and that requirements should include a guarantee that the fossil collection be treated by the repository as a permanently accessible source of scientific data.
Response: The Department considers that the conditions as set forth in § 291.23 of the regulations offer clear and sufficient detail for characterization of a repository that may be approved to house paleontological collections from National Forest System lands. The repository requirements set forth in these regulations reflect a focus on the paleontological collections and have been developed to ensure the long-term integrity of collections maintained in repositories. A focus on collections as permanently accessible sources of scientific data is reflected in the provisions of §§ 291.22(a)(iii) and 291.24(a) of these regulations.

Comment: Requirement for repository staff expertise in paleontology is burdensome. A respondent suggested a requirement for staff expertise in paleontology may be burdensome for small repository institutions

Response: The language in § 291.23(d) of the regulations has been modified to reflect that the level of repository staff expertise in paleontology be appropriate to the nature and use of the paleontological collections maintained by that repository.

Comment: Approval of a repository. Respondents expressed the view that clarification should be provided concerning whether or not approval of a repository is a one-time process, or if an approval is required for every permit or collection considered for deposit. Respondents also expressed the view that decisions by the Forest Service regarding repository approval be timely.

Response: Following approval of a repository, the repository is considered to remain approved unless a change in the conditions related to approval warrant reevaluation. A repository approval and related repository agreement will generally require exchanges of information between the Forest Service and the repository
institution; the Forest Service is committed to making repository approvals as timely as practicable.

Section 291.24 Standards for access and use of collections

Section 291.24 of these final regulations provides repositories with consistent standards for access to and use of Federal collections in accordance with 16 U.S.C. 470aaa-3(c)(2), which states that paleontological resources will be preserved for the public in approved repositories and be made available for scientific research and public education. This section also addresses loans and reproductions, which increase the use and accessibility of paleontological resources consistent with professional and educational practices.

Section 291.24(f) clarifies when repositories must obtain approval from the Authorized Officer before allowing certain uses that may subject the specimens to damage. These uses include certain types of reproductions and consumptive analysis of specimens. Reproductions include molding and casting, and computerized axial tomography (CAT) scans. Routine photographic and/or digital reproductions would generally not require individual approvals, providing the reproductions are not made for commercial purposes, and that the reproductions do not require transfer of the specimen(s) to a different facility. Reproductions help expand use and accessibility of collections for exhibition, research, education, and interpretation. Producing a mold and then a cast of a specimen will allow an exact duplicate upon which research and exhibition can take place without further damaging the original specimen. Section 291.24(f)(2) clarifies that the approved repository may only allow consumptive analysis of specimens if the Authorized Officer, in consultation with an Agency paleontologist,
has determined that the potential gain in scientific or interpretive information outweighs the potential loss of the paleontological resource. Consumptive analysis would generally be limited to specimens that are not unique or fragile, or to a sample of specimens drawn from a larger collection of similar specimens.

Section 291.24—Response to comments

Comment: Repository standards add unnecessary bureaucracy and are inconsistent with standard museum collection management practices. Respondents expressed the view that requirements related to repositories add unnecessarily to bureaucracy, are time-consuming to address, and are inconsistent with standard museum collection management practices. Respondents suggested that the Forest Service should collaborate with repositories and/or other professional organizations with a focus on museum collections management issues in drafting regulatory requirements pertinent to collections management. Respondents expressed the view that umbrella repository agreements be developed that clearly state the respective roles and responsibilities of the Forest Service and the repository, and that state how the costs associated with collections management are calculated and allocated.

Response: The Department considers that collections management requirements set forth in the regulations largely reflect collections management policies and procedures that are routinely employed by professionally managed repository institutions. Repository requirements were developed by a team of interagency specialists including those familiar with repository operations. In accordance with the Administrative Procedure Act, the solicitation of public comments on these final regulations is the established procedure for members of the public to provide comments concerning
collections management for Department and Agency specialists to further consider prior to promulgation of the final regulations. The Department agrees that repository agreements could address costs associated with collections management, and nothing in these regulations would prevent repository agreements from addressing such costs.

Comment: Distinguishing responsibilities of repository and permit holder. Two respondents expressed the view that § 291.24 does not effectively distinguish between the respective responsibilities of the repository and the permit holder, who may not be affiliated with the repository. Respondents specifically note that repositories cannot be held responsible for collections which have not yet been deposited by permit holders.

Response: Section 291.16(f) of the regulations states that the permit holder is responsible for all work conducted under the permit; this should be understood to mean permitted work prior to depositing collected specimens in a repository institution. The regulations do not state that a repository is responsible for collected specimens prior to transfer of those specimens by the permit holder to the repository. A repository would not be considered responsible for collected specimens until after such specimens have been accessioned into the repository’s collections.

Comment: Decision-making by approved repository. Respondents expressed the view that § 291.24 of these final regulations contains provisions that are not addressed in the Act and which place undue administrative burdens on repository institutions. Respondents also suggest that approval of a repository institution in accordance with §§ 291.22 and 291.23 demonstrates the responsible stewardship of that institution. Consequently, the qualified repository professional staff should have the authority to make decisions concerning reproductions and consumptive analyses based on
institutional policies and professional standards, without requiring written approval from the Authorized Officer.

Response: Regulations may impose conditions that are considered necessary to implement provisions of the Act, even if such provisions were not explicitly specified in the Act. The Department considers that the repository conditions set forth in § 291.24 of the regulations are industry-standard best management practices already employed by most professionally-managed repository institutions. Forest Service specimens in repository collections remain Federal property, for which the Forest Service Authorized Officer is held ultimately accountable. The level of decision-making authority deferred to the repository in administering Forest Service paleontological specimens will be established in a repository agreement, and will reflect the degree of responsible stewardship demonstrated by the repository institution.

Comment: Role of private institutions. One respondent suggested that clarification should be provided regarding the role of private institutions or companies with respect to standards for access and use of collections.

Response: These regulations do not distinguish between roles that may be played by public or private institutions with respect to standards for access and use of collections. Standards in the regulations apply equally to all institutions.

Comment: Providing access to specific locality data. Respondents expressed the view that clarification should be provided concerning how to administer requests by users for specific locality information, and expressed concern that separating locality data from specimens to ensure confidentiality is bad practice and reduces scientific usefulness of specimens.
Response: The Department does not consider that maintaining confidentiality of specific locations requires separation of specific locality information from specimens in repository collections. The repository institution is responsible for maintaining an appropriate level of confidentiality of specific locations of specimens. These regulations do not stipulate specific collections-based practices or procedures to ensure confidentiality; rather, the employment of specific practices or procedures as appropriate to maintain confidentiality is at the discretion of the repository institution.

Comment: Administration of confidentiality agreement. Respondents suggested that clarification should be provided regarding whether the Forest Service or the repository would administer confidentiality agreements, and suggested that repositories be explicitly allowed to share locality information with holders of Forest Service permits for mitigation projects.

Response: The Department considers that administration of confidentiality provisions is a shared responsibility of the Forest Service and the repository, and that administrative details would be addressed in a repository agreement. Institutional responsibilities in communicating confidential location information would be addressed in the repository agreement. The Department considers that entities with a demonstrated legitimate need to obtain confidential location information would generally be granted access to such information, and that consultation between the Forest Service and the repository should resolve any issues that may arise.

Comment: Responsibility for loaned specimens. Respondents expressed the view that clarification should be provided regarding whether a repository may require a borrowing institution to provide insurance for loaned specimens. Respondents expressed
the view that the repository of origin cannot be held responsible for loaned specimens, and that the borrowing institution must be responsible for loaned specimens during the loan period.

Response: A requirement to insure loaned specimens is a matter to be decided between the institutions that are parties to a loan, in accordance with the loan policies of the institutions. The Department considers that the parent repository for Federal paleontological specimens bears responsibility for the stewardship of those specimens, even if they have been loaned to another institution.

Comment: Records of collections use. Respondents suggest that tracking the use of Department collections separately from other collections will be burdensome, and that repositories should not be required to track collections uses apart from common practices in documenting loans, exhibition usage, and requiring citation in scientific research publications.

Response: The regulations do require tracking the scientific and educational uses of collections from National Forest System lands, but they do not require them to be tracked separately from other repository collections. The Department considers that tracking of collections use is an industry standard procedure for professionally-managed repository institutions, and that the ability to document such uses of Department specimens and/or collections would be a subset of more comprehensive collections management practices already employed by repositories.

Comment: Repository fees. Respondents suggested that clarification should be provided regarding whether repositories may charge fees to permit holders for the
curation of deposited collections, and whether the Forest Service would provide financial support for curation of collections obtained under permit.

Response: The issue of charging fees to permit holders for the curation of collections from National Forest System lands is a matter to be decided between the permit holder and the repository institution. The issue of Forest Service assistance provided for curation of collections would be addressed in a repository agreement; generally, the Department can not commit to or guarantee financial support for collections.

Comment: Written approval for reproduction. Respondents expressed the view that the requirement for written approval from the Authorized Officer for reproductions is burdensome, because the listed types of reproductions are routine practices, are non-destructive, and pose little physical risk to specimens. Respondents further suggested that decisions regarding making reproductions are more appropriately made by qualified repository professional staff with first-hand knowledge of specimen condition, rather than by the Authorized Officer who may not possess the expertise required to evaluate requests for reproductions based on their scientific merit. One respondent suggested that the Authorized Officer be required to consult a professional paleontologist regarding approvals for reproductions, and another respondent suggested that approvals should not be withheld by the Authorized Officer for non-scientific reasons.

Response: Particulars concerning the need for written approvals from the Authorized Officer for a repository to make reproductions would be addressed in a repository agreement. Routine photographic and/or digital reproductions would generally not require individual approvals, providing the reproductions are not performed for
commercial purposes and do not require transfer of the specimen(s) to a different facility.

The rule language has been clarified to reflect this. Generally, methods of reproduction that would require extensive physical manipulation of a specimen, transfer of a specimen to a different facility and/or that could reasonably be considered to pose risk of damage to a specimen would require approval. The rule language has been clarified to reflect that required approvals from the Authorized Officer would be issued in consultation with an Agency paleontologist. The Department does not expect that approvals for reproductions would be withheld for reasons unrelated to risk of potential specimen damage.

*Comment: Reproductions governed by established practices and procedures.*

Respondents expressed the view that repository institutions generally have established practices and procedures governing reproductions, that requiring written approval from the Authorized Officer for reproductions results only in increased procedural burden, and that the requirement for written approval should be waived for institutions that have established practices and procedures governing reproductions. Another respondent suggested that requests for reproductions are often made by visiting researchers, and that it would be impractical to respond to such requests during the time of the visit.

Respondents expressed the view that specimen reproductions are valuable in research, education, and exhibition, and that the burden of requesting written approval for reproductions would impede making reproductions and would consequently hinder their use in research, education, and exhibition.

*Response:* Particulars concerning the need for written approvals from the Authorized Officer for a repository to make reproductions would be addressed in a repository agreement. A repository agreement may or may not recognize that established
repository practices and procedures are sufficient to guide decisions concerning reproductions. Researchers should be aware of the potential need for written approval for non-routine reproductions, and requests for such approvals should be made in advance of research visits in order to ensure sufficient time to evaluate the request prior to visits. Written approval protocols prior to performing procedures that pose risk of damage to a specimen from National Forest System lands would not generally differ from such protocols that would be employed if the specimen were privately owned and on loan to a repository. The Department agrees that reproductions are valuable in research, education, and exhibition, and does not consider that requiring approvals in certain cases prior to making reproductions would substantially hinder the making, or use of reproductions.

Comment: Presumptive approval of reproduction in repository agreement. One respondent suggested that reproduction of specimens should be presumptively approved in repository agreements, or alternatively, that repository agreements should set forth those conditions under which written approval for reproduction would be required. This would reduce the burden of requiring written approval for each instance of proposed specimen reproduction.

Response: Particulars concerning the need for written approvals from the Authorized Officer for a repository to make reproductions would be addressed in a repository agreement. A repository agreement may or may not recognize that established repository practices and procedures are sufficient to guide decisions concerning reproductions. In some cases, a separate written approval for each instance of proposed specimen reproduction might be necessary.
Comment: Appeal for denial of reproduction. One respondent questioned whether there is a process to appeal a denial by the Authorized Officer of approval for reproduction.

Response: The regulations do not establish a process for the appeal of a decision by the Authorized Officer to deny approval for reproduction.

Comment: 3-D rendering. One respondent expressed the view that clarification should be provided concerning the meaning of the phrase “three-dimensional [3-D] rendering.”

Response: The phrase “three-dimensional [3-D] rendering” has been removed to add clarity to the requirement for approval of reproductions.

Comment: Revenue from reproductions. One respondent suggested that specimen reproductions may be sold, and that funds obtained from such sales be used to defray the costs related to curation of collections. Another respondent suggested that proceeds from sales of reproductions be restricted to specified uses including emergency field collection of threatened paleontological collections on Federal lands, laboratory preparation of Federal collections, curation of Federal paleontological collections, care and storage of Federal paleontological collections, and any other purposes that are mutually agreed to by the parties in writing.

Response: The issue of using revenues generated from sales of reproductions to support curation of collections and other specified uses would be addressed in a repository agreement.

Comment: Consumptive analysis governed by established practices and procedures. Respondents expressed the view that repository institutions generally have
established practices and procedures governing consumptive analysis, and that the
requirement for written approval should be waived for institutions that have established
practices and procedures governing consumptive analysis. Respondents further
suggested that decisions regarding consumptive analyses are more appropriately made by
qualified repository professional staff with first-hand knowledge of specimen
significance, rather than by the Authorized Officer who may not possess the expertise
required to evaluate requests for consumptive analyses based on their scientific merit.
Respondents expressed the view that consumptive analyses provide scientific data
regarding geochemistry and microscopic structure of specimens that would be otherwise
unavailable, and that such data are necessary for isotope analyses and studies of growth
and development, ancient biomolecule recovery, and paleobiomechanics. Respondents
expressed the view that denial of approval by the Authorized Officer for consumptive
analysis would have a chilling effect on such research.

Response: Particulars concerning the need for written approvals from the
Authorized Officer for a repository to perform consumptive analyses would be addressed
in a repository agreement. A repository agreement may or may not recognize that
established repository practices and procedures are sufficient to guide decisions
concerning consumptive analyses. The Department agrees that consumptive analyses
provide scientific data that are difficult to obtain by other means. The Department
considers that most well-justified requests for approval to perform consumptive analyses
would be supported, and that denial of approval for cause would generally be infrequent
and not have an overall chilling effect on research.
Comment: Presumptive approval of consumptive analysis in repository agreement. One respondent suggested that consumptive analysis of specimens should be presumptively approved in repository agreements, or alternatively, that repository agreements should set forth those conditions under which written approval for consumptive analysis would be required. This would reduce the burden of requiring written approval for each instance of proposed consumptive analysis.

Response: Particulars concerning the need for written approvals from the Authorized Officer for a repository to perform consumptive analyses would be addressed in a repository agreement. A repository agreement may or may not recognize that established repository practices and procedures are sufficient to guide decisions concerning consumptive analyses.

Comment: Restrictions only apply to existing technologies. One respondent suggested that the proposed restrictions on consumptive analysis are overly detailed and only reflect existing technologies.

Response: The regulations do not specify technologies, existing or otherwise, with respect to consumptive analyses.

Comment: Consumptive analysis of common invertebrate and plant fossils. One respondent suggested that written approval should not be required for consumptive analysis of common invertebrate and plant fossils.

Response: Common invertebrate and plant paleontological resources that are collected under a permit are subject to the same requirements pertaining to consumptive analyses as are any other paleontological specimens collected under permit. Particulars concerning the need for written approvals from the Authorized Officer for a repository to
perform consumptive analyses on common invertebrate and plant paleontological resources would be addressed in a repository agreement.

**Comment: Consumptive analysis of unique specimens.** One respondent suggested that reference to specimens as unique should be clarified because every specimen can be considered unique.

**Response:** The term “unique specimen” as used herein refers to any specimen that possesses one or more attributes that offer singular scientific information that is not present in other known and otherwise similar specimens.

**Comment: General limitation of consumptive analysis.** One respondent suggested that, as employed in the Preamble discussion, the phrase “…consumptive analysis would generally be limited…” should be modified by replacing “generally” by “may” to help reduce instances of apparent arbitrary denials.

**Response:** The Department considers that the suggested change in wording results in a meaning that is largely equivalent to the original passage, so the original wording is retained. The Department considers that denials of approval for consumptive analyses would not be arbitrary, but rather would be for cause related to irreversible adverse effects of such analyses on specimens that are not commensurate with gain in scientific knowledge provided by such analyses.

**Section 291.25 Conducting inspections and inventories of collections**

Section 291.25 clarifies the responsibilities of the Authorized Officer and the repository for inspections and inventories of Federal paleontological collections as required by the Federal Property and Administrative Services Act (40 U.S.C. 541 et seq.) and its implementing regulations (41 CFR parts 101 and 102) and guidance which require
periodic inspections. The responsibilities of the repositories for the stewardship of Federal paleontological collections is clarified by citing these authorities in these final regulations. It is important for repositories to know that after a Federal paleontological collection is placed in an approved repository, the Authorized Officer still retains the ultimate responsibility to ensure that the collection is adequately accounted for and maintained on behalf of the Federal government.

Section 291.25—Response to Comments

Comment: Reference to Federal Property and Administrative Services Act. Respondents suggest that reference to the Federal Property and Administrative Services Act and its implementing regulations is not appropriate, because that act and implementing regulations concern Federal property, and are not specific to natural history collections in recognized repositories.

Response: Paleontological resources collected under permit from National Forest System lands remain Federal property as stated in the Act, and statutory and regulatory authorities pertaining to Federal property apply to such paleontological resources.

Comment: Inventories and inspections distinct from routine collections management and inventory processes. Respondents suggested that clarification should be provided regarding whether the required inventories and inspections would be separate from routine collections management and inventory processes carried out by repository institutions. Respondents also expressed the view that clarification should be provided regarding whether it is the responsibility of the institution or the Authorized Officer to perform the inventories and inspections, if they are required to be separate from such operations routinely performed by the institution.
Response: Inventories and inspections as specified in the regulations would not be required to be separate or distinct from routine collections management and inventory processes, providing that the requested information can be produced for collections from National Forest System lands. The party, or parties, responsible for conducting such inventories and/or inspections would be specified in a repository agreement.

Comment: Notification of request for inventory or inspection. Two respondents suggested that clarification should be provided concerning the process by which a repository would be notified of a request to perform an inspection or inventory.

Response: The method of notification of a request to perform an inspection and/or inventory would be specified in a repository agreement.

Comment: Cost of inventories and inspections. Respondents suggested that the cost associated with inventories and inspections is an unfunded mandate and does not benefit the repository institution. Respondents suggest that there is no clear distinction between whether the repository or the permit holder, who may not be affiliated with the repository, is responsible for costs associated with such inventories and inspections, and suggest that §§ 291.14(e) and 291.16(p) are inconsistent regarding whether the repository or the permit holder are responsible for bearing such costs.

Response: Inventories and/or inspections of collections from National Forest System lands would not necessarily differ from routine collections management processes that are already employed by professionally managed repository institutions. Consequently, such inventories and/or inspections would not necessarily result in expenses in excess of those already accrued by a repository that routinely employs such management processes. The Department does not distinguish between whether a permit
holder or a repository, or both, are responsible for costs associated with collections management processes, and either or both parties may assume funding responsibilities. The allocation of funding for collections management activities is a matter to be decided between the repository and permit holder, and should be determined prior to a repository agreeing to accept a collection. Language in § 291.16(p) has been modified to clarify that a permit holder, repository, or both may share responsibility for expenses related to collections management.

**Section 291.26 Repository agreements**

Section 291.26(a) clarifies that the Authorized Officer may, on behalf of the Agency, enter into agreements with approved repositories. Such agreements would define curation responsibilities of the approved repositories and promote consistency in collections management.

Section 291.26(b) specifies the terms and conditions that would be included in a repository agreement, as appropriate. These terms and conditions are consistent with those that are required for repository agreements for Federal archeological resource collections at 36 CFR part 79, but have been modified to be relevant for paleontological collections. It is important to include these terms and conditions in these final regulations to ensure consistency between the Departments, to provide adequate notice to current and potential repositories, and to provide standard treatment of paleontological resources originating from lands controlled or administered by the Agency.

Section 291.26(b)(8) protects the confidentiality of specific paleontological locality data in collections.
Section 291.26—Response to Comments

Comment: Distinguishing responsibilities of repository and permit holder. Two respondents expressed the view that § 291.26 does not effectively distinguish between the respective responsibilities of the repository and the permit holder, who may not be affiliated with the repository. Respondents specifically note that repositories cannot be held responsible for collections which have not yet been deposited by permit holders.

Response: Section 291.26 refers to repository agreements and does not reference permit holders. The regulations do not state that a repository is responsible for collected specimens prior to transfer of those specimens by the permit holder to the repository. A repository would not be considered responsible for collected specimens until after such specimens have been accessioned into the repository’s collections.

Comment: Shared responsibility and funding. Respondents suggest that a repository agreement should reflect a partnership between the Forest Service and the repository regarding preservation and care for collections, and that the agreement should contain provision for Forest Service funding to support the expense associated with managing and maintaining Federal collections. Respondents suggest that as currently written, the collections management provisions of the regulations require additional repository staff and resources and consequently place additional financial burdens on repositories that are not concomitant with benefit to science and would impede research on National Forest System lands. One respondent suggested that many repositories have traditionally provided such collections management services on a pro bono basis to the mutual benefit of the Forest Service and repository, and that the final regulation of such services is not necessary.
Response: The Department agrees that a repository agreement reflects a partnership between the Forest Service and a repository institution that ensures appropriate management of collections from National Forest System lands. However, the Forest Service can not commit to or guarantee financial support for collections management. The Department considers that collections management requirements set forth in the regulations largely reflect collections management policies and procedures that are routinely employed by professionally managed repository institutions. Consequently, such stipulations would not require additional repository staffing and/or resources and associated financial burden. The Department considers that collections management provisions that ensure appropriate management of collections from National Forest System lands will ensure future availability of those collection for research and educational uses that benefit science. Such collections management provisions would not necessarily result in expenses in excess of those already accrued by a repository that routinely employs such management practices. The Department recognizes that many repositories have traditionally provided curatorial services at no cost in the prior absence of regulations. The establishment of regulations reflecting collections management policies and procedures that are routinely employed by professionally managed repository institutions for the purpose of ensuring the longevity of collections from National Forest System lands should not jeopardize existing relationships between the Forest Service and repository institutions.

Comment: Repository agreement optional. One respondent suggested that repository agreements should be optional rather than required, and that such agreements should not result in unfair administrative burdens placed on the repository.
**Response:** The Authorized Officer is not required by these regulations or the Act to enter into an agreement with a repository. A repository agreement would formalize that a repository is considered approved by the Forest Service, and would establish standards of collections management that would ensure appropriate care and resulting longevity of collections from National Forest System lands. Such collections management standards would be largely consistent with such policies and procedures as are routinely employed by professionally managed repository institutions, and would not be expected to increase or place unfair administrative burdens on repositories.

**Comment:** Provision of publications burdensome. One respondent suggested that requirements for repositories to track publications resulting from collections use and to provide copies of such publications to the Forest Service are burdensome, and also questioned the source of funds required to perform these functions.

**Response:** The Department agrees that the proposed requirements for a repository to track and provide copies of publications by researchers that are not affiliated with the repository is burdensome. Such requirements have been removed from the regulations.

**Section 291.27 Prohibited acts**

Section 291.27(a) restates the prohibited acts contained in 16 U.S.C. 470aaa-5(a).

Section 291.27(b) implements the false labeling prohibition contained in 16 U.S.C. 470aaa-5 (b). The Authorized Officer would have discretion to consider whether false labeling was inadvertent in evaluating whether to seek penalties for instances of false labeling.
Section 291.27—Response to Comments

Comment: Prohibited Acts. A respondent suggested that enforcement of the regulations would cost millions of dollars not currently available, and another respondent expressed the view that the Agency should communicate the regulations widely to the collecting public, since the burden should not be on the public to be aware of the regulations or what constitutes civil and criminal violations.

Response: The suggestion that enforcement of the regulations will cost millions of dollars is conjectural. Given resource limitations, enforcement of any regulations is often prioritized and the Department anticipates that enforcement of these regulations will be encompassed within its existing enforcement program without expenditure of additional monetary resources. The Department agrees that communication of the regulations to the public is an important outreach effort. Publication in the Federal Register is one part of this outreach. However, ultimately it is the responsibility of the public to be aware of the rules and regulations pertaining to use of public lands.

Section 291.28 Civil penalty

Section 291.28 provides that a person who violates any prohibition contained in these final regulations or in a permit issued under these final regulations may be assessed a penalty by the Authorized Officer, after the person is given notice and opportunity for a hearing with respect to the violation. For purposes of these final regulations, each violation is considered a separate offense.

The civil penalty provisions in the final regulations were modeled after the civil penalty regulations promulgated pursuant to the Archaeological Resources Protection Act, 16 U.S.C. 470aa-mm.
Section 291.29 Amount of civil penalty

Section 291.29(a) sets forth the factors to be used by the Authorized Officer in determining the amount of the penalty, including the scientific or fair market value, whichever is greater, of the paleontological resource involved; the cost of response to and restoration and repair of the resource and the paleontological site involved; and other factors considered relevant by the Authorized Officer in the written response submitted under § 291.30. Section 291.29(b) also clarifies that repeated violations could result in the doubling of the penalties. Such doubling may occur only after a conviction or an otherwise proven violation. Section 291.29(c) provides that the amount of any penalty assessed under this Section for any one violation would not exceed an amount equal to double the cost of response to and restoration and repair of resources and paleontological site damage plus double the scientific or fair market value of resources destroyed or not recovered, in accordance with 16 U.S.C. 470aaa-6(a)(3) and (4). This paragraph is intended to ensure that response costs may be included in the determination of penalty amounts. Section 291.29(d) provides that scientific and fair market values and the cost of response to and restoration and repair of the resource and the paleontological site involved are to be determined as described under §§ 291.37, 291.38, and 291.39.

Section 291.29—Response to Comments

Comment: Maximum amount of civil penalty. One respondent suggested that since most violations would be expected to result in only minor disruptions to topsoil, the maximum amount of civil penalty be capped at $50 or an amount equal to the cost of response to and restoration and repair of resources and paleontological site damage plus the scientific or fair market value of resources destroyed or not recovered.
Response: The suggestion that most violations would result in only minor disruptions to topsoil is conjectural. The Act has established limitations to civil penalty amounts and factors to be considered in the determination of civil penalty amounts, and the final regulations conform to the provisions of the Act. A $50 cap is not consistent with provisions of the Act, and the Department reserves the right to impose non-trivial penalty amounts in order to recover costs associated with an enforcement action, including land surface and resource restoration, and also to deter future violations.

Comment: Fair market or commercial value. Two respondents raised potential concerns regarding the determination of fair market or commercial value of paleontological resources. One concern is that many paleontological resources may not have fair market or commercial value, and the other concern is that using fair market or commercial values in penalty assessment may convey the misleading perception that the Agency views paleontological resources as marketable commodities.

Response: The Department agrees that many paleontological resources may not have established fair market or commercial value. However, fair market or commercial value is only one tool in assessment of penalties associated with violations, and it should be considered where such values can be determined. The Department agrees that from the regulatory perspective, paleontological resources that originate from National Forest System lands are not marketable commodities, and should not be viewed as such. However, the Department has no jurisdiction over fossils that are collected from private lands which have been variously considered as marketable commodities, among other perspectives. In such cases where a fair market or commercial value is associated with
particular fossils, the Department believes that it is appropriate to consider such values in assessing penalties for violations which occur on National Forest System lands.

**Section 291.30 Civil Penalty Process**

Section 470aaa-6(a) of the Act requires that any person assessed a penalty under the Act be given notice and opportunity for a hearing with respect to the violation. Section 291.30 would describe the process by which a civil penalty notice of violation is served on the person or party believed to be subject to a civil penalty, and the deadline and options for the person or party served with the notice to respond. Section 291.30(a) describes the contents of the civil penalty notice of violation that would be served on the person believed to be subject to a civil penalty, including a statement of facts in regard to the violation, the legal citation of that part of the Act or regulations that was violated, the amount of the proposed penalty, and the notice of the right to a hearing or judicial relief of the final administrative decision. This paragraph requires delivery by certified mail (return receipt requested) of these documents, rather than personal delivery as allowed by other regulations, in order to simplify compliance with the timeline required by this section. Section 291.30(b) explains that the recipient of the notice of violation has 45 calendar days to respond in accordance with this section. Section 291.30(c) describes the procedures which the Authorized Officer would use to assess the final amount of the penalty. Section 291.30(d) describes the factors that the Authorized Officer may consider in offering to modify or remit a penalty. Section 291.30(e) explains that after the Authorized Officer has determined the final amount of the civil penalty, a written notice of the assessed amount would be served to the recipient of the notice of violation. The notice of assessment would be served by some type of verifiable delivery, such as by
certified mail, return receipt requested. Section 291.30(f) explains the procedures of how the recipient of a notice of violation or a notice of assessment would file for a hearing. A request for a hearing must be in writing, must include a copy of the notice, and must be sent by certified mail, return receipt requested. The request for a hearing must be filed within 45 calendar days of the mailing of the notice and failure to file a request within the timeframe would be considered a waiver of the right to a hearing. Section 291.30(g) explains what constitutes the final administrative decision of the civil penalty amount. Under a notice of violation, the final administrative decision is when the recipient agrees to the amount of the proposed civil penalty. Under a notice of assessment, when a recipient has not requested a hearing within the 45 calendar day timeframe, the amount of the civil penalty in the notice of assessment is the final administrative decision. Under a notice of assessment, when a recipient has filed a timely request for a hearing, the decision resulting from the hearing is the final administrative decision. Section 291.30(h) explains that the person who has been assessed a civil penalty has 45 calendar days after the final administrative decision is issued to make the payment unless a timely request was filed with the U.S. District Court as provided in § 291.32. Section 291.30(i) explains that assessment of a civil penalty under this section is not deemed a waiver of the right for the Federal government to pursue other available legal or administrative remedies.

Section 291.30—Response to Comments

Comment: Civil penalty process and penalty relief. One respondent felt that individuals being assessed civil penalties should not be afforded penalty relief by providing information that would assist in the detection, prevention, or prosecution of violations.
Response: Paleontological resource theft or destruction, or both, has been documented to occur on National Forest System lands. However, due to the often vast and isolated nature of National Forest System lands and limited Forest Service staff field presence, it is difficult for Forest Service staff to detect and respond to such illegal activities at the time that they occur. Consequently, standard law enforcement tools such as penalty relief serve as important and necessary incentives for the public to report knowledge of such illegal activities that may otherwise be undetected by Forest Service staff.

Section 291.31 Civil penalties hearing procedures

Title 16 U.S.C. 470aaa-6(c) requires that hearings for civil penalty proceedings be conducted in accordance with 5 U.S.C. 554 of the Administrative Procedures Act (APA). Section 291.31 describes the procedures by which civil penalty hearings shall be conducted.

Section 291.31(a) explains that the recipient of a notice of violation or assessment may file a written request for a hearing in the office specified in the notice. The recipient would need to enclose a copy of the notice with the request. The person requesting a hearing would be able to state their preference as to the place and date for a hearing, but any such requested locations must be situated within the United States and be reasonable to be considered. In all cases, the Agency will retain discretion to decide the location of the hearing. Section 291.31(b) explains that upon receipt of the request for a hearing, the hearing office would assign an administrative law judge. Notification of the assignment of the judge would be given to all the parties involved, and from then on, all documentation for the proceedings must be filed with the administrative law judge and copies sent to the other party. Section 291.31(c) contains the procedures for appearances
and practice before the administrative law judge. This paragraph addresses the appearance by the respondent, that is, the recipient of the notice who has filed for a hearing, either in person, by representative, or by legal counsel. If the respondent or their representative fails to appear, the administrative law judge would determine if the failure to appear is without good cause. A failure to appear without good cause would be considered a waiver of the respondent’s right to a hearing and the respondent’s consent to the decision made at the hearing by the administrative law judge. Section 291.31(d) provides the details of the administration and the outcome of the hearing. This paragraph declares that the administrative law judge has the authority of law to preside over the parties and the proceeding and to make decisions in accordance with the APA. This paragraph explains what constitutes the final record for the proceedings and for the decision made by the administrative law judge for the final assessment of the civil penalty, declares that the administrative law judge’s decision is the final administrative decision of the Agency, and is effective 30 calendar days after the date of the decision.

Section 291.32 Petition for judicial review; collection of unpaid assessments

Title 16 U.S.C. 470aaa-6(b)(1) provides for petitions to the U.S. District Court for judicial review of decisions of a final assessment of civil penalties. Section 291.32(a) provides notice to the public about this right by restating the Act’s provisions regarding judicial review of the final Agency decision assessing a penalty under §§ 291.28 through 291.31, and describe the court’s standard of review of the final Agency decision. The respondent would have 30 calendar days from the date the Agency decision was issued to file the petition. Section 291.32(b) clarifies the provisions in 16 U.S.C. 470aaa-6(b)(2) that address the failure to pay a penalty assessed under §§ 291.28 through 291.31.
Failure to pay an assessed penalty within 30 calendar days of the issuance of the final Agency decision would be considered a debt to the U.S. Government; the Secretary would be authorized to request the Attorney General to institute a civil action to collect the penalty, and the court would prohibit review of the validity, amount, and appropriateness of such penalty. If the Secretary does not institute a civil action, the Agency would be able to recover the assessed penalties by using other available collection methods such as Treasury offset.

Section 291.33 Use of recovered amounts

Section 291.33 implements the authority conveyed in 16 U.S.C. 470aaa-6(d) for the Agency to use collected penalties or restitution for certain purposes without further authorization or appropriations. This final regulation allows the Authorized Officer to use collected penalties or restitution without further appropriation to protect, restore, or repair the paleontological resources and sites that were the subject of the action, and to protect, monitor, and study the resources and sites, and/or provide educational materials to the public about paleontological resources and sites, and/or provide for the payment of rewards. These categories are not listed in priority order.

Section 291.33—Response to Comments

Comment: Use of penalty fees for research. One respondent suggested that collected penalties be used to support paleontological research.

Response: The Act states that collected civil penalties may only be used to protect, restore, or repair, or to protect, monitor, and study sites which were the subject of the action; or to provide educational materials to the public about paleontological resources and sites; or to provide payment of rewards. These final regulations conform to
the Act regarding use of recovered amounts, and so the use of collected penalties to support paleontological research is already allowed, subject to the limitation that such research be performed on sites that are the focus of enforcement action.

**Section 291.34 Criminal penalties**

Paragraph 291.34(a) restates the penalties provided for by 16 U.S.C. 470aaa-5(c). This section does not preclude the Forest Service from using other laws or regulations in addition to or in lieu of the Act as the basis for charging violators. Violations of the prohibitions in the Act and in the regulations would be subject to criminal as well as civil penalties.

Section 291.34(b) clarifies that the determination of the values and the cost of response, restoration, and repair would be determined in accordance with §§ 291.37, 291.38, and 291.39.

**Section 291.35 Multiple offenses**

Section 291.35 restates the penalties for multiple offenses provided for by 16 U.S.C. 470aaa-5(d). This section clarifies that in the case of a second or subsequent violation by the same person, the amount of the penalty assessed may be doubled. Such doubling may occur only after a conviction or an otherwise proven violation.

**Section 291.35—Response to Comments**

*Comment: Multiple offenses.* One respondent suggested that assessed penalty amounts increase proportionately with number of violations by the same person.

*Response:* The Act states that in the case of second or subsequent violations by the same person, the amount of the penalty assessed may be doubled. The Act does not
make provision for proportionate penalties in cases of multiple offenses by the same person, and the final regulations are consistent with the Act.

**Section 291.36 General exception**

Section 291.36 restates the exemption of 16 U.S.C. 470aaa-5(e) for any person with respect to any paleontological resource which was in the lawful possession of such person prior to the date of enactment of the Act.

**Section 291.37 Scientific or paleontological value**

Section 291.37 specifies the factors and costs that may be considered in determining the scientific value of a paleontological resource, and clarifies that the terms *scientific value* as used in 16 U.S.C. 470aaa-6(a)(2) and *paleontological value* as used in 16 U.S.C. 470aaa-5(c) are the same value and are interchangeable for the purposes of these final regulations. Costs such as the preparation of a research design would be based on what it would have cost, prior to the violation, to conduct this research appropriately and in a way that would preserve the scientific and educational value of the paleontological resource. The calculation of this value using these types of costs would be the best method to reflect the loss of contextual information related to the locality, stratigraphy and geology of the paleontological resource while it was still *in-situ*.

**Section 291.37—Response to Comments**

*Comment: Include “locality” in preamble discussion of scientific or paleontological value.* One respondent expressed the view that the word locality should be inserted in the preamble discussion of scientific or paleontological value, as follows: “The calculation of this value using these types of costs would be the best method to
reflect the loss of contextual information related to the *locality*, stratigraphy, and geology of the paleontological resource while it was still *in-situ."

*Response:* The Department agrees that the suggested addition provides clarification regarding the nature of lost contextual information, and has added the word “locality” as proposed to the preamble discussion.

**Section 291.38 Fair market or commercial value**

Section 291.38 specifies the factors and costs to be included in determining the fair market value of a paleontological resource, and would clarify that the terms *fair market value* as used in 16 U.S.C. 470aaa-6(a)(2) and *commercial value* as used in 16 U.S.C. 470aaa-5(c) are the same value and are interchangeable for the purposes of these final regulations. Fair market value of paleontological resources would be established through the standard professional methods of using comparable sales information, advertisements for comparable resources, appraisals, pricing of comparable resources, and/or other information, regardless of whether or not such information, advertisements, appraisals, or pricing would be from legal or illegal markets. For example, the information, advertisements, appraisals or pricing that would be used to establish fair market value could come from paleontological resources excavated legally or illegally from State, private, non-Federal lands, or from paleontological resources excavated illegally from Federal lands. In cases where there would be no comparable fair market value, the value of the paleontological resources would be determined by scientific value or the cost of response, restoration, and repair.


Section 291.38—Response to Comments

Comment: Fair market or commercial value. One respondent suggested that in the second sentence of § 291.38 as discussed in the Preamble, the first "or" should be replaced with "and/or" to read: "… pricing of comparable resources, and/or other information, ...”

Response: The Department agrees that the proposed change adds clarification and has incorporated that change in the Preamble and the Final Rule.

Section 291.39 Cost of Response, restoration and repair

Section 291.39 clarifies that, for purposes of these regulations, the cost of response, restoration, and repair of paleontological resources involved in a violation would be the sum of the costs incurred for response, investigation, assessment, emergency restoration or repair work, plus those costs projected to be necessary to complete restoration and repair.

Section 291.39—Response to Comments

Comment: Cost of Response, Restoration, and Repair. One respondent suggested that in the first sentence of § 291.39, The word "plus" should be replaced with "and" to read: “… be the sum of the costs incurred for response, investigation, assessment, emergency restoration or repair work, and those costs projected to be necessary to complete restoration…”.

Response: The Department considers that the proposed change is equivalent in meaning to the original language, and has elected to retain the original language.
**Section 291.40 Rewards**

Section 291.40 provides that rewards would be determined and paid at the discretion of the Authorized Officer (see 16 U.S.C. 470aaa-7(a)). This section does not preclude agencies using other authorities and fund sources such as State funds to offer rewards for information that may lead to a conviction or finding.

**Section 291.40—Response to Comments**

*Comment: Rewards.* One respondent felt that rewards from penalties collected should not be offered to individuals furnishing information leading to finding of civil violation or criminal conviction.

*Response:* Paleontological resource theft or destruction, or both, has been documented to occur on National Forest System lands. However, due to the often vast and isolated nature of National Forest System lands and limited Forest Service staff field presence, it is difficult for Forest Service staff to detect and respond to such illegal activities at the time that they occur. Consequently, standard law enforcement tools such as rewards serve as important and necessary incentives for the public to report knowledge of such illegal activities. Moreover, the Act stipulates that rewards as described in these regulations be made available.

**Section 291.41 Forfeiture**

Section 470aaa-7(b) of the Act provides for the forfeiture of paleontological resources for violations under 16 U.S.C. 470aaa-5 or aaa-6. However, the Act did not provide the procedures for conducting either the criminal or the civil forfeiture of these resources. Forfeiture regulations and proceedings are very complex; therefore, rather than developing new forfeiture regulations that are only applicable to paleontological
resources, this section proposes to use agreements with other agencies to conduct forfeiture proceedings as required by Civil Asset Forfeiture Reform Act (18 U.S.C. 983) or other applicable forfeiture statutes.

Section 291.41(a) explains that all paleontological resources found in possession of a person with respect to a violation of §§ 291.28 through 291.36 of these final regulations are subject to forfeiture proceedings in accordance with the Civil Asset Forfeiture Reform Act or other applicable forfeiture regulations. The Department is authorized to enter into cooperative agreements with other agencies that have forfeiture regulations in place for the initiation of forfeiture actions.

Section 291.41(b) explains that the Federal government holds seized resources until the case is adjudicated, and would provide for the transfer of administration of seized paleontological resources. However, before paleontological resources seized in a criminal or civil case can be transferred administratively, the proceedings under § 291.41(a) must be followed. Once the resources are deemed to be forfeited, their administration may be transferred to an institution in accordance with 16 U.S.C. 470aaa-7(c). Such transfer would not mean that the Federal government is transferring ownership; it would only be transferring administration of the resources.

Amendments to Title 36 Code of Federal Regulation Part 261--Prohibitions, Sections 261.2 (Definitions) and 261.9 (Property)

The definition of paleontological resource contained in § 261.2 would be removed because it is inconsistent with the term paleontological resource as defined in 16 U.S.C. 470aaa and in § 291.5 of these final regulations.
Section 261.9(i) would be removed because it is inconsistent with 16 U.S.C. 470aaa–5 and § 291.27(a)(3) of these final regulations, which prohibit the sale or purchase of paleontological resources from National Forest System lands.

**Regulatory Certifications**

*Regulatory Planning and Review*

This final rule has been reviewed under USDA procedures and Executive Order (E.O.) 12866 on regulatory planning and review. The Office of Management and Budget (OMB) has determined that this final rule is not significant for purposes of E.O. 12866. This final rule would not have an annual effect of $100 million or more on the economy, nor would it adversely affect productivity, competition, jobs, the environment, public health and safety, or State and local governments. This final rule would not interfere with any action taken or planned by another agency, nor would it raise new legal or policy issues. Finally, this final rule would not alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of beneficiaries of such programs. Accordingly, this final rule is not subject to OMB review under E.O. 12866.

*Proper Consideration of Small Entities*

The final rule has also been considered in light of Executive Order 13272 regarding proper consideration of small entities and the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), which amended the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). The final rule for Paleontological Resources Preservation will not have a significant economic impact on a substantial number of small entities as defined by E.O. 13272 and the SBREFA, based on the following considerations:
The final rule would not impose additional restrictions or permitting requirements, beyond what is already practiced or required under existing regulations, that would invalidate, modify, or adversely affect the ability to conduct current or future activities (for example, mining, timber harvesting, grazing, recreation) on National Forest System lands as permitted under applicable laws other than the Act. The final rule would prohibit collection of paleontological resources for commercial purposes; however, this prohibition is consistent with past and current Agency practices (as guided by broad provisions in the Organic Administration Act of 1897 and the American Antiquities Act of 1906) on National Forest System lands and is, therefore, not a new restriction. Special use authorization for commercial collection of paleontological resources is permitted under 36 CFR 261.9(i); however, the Agency is aware of only one special use permit in the past that involved sale of paleontological resources, and that permit was not renewed. The final rule includes removal of 36 CFR 261.9(i) as a conforming change necessitated by the Act, which does not allow the collection of paleontological resources for commercial purposes. Casual collection of paleontological resources, as defined in the Act, by customers of some special use permit holders (for example, outfitters and guides) is currently allowed under specific conditions, and the final rule would continue to allow this activity as long as the activity is consistent with the conditions for casual collection as set forth in the final rule. The final rule would encourage scientific and educational use of paleontological resources by preserving the resources, promoting public awareness, and allowing for casual collection, thereby helping to maintain opportunities for small non-profit organizations to benefit from continued access to these resources on National Forest System lands. These final
regulations provide for permitted collection of vertebrate and other paleontological resources not subject to the casual collection exemption, consistent with past Forest Service practices, thereby maintaining opportunities for organizations (for example, academic, paleontological resource assessment contractors) to collect paleontological resources for non-commercial research and paleontological resource assessment purposes.

It is not possible to specifically identify the population of small entities that may be involved with activities that may include casual collection of paleontological resources on NFS lands because there is no Forest Service special use code to track this activity.

The minimum requirements on small entities imposed by this final rule associated with authorization by permit to collect paleontological resources are necessary to protect the public interest and federal property, not administratively burdensome or costly to meet, and are within the capabilities of small entities to perform. The final rule would not materially alter the budgetary impact of entitlements, user fees, loan programs, or the rights and obligations of program participants. It does not compel the expenditure of $100 million or more by any State, local, or Tribal government, or anyone in the private sector. Under these circumstances, the Forest Service has determined that this action will not have a significant economic impact on a substantial number of small entities. Based on the evidence presented above, a regulatory flexibility analysis is not required for this rule.

Environmental Impact

The Forest Service has determined that this final rule falls under the categorical exclusion provided in Forest Service regulations on National Environmental Policy Act
procedures. Such procedures exclude from documentation in an environmental assessment or impact statement “rules, regulations, or policies to establish service wide administrative procedures, program processes, or instructions” 36 CFR 220.6(d)(2); 73 FR 43084 (July 24, 2008). This final rule outlines the programmatic implementation of the Act, and as such, has no direct effect on Forest Service decisions for land management activities.

Unfunded Mandates

Pursuant to Title II of the Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531-1538), which the President signed into law on March 22, 1995, the Forest Service has assessed the effects of this final rule on State, local, and Tribal governments and the private sector. This final rule would not compel the expenditure of $100 million or more by any State, local, or Tribal governments, or anyone in the private sector. Therefore, a statement under section 202 of that act is not required.

No Takings Implementations

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 12630. It has been determined that this rule would not pose the risk of a taking of constitutionally protected private property. It implements new regulations that would reflect the new statutory authority for managing, preserving, and protecting paleontological resources on National Forest System lands and that reflect prior policies, procedures, and practices for the collection and curation of paleontological resources on National Forest System lands.
Federalism

The Forest Service has considered this final rule under the requirements of Executive Order 13132, Federalism, and has determined that the final rule conforms with the federalism principles set out in this E.O. The final rule would not impose any compliance costs on the States other than those imposed by statute, and would not have substantial direct effects on the States, on the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government. The final rule would not apply to paleontological resources managed by States or local governments or State or local governmental entities. Therefore, the Forest Service has determined that no further assessment of federalism implications is necessary.

Civil Justice Reform

This final rule has been reviewed under Executive Order 12988, Civil Justice Reform. The Forest Service has not identified any State or local laws or regulations that are in conflict with this final rule or that would impede full implementation of this final rule. Nevertheless, in the event that such a conflict was to be identified, the proposed rule would preempt the State or local laws or regulations found to be in conflict. However, in that case, no retroactive effect would be given to this rule, and the Forest Service would not require the use of administrative proceedings before parties could file suit in court challenging its provisions.
Consultation and Coordination with Indian Tribal Governments

This final rule has been reviewed under Executive Order 13175 of November 6, 2000, Consultation and Coordination With Indian Tribal Governments. It has been determined that this final rule would not have Tribal implications as defined by E.O. 13175, and therefore, advance consultation with Tribes is not required. Nonetheless, Tribal consultation was initiated on March 7, 2011. Tribal consultation was accomplished through local and regional consultation processes in coordination with the Washington Office of the Forest Service. Input from three Tribes was received during the initial 120-day period, and Tribal comments were considered in preparing the proposed rule prior to Federal Register Notice on May 23, 2013 and formal solicitation of public comment. Consultation continued during the 60-day public comment period for the proposed rule. No additional comments from Tribes were received.

Energy Effects

This final rule has been reviewed under Executive Order 13211 of May 18, 2001, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. It has been determined that this final rule does not constitute a significant energy action as defined in the Executive Order.

Controlling Paperwork Burdens on the Public

In accordance with the Paperwork Reduction Act of 1995 [44 U.S.C. Chapter 35], the Forest Service requested approval of a new information collection. The proposed information collection was published at 77 FR 31298, May 25, 2012. The information collection was approved in January 2014, and has been incorporated into 0596-0082, Special Uses Administration.
Title: Paleontological Resources Preservation

OMB Number: 0596-0082

Expiration Date of Approval: 3 years from approval date

Type of Request: New information collection

Abstract: The purpose of the Paleontological Resources Preservation final rule is to establish regulations to implement a paleontological resources preservation program on National Forest System lands in which paleontological resources are managed and protected using scientific principles and expertise, in accordance with the Act. The Act at 16 U.S.C. 470aaa-3 and 4 authorizes the Secretary to issue permits for the collection of paleontological resources from public lands and enter into agreements with approved repositories. The information required by this final rule is necessary to issue permits, enter into agreements, and identify the repository institutions which house and curate paleontological resources that are collected under permit and which remain Federal property. The information requirements will be used to help the Forest Service in the following areas:

(1) To determine that the applicant is qualified and eligible to receive a permit under the final rule,

(2) To determine if a proposal to collect paleontological resources meets the qualifications established in the law and regulations,

(3) To evaluate the impacts of a proposal in order to comply with environmental laws,

(4) To describe and document the scientific and geological context from which paleontological resources were collected,
(5) To identify and inventory paleontological resources that have been collected, and

(6) To ensure that paleontological resources that have been collected, which remain Federal property, are properly curated in an approved repository.

Qualified applicants are the only entities eligible to be issued paleontological resource collection permits, and are, therefore, the only entities from which information will be collected.

The information would be collected from respondents in the form of a permit application, and a report on authorized activities following completion of the permitted project. Permit applications are anticipated to require an average of 5.5 hours to complete, and permit reports are anticipated to require an average of 13 hours to complete, based on a limited survey of current permit holders. The information collection required for a paleontological resource collection permit application and report of permitted activity under this final rule was submitted to OMB as a new collection.

*Estimated Number of Respondents*: 50

*Estimated Number of Responses Per Respondent*: 2

*Estimated Number of Total Annual Responses*: 100

*Estimated Total Annual Burden on Respondents*: 925 hours

*Comments*: Comments were invited on:

(1) Whether the final collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility;
(2) The accuracy of the Agency’s estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) Ways to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

List of Subjects

36 CFR Part 214

Appeals.

36 CFR Part 261

Law enforcement, National forests.

36 CFR Part 291

Casual collecting, Collection, Confidentiality, Curation, Education, Fair market value, Fossil, Geology, Museums, National forests, Natural resources, Paleontological resources, Paleontology, Penalties, Permits, Prohibited acts, Prohibitions, Public awareness, Public education, Public lands, Recreation, Recreation areas, Reporting and recordkeeping requirements, Repository, Research, Scientific value.

Therefore, for the reasons set forth in the preamble, the Forest Service amends chapter II of title 36 of the Code of Federal Regulations as follows:
PART 214—POSTDECISIONAL ADMINISTRATIVE REVIEW PROCESS FOR OCCUPANCY OR USE OF NATIONAL FOREST SYSTEM LANDS AND RESOURCES

1. The authority citation for part 214 continues to read as follows:


2. In § 214.4, add paragraph (e) to read as follows:

§ 214.4 Decisions that are appealable.

* * * * *

(e) Paleontological resources. An authorization or permit issued under the Paleontological Resources Preservation Act of 2009 and 36 CFR part 291 for collection of paleontological resources.

PART 261—PROHIBITIONS

3. The authority citation for part 261 is revised to read as follows:

Authority: 7 U.S.C. 1011(f); 16 U.S.C. 460l-6d, 472, 551, 620(f), 1133(c)--(d)(1), 1246(i).

§261.2 [Amended]

4. In § 261.2, remove the definition for Paleontological resource.

§261.9 [Amended]

5. In § 261.9, remove paragraph (i) and redesignate paragraph (j) as paragraph (i).

6. Add part 291 to read as follows:

PART 291 – PALEONTOLOGICAL RESOURCES PRESERVATION

Sec.

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291.4 Preservation of existing authorities.
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291.40 Rewards.
291.41 Forfeiture.


§ 291.1 Purpose.
(a) The regulations in this part implement provisions of the Paleontological Resources Preservation Act, 16 U.S.C. 470aaa through 16 U.S.C. 470aaa-11 (hereinafter referred to as the Act), which provides for the preservation, management, and protection of paleontological resources on National Forest System lands and encourages the scientific, educational and where appropriate, the casual collection of these resources. Paleontological resources are nonrenewable, and are an accessible and irreplaceable part of America’s natural heritage.

(b) The Secretary shall manage, protect, and preserve paleontological resources on National Forest System lands using scientific principles and expertise. These regulations provide for coordinated management of paleontological resources and encourage scientific and educational use by promoting public awareness, providing for collection under permit, setting curation standards, establishing civil and criminal penalties, clarifying that paleontological resources cannot be collected from National Forest System lands for commercial purposes, and by allowing the casual collection of some of these resources on certain lands and under specific conditions.

(c) To the extent possible, the Secretary of Agriculture and the Secretary of the Interior will coordinate in the implementation of the Act.

§ 291.2 Authorities.

The regulations in this part are promulgated pursuant to the Omnibus Public Lands Act, Title VI, subtitle D on Paleontological Resources Preservation, 16 U.S.C. 470aaa through 16 U.S.C. 470aaa-11, which requires the Secretary to issue such regulations as are appropriate to carry out the Act.

§ 291.3 Exceptions.

The regulations in this part do not:
(a) Invalidate, modify, or impose any additional restrictions or permitting requirements on any activities permitted at any time under the general mining laws, the mineral or geothermal leasing laws, laws providing for mineral materials disposal, or laws providing for the management or regulation of the activities authorized by the aforementioned laws including but not limited to the Federal Land Policy and Management Act (43 U.S.C. 1701-1784), the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201-1358), and the Organic Administration Act (16 U.S.C. 478, 482, 551);

(b) Invalidate, modify, or impose any additional restrictions or permitting requirements on any activities permitted at any time under existing laws and authorities relating to reclamation and multiple uses of National Forest System lands;

(c) Apply to Indian lands;

(d) Apply to any materials associated with an archaeological resource (site), as defined in 16 U.S.C. 470, or any cultural items defined in 16 U.S.C. 30001;

(e) Apply to, or require a permit for, casual collecting of a rock, mineral, or invertebrate or plant fossil that is not protected under the Act;

(f) Affect any land other than National Forest System lands, or affect the lawful recovery, collection, or sale of paleontological resources from land other than National Forest System lands; or

(g) Create any right, privilege, benefit, or entitlement for any person who is not an officer or employee of the United States acting in that capacity. No person who is not an officer or employee of the United States acting in that capacity shall have standing to
file any civil action in a court of the United States to enforce any provision or amendment made by this part.

§ 291.4 Preservation of existing authorities.

The regulations in this part do not alter or diminish the authority of the Forest Service under any other law to manage, preserve, and protect paleontological resources on National Forest System lands in addition to the protection provided under the Act or this part.

§ 291.5 Definitions.


*Associated records* means original records (or copies thereof) that document the efforts to locate, evaluate, record, study, preserve, or recover paleontological resources, including but not limited to paper and electronic documents such as:

1. *Primary records* relating to the identification, evaluation, documentation, study, preservation, context, or recovery of a paleontological resource, regardless of format;

2. *Public records* including, but not limited to, land status records, agency reports, publications, court documents, agreements; and

3. *Administrative records and reports* generated by the permitting process and pertaining to the survey, excavation, or other study of the resource.

*Authorized Officer* means the person or persons to whom authority has been delegated by the Secretary to take action under the Act.
Casual collecting means the collecting of a reasonable amount of common invertebrate and plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools, resulting in only negligible disturbance to the Earth's surface and other resources.

Collection means all paleontological resources resulting from excavation or removal from National Forest System lands as well as any associated records resulting from excavation or removal from National Forest System lands under a permit.

Common invertebrate and plant paleontological resources are invertebrate or plant fossils that are of ordinary occurrence and wide-spread distribution. Not all invertebrate and plant paleontological resources are common.

Consumptive analysis means the alteration, removal, or destruction of a paleontological specimen, or parts thereof, from a collection for scientific research.

Curatorial services and curation mean those activities pertinent to management and preservation of a collection over the long term according to professional museum and archival practices, including at a minimum:

(1) Accessioning, cataloging, labeling, and inventorying a collection;

(2) Identifying, evaluating, and documenting a collection;

(3) Storing and maintaining a collection using appropriate methods and containers, and under appropriate environmental conditions and physical security controls;

(4) Periodically inspecting a collection and taking such actions as may be necessary to preserve it;

(5) Providing access and facilities to study a collection;
(6) Handling, cleaning, sorting, and stabilizing a collection in such a manner as to preserve it; and

(7) Lending a collection, or parts thereof, for scientific, educational or preservation purposes.

*Federal land* means land controlled or administered by the Secretary except for Indian land as defined in 16 U.S.C. 470aaa.

*Fossil* means any fossilized remains, traces, or imprints of organisms, preserved in or on the Earth’s crust.

*Fossilized* means preserved by natural processes, including, but not limited to burial in accumulated sediments, preservation in ice or amber, or replacement by minerals, or alteration by chemical processes such as permineralization whereby minerals are deposited in the pore spaces of the hard parts of an organism’s remains, which may or may not alter the original organic content.

*Indian land* means land of Indian tribes, or Indian individuals, which are either held in trust by the United States or subject to a restriction against alienation imposed by the United States.

*National Forest System* lands means those lands in a nationally significant system of federally owned units of forest, range, and related lands consisting of national forests, purchase units, national grasslands, land utilization project areas, experimental forest areas, experimental range areas, designated experimental areas, other land areas, water areas, and interests in lands that are administered by the Forest Service, U.S. Department of Agriculture, or designated for administration through the Forest Service. As used
herein, the term “National Forest System lands” refers to Federal land controlled or administered by the Secretary of Agriculture.

*Negligible disturbance* means little or no change to the surface of the land and causing minimal or no effect on other resources. The Authorized Officer has discretion to determine what constitutes negligible disturbance.

*Non-commercial personal use* means uses other than for purchase, sale, financial gain, or research. Research, in the context of these regulations, is considered to be a structured activity undertaken by qualified individuals with the intent to obtain and disseminate information via publication in a peer-reviewed professional scientific journal or equivalent venue, which increases the body of knowledge available to a scientific community.

*Non-powered hand tools* mean small tools that do not use or are not operated by a motor, engine, or other power source. These tools are limited to small tools that can be easily carried by hand such as geologic hammers, trowels, or sieves, but not large tools such as full-sized shovels or pick axes.

*Paleontological locality, location, and site* mean a geographic area where a paleontological resource is found. Localities, locations, and sites may be relatively large or small.

*Paleontological resource* means any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest, and that provide information about the history of life on earth. The term does not include:
(1) Any materials associated with an archaeological resource (as defined in section 3(1) of the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470bb(1)); or

(2) Any cultural item (as defined in section 2 of the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001)).

*Paleontological site* is used interchangeably with paleontological locality or location, but is never intended to be synonymous with "archaeological site."

*Reasonable amount* means a maximum per calendar year of one-hundred pounds by weight, not to exceed twenty-five pounds per day.

*Repository* means a facility, such as a museum, paleontological research center, laboratory, or an educational or storage facility managed by a university, college, museum, other educational or scientific institution, or a Federal, State or local government agency that is capable of providing professional curatorial services on a long-term basis.

*Repository agreement* means a formal written agreement between the Authorized Officer and the repository official in which the parties agree on how the repository will provide curatorial services for collections.

*Repository official* means any officer, employee, or agent officially representing the repository that is providing curatorial services for a collection that is subject to this part.

*Secretary* means the Secretary of Agriculture with respect to National Forest System lands controlled or administered by the Secretary of Agriculture.
State means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, and any other territory or possession of the United States.

§ 291.6 Confidentiality of information – general.

(a) Information concerning the nature and specific location of a paleontological resource is exempt from disclosure under the Freedom of Information Act (FOIA) (5 U.S.C. 552), unless the Authorized Officer has made a written determination that disclosure would:

(1) Further the purposes of the Act and this part;

(2) Not create risk of harm to or theft or destruction of the resource or the site containing the resource; and

(3) Be in accordance with other applicable laws.

(b) Sharing protected information does not constitute a disclosure. The Authorized Officer may share information concerning the nature and specific location of a paleontological resource with non-Agency personnel for scientific, educational, or resource management purposes. A recipient of such information may be required to sign a confidentiality agreement in which the recipient agrees not to share the information with anyone not authorized to receive the information.

§ 291.7 Public awareness and education.

The Chief of the Forest Service will establish a program to increase public awareness about the significance of paleontological resources on National Forest System lands.

§ 291.8 Area closures.
(a) In order to protect paleontological or other resources or to provide for public safety, the Authorized Officer may restrict access to or close areas to the collection of paleontological resources.

(b) The regulations in this part do not preclude the use of other authorities that provide for area closures.

§ 291.9 Determination of paleontological resources.

(a) All paleontological resources on National Forest System lands will be managed, protected, and preserved in accordance with the regulations in this part unless the Authorized Officer determines that such resources are not paleontological resources in accordance with paragraph (b) of this section.

(b) Using scientific principles and expertise, the Authorized Officer may determine that certain paleontological resources do or do not meet the definition of “paleontological resource” as set forth in these regulations, and therefore, whether or not such resources are covered by the Act or this Part.

(c) Determinations as described in paragraph (b) of this section are subject to the following conditions:

(1) A recommendation for determination must be in writing and be prepared by a paleontologist with demonstrated subject matter expertise in the specific group of paleontological resources under consideration.

(2) An Agency paleontologist will review the basis for the determination and make a recommendation to the Authorized Officer concerning the determination.
(3) The Authorized Officer will make the final determination based upon the recommendation of an Agency paleontologist and will ensure that the basis for the determination is documented, and that the determination is made available to the public.

(4) Any determination made pursuant to this section will in no way affect the Authorized Officer’s obligations under the Act or other applicable laws or regulations to manage, protect, or preserve all paleontological resources.

(d) On National Forest System lands, the following are not paleontological resources for purposes of the Act or this part:

(1) Mineral resources, including coal, oil, natural gas, and other economic minerals that are subject to the existing mining and mineral laws;

(2) Petrified wood as defined at 30 U.S.C. 611 and managed under 36 CFR 228.62 unless determined under paragraph (b) of this section to be a paleontological resource;

(3) Geological units, including, but not limited to, limestones, diatomites, and chalk beds).

§ 291.10 Collecting.

A paleontological resource may only be collected from National Forest System lands in accordance with the casual collecting provisions in §§ 291.11 and 291.12, or in accordance with a permit issued by the Authorized Officer as identified in § 291.13.

§ 291.11 Casual collecting on National Forest System lands.

(a) Casual collecting is allowed without a permit on National Forest System lands where such collection is consistent with the laws governing the management of those
lands, the land management plans, and where the lands in question are not closed to casual collection.

(b) National Forest System lands are open to casual collection unless otherwise closed, as described in § 291.12.

(c) Research activities do not constitute casual collection, and therefore, research involving the collecting of common invertebrate and plant paleontological resources requires a permit.

(d) Using scientific principles and expertise, the Authorized Officer may determine that certain invertebrate and plant paleontological resources do or do not meet the definition of “common invertebrate and plant paleontological resources” as set forth in these regulations, and thus, whether such resources can be casually collected or must be collected under permit.

(e) Determinations as described above in paragraph (d) of this section are subject to the conditions as stated in § 291.9(c)(1) through (4).

(f) It is the responsibility of the collecting public to ensure that they are casually collecting in an area that is open to casual collection, and that the materials they collect are subject to casual collection.

(g) Paleontological resources collected on National Forest System lands, including common invertebrate and plant paleontological resources subject to casual collecting, cannot be sold. Sale of these paleontological resources is a violation of 16 U.S.C. 470aaa–5(a)(3) and § 291.27(a)(3) and may subject the violator to civil and criminal penalties.

§ 291.12 National Forest System lands closed to casual collection.
(a) Casual collecting is not allowed in:

(1) National Monuments within the National Forest System; and

(2) Other National Forest System lands closed to casual collecting in accordance with this Part, other statutes, executive orders, regulations, or land use plans.

(b) Existing closures of certain areas to casual collecting, authorized under separate authority, remain closed under these regulations.

§ 291.13 Permits.

(a) The Authorized Officer may issue a permit for the collection of a paleontological resource pursuant to an application if the Authorized Officer determines that:

(1) The applicant is qualified to carry out the permitted activity;

(2) The permitted activity is undertaken for the purpose of furthering paleontological knowledge;

(3) The permitted activity is consistent with any management plan applicable to the National Forest System lands concerned; and

(4) The proposed methods of collection will not threaten significant natural or cultural resources pursuant to 16 U.S.C. 470aaa–3(b)(4).

(5) Collected materials will not be sold or otherwise used for commercial purposes.

(b) Permits may be issued at the Authorized Officer’s discretion to applicants that provide a complete application, as provided in § 291.14, and meet qualification and eligibility requirements in § 291.15.

§ 291.14 Application process.
Applicants for permits must provide the following records and information to the Authorized Officer in support of an application.

(a) The name, titles, academic or professional affiliations, and business contact information of the applicant and all persons who would be named on the permit;

(b) The applicant’s current resume, curriculum vita, or other documents that support an applicant’s qualifications;

(c) A detailed scope of work or research plan for the proposed activity. This must include maps, field methods, associated records, estimated time and duration of field season, proposed field party size, and specific information regarding storage, stabilization, and curatorial arrangements for collected specimens and data;

(d) Information regarding previous or currently held Federal paleontological permits including the issuing agency, permit number, and name of the Authorized Officer;

(e) Identification of a proposed repository for collected specimens, including written verification that the proposed repository agrees to receive the collection of paleontological resources and associated records and acknowledges that all costs will be borne by the applicant and/or approved repository, unless otherwise addressed in a separate written document; and

(f) Other records or information identified by the Authorized Officer as necessary to support an application for a permit.

§ 291.15 Application qualifications and eligibility.

(a) Qualified applicant. The information submitted by applicants under § 291.14 must demonstrate qualifications for carrying out the proposed activities, as follows:
(1) The applicant has a graduate degree in paleontology or a related field of study with a major emphasis in paleontology from an accredited institution, or can demonstrate training and/or experience commensurate to the nature and scope of the proposed activities; and

(2) The applicant has experience in collecting, analyzing, summarizing, and reporting paleontological data and experience in planning, equipping, staffing, organizing, and supervising field crews on projects commensurate to the type, nature and scope of work proposed in the application; and

(3) The applicant meets any additional qualifications as may be required by the Authorized Officer that are considered necessary to undertake the proposed project in the context of the project location.

(b) Eligibility. The information submitted by applicants under § 291.14 must demonstrate that the proposed work is eligible for a permit in accordance with § 291.13(a)(2) through (4).

§ 291.16 Terms and conditions.

The collection of paleontological resources pursuant to a permit must be conducted in accordance with the following terms and conditions:

(a) All paleontological resources that are collected from National Forest System lands under permit will remain the property of the United States.

(b) The collection will be preserved in an approved repository to be made available for scientific research and public education.

(c) Specific locality data will not be released by the permittee or repository unless authorized in accordance with § 291.6.
(d) The permittee recognizes that the area within the scope of the permit may be subject to other authorized uses.

(e) The permittee must conform to all applicable Federal, State, and local laws.

(f) The permittee must assume responsibility for all work conducted under the permit and the actions of all persons conducting this work.

(g) The permit cannot be transferred.

(h) The permittee cannot modify the permit without the approval of the Authorized Officer.

(i) The permittee must comply with all timelines established in the permit, and must request modification of the permit if those timelines cannot be met.

(j) The permittee or other persons named on the permit must be on site at all times when field work is in progress and will have a copy of the signed permit on hand.

(k) The permittee will comply with any vehicle or access restrictions, safety or environmental restrictions, or local safety conditions or restrictions.

(l) The permittee will report suspected resource damage or theft of paleontological or other resources to the Authorized Officer in a timely manner after learning of such damage or theft.

(m) The permittee will acknowledge the Forest Service in any report, publication, paper, news article, film, television program, or other media resulting from the permittee’s work performed under the permit.

(n) The permittee will comply with the timeline established in the permit for providing a complete list to the Authorized Officer of specimens collected and the current location of the specimens.
(o) The permittee will provide scheduled reports to the Authorized Officer within the timeline established in the permit

(p) The permittee and/or approved repository will be responsible for all costs for the proposed activity, including fieldwork and collections maintenance, unless otherwise addressed in a separate written document.

(q) The permittee will comply with the permit terms and conditions established by the Authorized Officer, even in the event of permit expiration, suspension, or revocation.

(r) Additional stipulations, terms, and conditions as required by the Authorized Officer and/or the Agency may be appended.

§ 291.17 Permit reports.

Permit reports must contain the following information as appropriate:

(a) Permittee(s)' name, title, affiliation, and professional contact information;

(b) Permit number;

(c) Date of report;

(d) Project name, number, or reference;

(e) Description of project, methodology, or summary of research scope of work;

(f) Dates of field work;

(g) Name(s) of people who performed field work;

(h) Description of work performed or accomplished and a summary of results and discoveries;

(i) Summary of regional or local geology and/or paleontology including context, geography, stratigraphy, and geological unit;
(j) Identification of potential impacts to paleontological resources by proposed land use action;

(k) Mitigation recommendations to address potential paleontological resource impacts;

(l) Relevant literature citations;

(m) Relevant associated records, including anything that aids in explaining, clarifying, or understanding the findings;

(n) Listing of collected paleontological resources, including field numbers and field identifications that are referenced to specific localities;

(o) Repository name, identifying acronym, and address;

(p) Repository official name, title, and contact information;

(q) Approved repository accession and/or catalog number(s);

(r) Assigned locality numbers;

(s) Administrative area (State, county, ranger district, forest, and so forth);

(t) Map name, source, size, edition, projection, datum, and/or other mapping information;

(u) Geographic location, survey data, and/or related metadata;

(v) Paleontological taxa collected, observed, or in a repository;

(w) Resource identifications, condition, location, and quantity; and

(x) Recommendations or information for the approved repository regarding the condition or care of collected resources or associated records.

§ 291.18 Modification or cancellation of permits.
The Authorized Officer may modify a permit, consistent with applicable laws and policies, when:

(a) The Authorized Officer determines that there are management, administrative, or safety reasons to modify a permit; or
(b) A permittee requests a modification in writing.

§ 291.19 Suspension and revocation of permits.

(a) The Authorized Officer may suspend or revoke a permit issued under this section;
(1) For resource, safety or other management considerations; or
(2) When there is a violation of term or condition of a permit issued under this section.
(b) The permit shall be revoked if any person working under the authority of the permit is convicted of a violation under section 16 U.S.C. 470aaa 6306 or is assessed a civil penalty under 16 U.S.C. 470aaa 6307.
(c) Suspensions, modifications, and revocations shall be administered in accordance with the procedures set forth in 36 CFR part 214.

§ 291.20 Appeals.

A permittee may appeal the denial or revocation of a permit in accordance with 36 CFR part 214. Pending the appeal, the decision of the Authorized Officer remains in effect unless determined otherwise in accordance with 36 CFR part 214, subpart C.

§ 291.21 Curation of paleontological resources.

Collections from National Forest System lands made under a permit issued according to this Part will be deposited in an approved repository. The curation of
paleontological resources collected from National Forest System lands before the effective date of these regulations is covered under the terms of the original collection permit and/or agreement. Such collections remain Federal property unless otherwise transferred or disposed of in a Forest Service agreement.

§ 291.22 Becoming an approved repository.

(a) A repository identified during the permit application process in § 291.14 must be approved to receive collections by the Authorized Officer as follows:

(1) A repository must meet the minimum requirements in § 291.23 in order to be approved.

(2) A repository must agree in writing that collections:

(i) Remain the property of the Federal government;

(ii) Will be preserved for the public in accordance with § 291.24;

(iii) Will be made available for scientific research and public education; and

(iv) That specific locality data will not be released except in accordance with § 291.6.

(b) The Authorized Officer and the repository official may enter into a formal agreement that explains the responsibilities of the parties for the curation of the collection in accordance with § 291.26.

(c) The repository must agree in writing to periodic inventory and inspection of the collections as described in § 291.25.

(d) Prior to depositing the collection, an Agency paleontologist in consultation with the repository official will determine the content of the collection to be curated.
based on scientific principles and expertise. A copy of the final catalog will be provided by the repository to the Authorized Officer.

(e) A repository approved by a Federal agency or bureau may be considered an approved repository by the Forest Service.

§ 291.23 Minimum requirements of approval of a repository.

The Authorized Officer will determine whether a facility should be an approved repository based on whether the repository has:

(a) The capability to provide adequate curatorial services as defined in § 291.5;
(b) A scope of collections statement or similar policy that identifies paleontological resources as part of its scope of collections;
(c) A current collections management plan, including but not limited to policies for documentation, loans, and access; and
(d) Staff with primary responsibility for managing and preserving the collections that have training or experience in the curation of paleontological resources at levels appropriate to the nature and use of the paleontological collections maintained by that repository.

§ 291.24 Standards for access and use of collections.

(a) The repository will make collections available for scientific research and public education or as otherwise provided in a repository agreement.

(b) The repository may provide access to specific locality data and associated records when consistent with an approval under § 291.22 or an agreement under § 291.26.
(c) The repository may loan specimens after entering into a signed loan agreement with the borrowing institution. The loan agreement must specify the terms and conditions of the loan and that the repository is responsible for care and maintenance of the loaned specimens.

(d) The repository must maintain administrative records of all scientific and educational uses of the collection.

(e) The repository may charge reasonable fees to cover costs for access to and use of collections, including handling, packing, shipping, and insuring paleontological resources, photocopying associated records and other occasional costs not associated with ongoing curatorial services.

(f) The following uses of the collection will require written approval from the Authorized Officer, in consultation with an Agency paleontologist, unless specified in the approval in § 291.22 or an agreement under § 291.26:

1. Prior to reproducing a paleontological resource, the repository will notify and obtain approval from the Authorized Officer. Reproductions include, but are not limited to, molding and casting, and computerized axial tomography (CAT) scans. Routine photographic and/or digital reproductions would not require individual approvals, providing the reproductions are not made for commercial purposes, and that the reproductions do not require transfer of the specimen(s) to a different facility.

2. The repository may only allow consumptive analysis of specimens if the Authorized Officer has determined, in consultation with an Agency paleontologist, that the potential gain in scientific or interpretive information outweighs the potential loss of
the paleontological resource and provides the repository with written authorization for such use.

§ 291.25 Conducting inspections and inventories of collections.

(a) The repository and the Authorized Officer must ensure that inspections and inventories of collections are in accordance with the Federal Property and Administrative Services Act (40 U.S.C. 541 et seq.), its implementing regulations (41 CFR parts 101 and 102), any Agency-specific regulations on the management of Federal property, and any Agency-specific statutes and regulations on the management of museum collections.

(b) The frequency and methods for conducting and documenting inspections and inventories will be appropriate to the nature and content of the collection.

(c) When two or more Federal agencies deposit collections in the same repository, they may enter into an interagency agreement consistent with the Single Audit Act (31 U.S.C. 75) for inspections and inventories.

§ 291.26 Repository agreements.

(a) The Authorized Officer may enter into an agreement with Federal and non-Federal repositories regarding the curation of paleontological resources and their associated records.

(b) An agreement will contain the following, as appropriate, including but not limited to:

(1) A statement (updated as necessary) that identifies the collection or group of collections provided to the repository;

(2) A statement that identifies the Federal ownership and the Agency that administers the collection;
(3) A statement of work to be performed by the repository;

(4) A statement of the responsibilities of the Authorized Officer and the repository official for the long-term care of the collection;

(5) A statement that collections are available for scientific and educational uses consistent with § 291.22;

(6) Any special procedures and restrictions for curatorial services and collection management, including loans;

(7) Provisions for consumptive analyses of paleontological specimens;

(8) Any special procedures and/or restrictions on the disclosure of specific locality data;

(9) A statement that all proceeds derived from any use of the collections will be used for their support;

(10) A statement that all exhibits, publications, and studies of Federal specimens by repository staff and/or repository research affiliates will credit the Agency that administers the collection;

(11) Specification of the frequency and methods for periodic inventories;

(12) A statement that accession, catalog, and inventory information will be made available to the Authorized Officer or their staff

(13) A statement that no employee of the repository will sell or financially encumber the collection;

(14) A statement that, in the event the repository can no longer provide care for a collection under the terms of the agreement, the repository official will notify the Authorized Officer in writing;
(15) A statement that the terminating party is responsible for the transfer of collections to another approved repository, including costs;

(16) The term of the repository agreement and procedures for modification, cancellation, suspension, extension, and termination of the agreement; and

(17) Any additional terms and conditions as needed.

§ 291.27 Prohibited acts.

(a) A person may not:

(1) Excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage, or otherwise alter or deface any paleontological resources located on National Forest System lands unless such activity is conducted in accordance with the Act and this part;

(2) Exchange, transport, export, receive, or offer to exchange, transport, export, or receive any paleontological resource if the person knew or should have known such resource to have been excavated or removed from National Forest System lands in violation of any provisions, rule, regulation, law, ordinance, or permit in effect under Federal law, including the Act and this part; or

(3) Sell or purchase or offer to sell or purchase any paleontological resource if the person knew or should have known such resource to have been excavated, removed, sold, purchased, exchanged, transported, or received from National Forest System lands.

(b) A person may not make or submit any false record, account, or label for, or any false identification of, any paleontological resource excavated or removed from National Forest System lands.

§ 291.28 Civil penalty.
(a) A person who violates any prohibition contained in this Part or permit issued under this Part may be assessed a penalty by the Authorized Officer after the person is given notice and opportunity for a hearing with respect to the violation, as provided in §§ 291.30 and 291.31.

(b) Each violation is considered a separate offense.

§ 291.29 Amount of civil penalty.

(a) Determination of civil penalty amount. The amount of such penalty assessed under § 291.28 shall be determined by taking into account:

(1) The scientific or fair market value, whichever is greater, of the paleontological resource involved, as determined by the Authorized Officer, and

(2) The cost of response to and restoration and repair of the resource and the paleontological site involved, and

(3) Any other factors under §§ 291.37 through 291.39 considered relevant by the Authorized Officer in assessing the penalty.

(b) Multiple offenses. In the case of subsequent or repeated violations by the same person, the amount of a penalty assessed under § 291.28(a) may be doubled.

(c) Maximum amount of penalty. The amount of any penalty assessed for any one violation shall not exceed an amount equal to double the cost of response to, and restoration and repair of resources and paleontological site damage plus double the scientific or fair market value of resources destroyed or not recovered.

(d) Determination of scientific and fair market values and cost of response to, and restoration and repair. Scientific and fair market values and the cost of response to, and restoration and repair are determined as described in §§ 291.37 through 291.39.
§ 291.30 Civil penalty process.

(a) Notice of violation. The Authorized Officer shall serve a notice of violation by certified mail (return receipt requested) or other type of verifiable delivery upon any person believed to be subject to a civil penalty. The Authorized Officer shall include in the notice:

(1) A concise statement of the facts believed to show a violation;

(2) A specific reference to the section(s) of this part or to a permit issued pursuant to this part allegedly violated;

(3) The penalty proposed;

(4) Notification of the right to request a hearing in accordance with paragraph (f) of this section. The notice shall also inform the person of the right to seek judicial review of any final administrative decision assessing a civil penalty.

(b) Response to notice of violation. The person served with a notice of violation shall have 45 calendar days from the date of mailing in which to respond. During this time the person may:

(1) Accept the proposed penalty, either in writing or by payment. Acceptance of the proposed penalty will be deemed a waiver of the right to request a hearing as described in paragraph (f) in this section.

(2) Seek informal discussions with the Authorized Officer;

(3) File a written response. This written response must be filed with the Authorized Officer within 45 calendar days of the date of mailing of the notice of violation, and must be signed by the person served with the notice of violation. If the person is a corporation, the written response must be signed by an officer authorized to
sign such documents. The written response will set forth in full the legal or factual basis for the requested relief.

(4) Request a hearing in accordance with paragraph (f) of this section.

(c) Assessment of penalty. (1) The Authorized Officer shall assess a civil penalty upon completion of the 45 calendar day response period, informal discussions, or review of the written response, whichever is later.

(2) The Authorized Officer shall take into consideration all available information, including information provided under paragraph (b) of this section or furnished upon further request by the Authorized Officer.

(3) If the facts warrant a conclusion that no violation has occurred, the Authorized Officer shall notify the person served with the notice of violation that no violation has occurred and no penalty will be assessed.

(4) Where the facts warrant a conclusion that a violation has occurred, the Authorized Officer shall determine a penalty amount in accordance with § 291.29.

(d) Penalty modification and remittance. The Authorized Officer may offer to modify or remit the penalty. Modification or remittance may be based upon any or all of the following factors:

(1) Agreement by the person being assessed a civil penalty to return to the Authorized Officer paleontological resources removed from National Forest System lands;

(2) Agreement by the person being assessed a civil penalty to assist the Authorized Officer in activity to preserve, restore, or otherwise contribute to the protection and study of paleontological resources on National Forest System lands;
(3) Agreement by the person being assessed a civil penalty to provide information which will assist in the detection, prevention, or prosecution of violations of the Act or this part;

(4) Determination that the person being assessed a civil penalty did not willfully commit the violation;

(5) Determination of other mitigating circumstances appropriate to consideration in reaching a fair and expeditious assessment.

(e) Notice of assessment. The Authorized Officer shall serve a written notice of assessment upon the person served with a notice of violation. The notice of assessment establishes the penalty amount assessed by the Authorized Officer and is served by certified mail (return receipt requested), or other type of verifiable delivery. The Authorized Officer shall include in the notice of assessment:

(1) The facts and conclusions from which it was determined that a violation did occur;

(2) The basis for determining the penalty amount assessed and/or any offer to mitigate or remit the penalty; and

(3) Notification of the right to request a hearing, including the procedures to be followed, and to seek judicial review of any final administrative decision assessing a civil penalty.

(f) Hearings. (1) Except where the right to request a hearing is deemed to have been waived as provided in paragraph (b)(1) of this section, the person served with a notice of assessment may file a written request for a hearing with the hearing office specified in the notice. The person shall enclose with the request for hearing a copy of
the notice of assessment, and shall deliver the request for hearing by certified mail (return receipt requested), as specified in the notice of assessment.

(2) Failure to deliver a written request for a hearing within 45 calendar days of the date of mailing of the notice of assessment shall be deemed a waiver of the right to a hearing.

(3) Any hearing conducted pursuant to this section shall be held in accordance with 5 U.S.C. 554. In any such hearing, the amount of civil penalty assessed shall be determined in accordance with §§ 291.28 through 291.33, and shall not be limited by the amount assessed by the Authorized Officer under § 291.29(a) or any offer of mitigation or remission made by the Authorized Officer.

(g) Final administrative decision. (1) Where the person served with a notice of violation has accepted the penalty pursuant to paragraph (b)(1) of this section, the notice of violation shall constitute the final administrative decision;

(2) Where the person served with a notice of assessment has not requested a hearing within 45 calendar days of the date of mailing of the notice of assessment, the notice of assessment shall constitute the final administrative decision;

(3) Where the person served with a notice of assessment has filed a timely request for a hearing, the decision resulting from the hearing shall constitute the final administrative decision.

(h) Payment of penalty. The person assessed a civil penalty shall have 45 calendar days from the date of issuance of the final administrative decision in which to make full payment of the penalty assessed, unless a timely request for appeal has been filed with a U.S. District Court as provided in § 291.32.
(i) *Other remedies not waived.* Assessment of a penalty under this section shall not be deemed a waiver of the right to pursue other available legal or administrative remedies.

§ 291.31 Civil penalties hearing procedures.

(a) *Requests for hearings.* Any person wishing to request a hearing on a notice of assessment of civil penalty may file a written dated request for a hearing with the hearing office specified in the notice. The person shall enclose a copy of the notice of violation and the notice of assessment. The request shall state the relief sought, the basis for challenging the facts used for assessing the penalty, and the person’s preference as to the place and date for a hearing. A copy of the request shall be served upon the USDA Office of the General Counsel by certified mail, at the addresses specified in the notice of assessment. Hearings shall be conducted in accordance with 5 U.S.C. 554.

(b) *Commencement of hearing procedures.* Upon receipt of a request for a hearing, the hearing office shall assign an administrative law judge to the case. Notice of assignment shall be given promptly to the parties, and thereafter, all pleadings, papers, and other documents in the proceeding shall be filed directly with the administrative law judge, with copies served on the opposing party.

(c) *Appearance and practice.* (1) The respondent may appear in person, by representative, or by counsel, and may participate fully in the proceedings. If respondent fails to appear and the administrative law judge determines such failure is without good cause, the administrative law judge may, in his/her discretion, determine that such failure shall constitute a waiver of the right to a hearing and consent to the making of a decision on the record made at the hearing.
(2) Departmental counsel shall represent the Agency in the proceedings. Upon notice to the Authorized Officer of the assignment of an administrative law judge to the case, said counsel shall enter his/her appearance on behalf of the Agency and shall file all petitions and correspondence exchanges by the Agency and the respondent which shall become part of the hearing record. Thereafter, service upon the Agency shall be made to Departmental counsel.

(d) *Hearing administration.* (1) The administrative law judge shall have all powers accorded by law and necessary to preside over the parties and the proceedings and to make decisions in accordance with 5 U.S.C. 554 through 557.

(2) The transcript of testimony; the exhibits; and all papers, documents and requests filed in the proceedings shall constitute the record for decision. The administrative law judge shall render a written decision upon the record, which shall set forth his/her findings of fact and conclusions of law, and the reasons and basis therefore, and an assessment of a penalty, if any.

(3) The administrative law judge's decision shall become effective 30 calendar days from the date of this decision.

§ 291.32 Petition for judicial review; collection of unpaid assessments.

(a) *Judicial review.* Any person against whom a final administrative decision is issued assessing a penalty may file a petition for judicial review of the decision in the U. S. District Court for the District of Columbia or in the district in which the violation is alleged to have occurred within the 30 calendar day period beginning on the date the decision was issued. Upon notice of such filing, the Secretary shall promptly file such a certified copy of the record on which the decision was issued. The court shall hear the
action on the record made before the Secretary and shall sustain the action if it is supported by substantial evidence on the record considered as a whole. Judicial review is limited by the requirement to exhaust administrative remedies under 7 U.S.C. 6912(e).

(b) *Failure to pay.* Failure to pay a penalty assessed is a debt to the U.S. Government. If any person fails to pay a penalty within 30 calendar days after the final administrative decision and the person has not filed a petition for judicial review of the decision in accordance with paragraph (a) of this section; or after a court in an action brought in paragraph (a) of this section has entered a final judgment upholding the assessment of the penalty, the Secretary may request the Attorney General to institute a civil action in a district court of the United States for any district in which the person if found, resides, or transacts business, to collect the penalty (plus interest at currently prevailing rates from the date of the final decision or the date of the final judgment, as the case may be). The district court shall have jurisdiction to hear and decide any such action. In such action, the validity, amount, and appropriateness of such penalty shall not be subject to review. Any person who fails to pay on a timely basis the amount of an assessment of a civil penalty shall be required to pay, in addition to such amount and interest, attorney’s fees and costs for collection proceedings. This section does not preclude the use of other collection methods such as Treasury offset, where appropriate.

§ 291.33 Use of recovered amounts.

Penalties and/or restitution collected shall be available to the Authorized Officer and without further appropriation may be used only as follows:
(a) To protect, restore, or repair the paleontological resources and sites which were the subject of the action, and to protect, monitor, and study the resources and sites; and/or

(b) To provide educational materials to the public about paleontological resources, sites, and their protection; and/or

(c) To provide for the payment of rewards as provided in § 291.40.

§ 291.34 Criminal penalties.

(a) A person who knowingly violates or counsels, procures, solicits, or employs another person to violate § 291.27 shall, upon conviction, be fined in accordance with Title 18, United States Code, or imprisoned not more than 5 years, or both; but if the sum of the commercial and paleontological value of the paleontological resources involved and the cost of restoration and repair of such resources does not exceed $500, such person shall be fined in accordance with Title 18, United States Code, or imprisoned not more than 2 years, or both.

(b) Paleontological and commercial values and the cost of restoration and repair are determined under §§ 291.37 through 291.39.

§ 291.35 Multiple offenses.

In the case of subsequent or repeat violations by the same person, the amount of the monetary penalty assessed may be doubled.

§ 291.36 General exception.

The provisions in §§ 291.28 through 291.35 do not apply to any person with respect to any paleontological resource which was in the lawful possession of such person prior to the date of enactment of the Act.
§ 291.37 Scientific or paleontological value.

The scientific value of any paleontological resource involved in a violation of the prohibitions contained in this part or conditions of a permit issued pursuant to this Part shall be the value of the information associated with the paleontological resource. The term “scientific value” can be used interchangeably with the term “paleontological value.” This value shall be determined in terms of the costs of the retrieval of the scientific and educational information which would have been obtainable prior to the violation. These costs may include, but need not be limited to, the cost of preparing a research design, conducting field work, carrying out laboratory analysis, and preparing reports or educational materials or displays as would be necessary to realize the information potential.

§ 291.38 Fair market or commercial value.

The fair market value of any paleontological resource involved in a violation of the prohibitions contained in this part or conditions of a permit issued pursuant to this part shall be the commercial value of the resources, determined using the condition of the paleontological resource prior to the violation, to the extent that its prior condition can be ascertained. The term “fair market value” can be used interchangeably with the term “commercial value.” Fair market value of paleontological resources can be established through the use of comparable sales or pricing information, advertisements for comparable resources, appraisals, and/or other information on legal or illegal markets.

§ 291.39 Cost of response, restoration, and repair.

The cost of response, restoration, and repair of paleontological resources involved in a violation of prohibitions contained in this part or conditions of a permit issued
pursuant to this part, shall be the sum of the costs incurred for response, investigation, assessment, emergency restoration, or repair work, plus those costs projected to be necessary to complete restoration and repair, which may include but need not be limited to the costs of:

(a) Reconstruction of the paleontological resource;

(b) Stabilization and/or salvage of the paleontological resource;

(c) Ground contour reconstruction and surface stabilization;

(d) Research necessary to carry out reconstruction or stabilization;

(e) Physical barriers or other protective devices or signs, necessitated by the disturbance of the paleontological resource, to protect it from further disturbance;

(f) Examination and analysis of the paleontological resource including recording remaining paleontological information, where necessitated by disturbance, in order to salvage remaining values which cannot be otherwise conserved;

(g) Storage, preparation, and curation;

(h) Site monitoring; and

(i) Preparation of reports relating to any of the above activities.

§ 291.40 Rewards.

(a) The Authorized Officer may, at his or her discretion, pay from penalties collected under §§ 291.28 through 291.36, or from appropriated funds, an amount up to half of the penalties collected to any person who furnishes information which leads to a finding of the civil violation(s) or to the criminal conviction(s).

(b) If several persons provided the information, the amount may be divided at the discretion of the Authorized Officer among the persons.
(c) No officer or employee of the United States or of any State or local
government who furnishes information or renders service in the performance of their
official duties shall be eligible for payment.

§ 291.41 Forfeiture.

(a) Forfeiture. All paleontological resources with respect to which a violation
under §§ 291.28 through 291.36 occurred and which are in the possession of any person,
are subject to forfeiture proceedings. All forfeitures will be initiated pursuant to
cooperative agreements with agencies having law enforcement authority and forfeiture
regulations in place.

(b) Transfer of administration of forfeited resources. The administration of
forfeited resources may be transferred to Federal or non-Federal institutions to be used
for scientific or educational purposes, in furtherance of the purposes of the Act.

Dated: March 11, 2015.

Robert Bonnie,
Under Secretary,
Natural Resources and Environment.

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