

Sunshine Act Meetings

Federal Register

Vol. 56, No. 224

Wednesday, November 20, 1991

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

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

November 14, 1991.

TIME AND DATE: 10:00 a.m., Thursday, November 21, 1991.

PLACE: Room 600, 1730 K Street, N.W., Washington, D.C.

STATUS: Open.

MATTERS TO BE CONSIDERED: The Commission will consider and act upon the following:

1. *Explosives Technologies International, Inc.*, Docket No. CENT 90-95-M. (Issues include whether the judge properly found that the operator violated (1) 30 CFR § 56.5050(b) for failing to use feasible administrative or engineering controls to reduce drill operator's exposure to excessive noise; and (2) 30 CFR § 56.7002 for cracks in the boom support structure of a drill.

Any person attending this meeting who requires special accessibility features and/or auxiliary aids, such as sign language interpreters, must inform the Commission in advance of those needs. Subject to 29 CFR § 2700.150(a)(3) and § 2706.160(d).

CONTACT PERSON FOR MORE INFO: Jean Ellen (202) 653-5629/(202) 708-9300 for TDD Relay 1-800-877-8339 for Toll Free.

Jean H. Ellen,

Agenda Clerk.

[FR Doc. 91-28030 Filed 11-18-91; 12:20 pm]

BILLING CODE 6735-01-M

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

TIME AND DATE: 10:00 a.m., Tuesday, November 26, 1991.

PLACE: Marriner S. Eccles Federal Reserve Board Building, C Street entrance between 20th and 21st Streets, N.W., Washington, D.C. 20551.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

1. Personnel actions (appointments, promotions, assignments, reassignments, and salary actions) involving individual Federal Reserve System employees.

2. Any items carried forward from a previously announced meeting.

CONTACT PERSON FOR MORE INFORMATION:

Mr. Joseph R. Coyne, Assistant to the Board; (202) 452-3204. You may call (202) 452-3207, beginning at approximately 5 p.m. two business days before this meeting, for a recorded announcement of bank and bank holding company applications scheduled for the meeting.

Dated: November 18, 1991.

Jennifer J. Johnson,

Associate Secretary of the Board.

[FR Doc. 91-28084 Filed 11-18-91; 3:48 pm]

BILLING CODE 6210-01-M

NATIONAL TRANSPORTATION SAFETY BOARD

TIME AND DATE: 9:30 a.m., Tuesday, November 26, 1991.

PLACE: Conference Room 3A (3rd Floor), 490 L'Enfant Plaza East, SW., Washington, DC 20594.

STATUS: Open.

MATTERS TO BE CONSIDERED:

5431A—Pipeline Accident Report: Natural Gas Explosion and Fire, U.S. Department of Defense, Fort Benjamin Harrison, Near Indianapolis, Indiana, December 9, 1990.

NEWS MEDIA CONTACT: Telephone (202) 382-0660.

FOR MORE INFORMATION CONTACT: Bea Hardesty, (202) 382-6525.

Dated: November 15, 1991.

Bea Hardesty,

Federal Register Liaison Officer.

[FR Doc. 91-27980 Filed 11-15-91; 4:58 pm]

BILLING CODE 7533-01-M

SECURITIES AND EXCHANGE COMMISSION AGENCY MEETING

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

A closed meeting will be held on Tuesday, November 19, 1991, at 3:30 p.m.

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

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

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

The subject matter of the closed meeting scheduled for Tuesday, November 19, 1991, at 3:30 p.m., will be:

Institution of injunctive actions.

Institution of administrative proceedings of an enforcement nature.

Settlement of administrative proceeding of an enforcement nature.

Settlement of injunctive actions.

At times, changes in Commission priorities require alterations in the scheduling of meeting items. For further information and to ascertain what, if any, matters have been added, deleted or postponed, please contact: Holly Smith at (202) 272-2100.

Dated: November 7, 1991.

Jonathan G. Katz,

Secretary.

[FR Doc. 91-28048 Filed 11-18-91; 12:43 pm]

BILLING CODE 8010-01-M

Corrections

Federal Register

Vol. 56, No. 224

Wednesday, November 20, 1991

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

SMALL BUSINESS ADMINISTRATION

13 CFR Parts 108 and 120

Development Companies and Business Loans

Correction

In rule document 91-25885 beginning on page 55445 in the issue of Monday, October 28, 1991, make the following correction:

On page 55446, the table was incorrect and should appear as set forth below:

Owner	% of Holding Company		% of Operating
Father.....	50	Any combination	0
Mother.....	0		20
Son 1.....	15		0
Son 2.....	15		50
Son of Son 2.....	0		10
Key Manager.....	15	Mirror Image	15
1st cousin of father.....	5		5
	100		100

BILLING CODE 1505-01-D

Final Report

Wednesday
November 20, 1991

Part II

Department of Commerce

National Oceanic and Atmospheric
Administration

50 CFR Part 222

Policy on Applying the Definition of
Species Under the Endangered Species
Act to Pacific Salmon; Endangered and
Threatened Species; Endangered Status
for Snake River Sockeye Salmon; Notice
and Final Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[Docket No. 910248-1255]

Policy on Applying the Definition of Species Under the Endangered Species Act to Pacific Salmon

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Notice of policy.

SUMMARY: The Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq.* (ESA) defines "species" to include any "distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." NMFS announces its final policy on how it will apply this definition of "species" in evaluating Pacific salmon stocks for listing under the ESA. A salmon stock will be considered a distinct population, and hence a "species" under the ESA, if it represents an evolutionary significant unit (ESU) of the biological species. The stock must satisfy two criteria to be considered an ESU: (1) It must be substantially reproductively isolated from other nonspecific population units; and (2) it must represent an important component in the evolutionary legacy of the species. Only Pacific salmon stocks that meet these criteria will be considered by NMFS for listing under the ESA.

EFFECTIVE DATE: November 20, 1991.

FOR FURTHER INFORMATION CONTACT: Patricia Montanio, Protected Species Management Division, NMFS, 1335 East-West Highway, Silver Spring, MD 20910 (301/427-2322), or Rob Jones, Environmental and Technical Services Division, NMFS, Portland, OR 97232 (503/230-5401 or FTS/429-5401).

SUPPLEMENTARY INFORMATION:**Background**

The stated purposes of the ESA are to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, (and) to provide a program for the conservation of such endangered species and threatened species" (ESA section 2(b)). A review of legislative history indicates that a major motivating factor behind the ESA was the desire to preserve a genetic variability, both between and within species. For example, the House Committee on Merchant Marine and Fisheries described the rationale for H.R. 37, a forerunner to the ESA, in the following terms (H.R. Rep. No. 412, 93d Cong., 1973):

From the most narrow possible point of view, it is in the best interests of mankind to minimize the losses of genetic variations. The reason is simple: they are potential resources. They are keys to puzzles which we cannot yet solve, and may provide answers to questions which we have not yet learned to ask.

Under the original 1973 Act, a "species" was defined to include "any subspecies of fish or wildlife or plants and any other group of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature." Use of this language established that the ESA protective measures extend to biological units below the subspecies level. Amendments in 1978 provided the current language in the ESA: A "species" is defined to include " * * * any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature."

Congress has provided limited guidance for interpreting this definition. In 1979, Congress declined to enact a provision recommended by the General Accounting Office that would have removed the authority to list vertebrate populations. The Senate Report to the 1979 amendments, however, stated that "the committee is aware of the great potential for abuse of this authority and expects the FWS to use the ability to list populations sparingly and only when biological evidence indicates that such action is warranted" (S. Rep. No. 151, 96th Cong., 1979). The ESA also requires that all listing determinations be made solely on the basis of the best scientific and commercial data available (ESA section 4(b)(1)).

Both the U.S. Fish and Wildlife Service (FWS) and NMFS, which share jurisdiction under the ESA, have made listing determinations for populations of vertebrate species; but neither Service has established criteria for determining what qualifies as a distinct population. Joint regulations concerning Listing Endangered and Threatened Species and Designating Critical Habitat (50 CFR part 424) provide that a determination on whether or not a particular population is a "species" under the ESA should rely on the biological expertise of the agency and the scientific community (50 CFR 424.11(a)).

Interim Policy

In 1990, NMFS received petitions to list five stocks of Pacific salmon under the ESA. To address these and other Pacific salmon stocks, NMFS published its "Interim Policy on Applying the

Definition of Species Under the Endangered Species Act to Pacific Salmon" (interim policy) on March 13, 1991 (56 FR 10542). In support of this interim policy, the NMFS Northwest Fisheries Center prepared a Technical Memorandum on "Definition of 'species' under the Endangered Species Act: Application to Pacific salmon," (Waples 1991). Comments on the interim policy and supporting paper were requested through June 11, 1991. NMFS used the interim policy in its proposed determinations to list the Snake River sockeye salmon (April 5, 1991; 56 FR 14055), the Snake River fall chinook salmon (June 27, 1991; 56 FR 29547), and the Snake River spring/summer chinook salmon (June 27, 1991; 56 FR 29542), and in its final determination not to list the Lower Columbia River coho salmon (June 27, 1991; 56 FR 29553).

Based on comments received, NMFS issues this final policy. The NMFS Northwest Fisheries Center has also revised the supporting paper "Pacific salmon and the definition of 'species' under the Endangered Species Act" (Waples In press Marine Fisheries Review), which is available upon request (see **FOR FURTHER INFORMATION CONTACT**). This final policy will be used in all Pacific salmon listing determinations until revised or superseded. NMFS has reviewed its "species" determination for the listed Sacramento River winter-run chinook salmon (February 27, 1978, 52 FR 6041; December 9, 1988, 53 FR 49722; August 4, 1989, 54 FR 32085; November 5, 1990, 55 FR 46515) and concludes that consideration of this final policy does not necessitate any change of that determination.

Summary of Comments and Responses

Twenty-one written comments were received. Fourteen respondents agreed with the general framework of the interim policy, although several had suggestions for improvements in specific details. Six respondents disagreed with the framework and believed that substantial changes are needed. Summaries of the major points and responses are provided below.

General

Comment: A number of comments were received on the process NMFS used in developing this policy. Two respondents believed that "distinct population" should be defined by rulemaking; one of these believed it should be subject to formal rulemaking under the Administrative Procedure Act (APA). Others believed the process violated APA because it is based on

material not available to the public, *i.e.*, the results of the 1990 Vertebrate Population Workshop, and because the "not warranted" and the proposed listing determinations on the petitioned stocks did not consider comments on the interim policy.

Response: NMFS believes its process is consistent with the requirements of the APA. Formal rulemaking is required under the APA only "when the rules are required by statute to be made on the record after opportunity for an agency hearing" (5 U.S.C. 553(c)). Developing a policy is not a prerequisite to making proposed or final determinations under the ESA. However, in view of the unique life history characteristics of salmon, NMFS believes a statement of policy is useful. Notice and comment procedures were used in developing this final policy, even though not required by the APA (5 U.S.C. 553(b)(A)). The basis for the interim policy, including concepts discussed at the 1990 Vertebrate Population Workshop, was set forth in the interim policy (56 FR 10542; March 13, 1991) and supporting paper (Waples 1991). Comments were requested and considered in developing this final policy. Future Pacific salmon listing actions, including the final determinations on Snake River sockeye and chinook salmon stocks, will use this final policy to evaluate whether or not the stocks qualify as "species" under the ESA. NMFS has reviewed the "species" determination and all comments received on the Lower Columbia River coho petition and concludes that this final policy does not change that determination.

Comment: One respondent believed that the definition of "species" is a legal interpretation subject to judicial review solely for consistency with Congressional intent and is not a factual "biological" determination subject to judicial deference to the agency expertise.

Response: NMFS recognizes that the definition of "species" under the ESA is in part a legal interpretation subject to judicial review. However, species and populations are biological concepts that must be defined on the basis of the best scientific and commercial data available, just as the decision to list "species" as endangered or threatened (see section 4(b)(1)(A) of the ESA). This final policy is based on all available techniques of statutory interpretation, including legal analysis, scientific usage, and public comments.

Comment: A number of comments were received on the need for a policy. Some respondents believed that a policy was unnecessary, that it would constrain the agency's authority to list

populations, and that a straightforward application of the intent of the ESA to preserve genetic diversity should be used. These respondents believed that Congress clearly demonstrated an expansive intent to protect endangered and threatened wildlife, and any policy that narrows the definition of "species" is unwarranted and contrary to the intent of the ESA. One respondent believed that since Pacific salmon present a unique situation that Congress has never considered, language such as in the 1979 Senate Report (S. Rep. No. 151, 96th Cong., 1979) should not be used to limit the agency's authority to list populations.

Other respondents believed that a policy is needed that provides a general framework for determining populations, but leaves flexibility to take into account uncertainties and special circumstances. Some believed that, consistent with the expressed intent of the ESA, the authority to consider distinct populations should be exercised only in those relatively unique circumstances when a population can be shown to be truly distinct. These respondents believed that the management implications of listing each threatened or endangered population would put an enormous strain on agency resources.

Many other respondents believed that a more specific policy is needed to establish clear direction; otherwise definitions of species under the ESA could be subject to different interpretations and could be subject to abuse.

Response: NMFS does not believe that the intent of Congress is clear as to the meaning of "distinct population." The ESA allows vertebrate populations that are "distinct" to be considered "species," but does not explain how distinctness should be measured. Therefore, it is important that NMFS explain and notify the public of its interpretation of the ESA and how it will apply its interpretation to Pacific salmon. This final policy is intended to provide guidance, consistent with the ESA and the intent of Congress.

Further, NMFS does not believe that it is possible to establish highly specific or quantitative standards for determining distinct populations. The process of evolution and differentiation within and between species is manifest in many different ways. Many natural populations show varying degrees of distinctness, and the variations do not always have discrete boundaries. Expert scientific judgment is required in determining what should be considered distinct populations.

Comment: One respondent pointed out that listing of U.S. populations is allowed, citing language from the 1979 Senate Report:

The U.S. population of an animal should not necessarily be permitted to become extinct simply because the animal is more abundant elsewhere in the world.

(S. Rep. No. 151, 96th Cong., 1979). This respondent also believed that it is not necessary that the U.S. population be reproductively isolated from non-U.S. populations.

Response: NMFS agrees that it may be appropriate to list U.S. populations of species more abundant elsewhere. Under the NMFS policy, a U.S. population could be listed if it is a "distinct population," *i.e.*, an ESU, based on the best scientific evidence available. NMFS believes that the population concept used in the ESA is a biological one, and that political boundaries alone should not be used to define populations. Biological populations must exhibit some degree of reproductive isolation, and, therefore, NMFS disagrees with the second point made by this respondent. However, the entire population (occurring within and outside of the United States) may qualify as an ESU and be considered for listing, particularly if the U.S. portion is a substantial portion of the ESU.

Comment: Two respondents believed that although the interim policy appears to be suitable for Pacific salmon, difficulties might be expended if it were to be applied to some other vertebrates.

Response: This final policy applies only to Pacific salmon, and NMFS will consider these broader comments in developing an overall policy of defining distinct vertebrate population under the ESA.

ESU Concept

Comment: Six respondents agreed that the primary purpose of the ESA is to protect "genetic diversity," "genetic variability," "unique genetic material," or "distinct evolutionary lineages," and one stated that the interim policy adequately addressed ecological concerns. Other respondents stressed the importance of preserving "biodiversity" and the "aesthetic, ecological, recreational, and scientific value" of species. One respondent argued that the interim policy does not adequately take into account the ecological significance of a population and its role in maintaining ecosystems, and another believed that protection of existing distributions of species should be a primary basis for "species" determination.

Response: NMFS recognizes the importance of conserving ecosystems, but this must be accomplished within the limits of what the ESA allows. In general, the ESA provides that the "purposes of the Act are to provide a means whereby the ecosystems upon which endangered and threatened species depend may be conserved * * * (ESA section 2(b)). The key is the link between threatened and endangered species and their native ecosystems. There may be a number of good reasons for maintaining populations of "keystone" species in ecosystems where they play a key role in fostering diversity, but unless such populations can be shown to be "distinct," such efforts must be accomplished outside the purview of the ESA as presently written.

NMFS believes that its interpretation of the definition of "species" is consistent with the goal of the ESA to conserve genetic resources, both within and between species. If this goal is achieved, then other benefits of biodiversity follow naturally. Attempting to preserve populations for their aesthetic, scientific, or recreational value without regard to the underlying genetic basis for diversity focuses on attributes that are not directly related to long-term survival of the species. While NMFS supports efforts to maintain biological diversity, habitat conservation, and species distributions, NMFS does not believe that the provisions of the ESA provide specifically for these broader objectives.

Comment: Two respondents argued that the ESA allows listing of any geographic population, and that the populations do not have to be reproductively isolated or genetically distinct. One cited the 1987 House Report that states "Any species or subspecies of fish, wildlife, or plants may be listed. In addition, geographically distinct populations of vertebrate species may be listed." (H.R. Rep. No. 467, 100th Cong., 1987). Others argued that a population need only be reproductively isolated, and that the "evolutionary significance" criterion should be deleted. Still other respondents believed that reproductive isolation was not enough to qualify a population as a "species," and that the "evolutionary significance" criterion is appropriate.

Response: Biological populations, by definition, exhibit some degree of reproductive isolation from other populations, whether based on geographic separation or other factors. The reproductive isolation criterion is consistent with the definition of species

in the ESA which includes "any distinct population * * * which interbreeds when mature." (ESA section 2(15)).

Further, NMFS does not believe that all populations are included in the ESA definition of "species." The ESA requires that a vertebrate population be "distinct" to qualify as a "species." NMFS believes its interpretation that, to be considered "distinct," a population (or group of populations) must meet the two criteria set out in the interim policy, is consistent with the ESA.

Comment: Several respondents believed that some words or terms should be more clearly defined, including "important component," "evolutionary legacy," "evolutionarily important," "significant loss," "contributes substantially," "substantially reproductively isolated," and some technical terms. Another respondent pointed out that the terms "unique habitat" and "unique adaptation" are not really very meaningful because, when considered on a fine scale, all habitats (and all adaptations) are unique in some way.

Response: NMFS has clarified where possible a number of the terms in the final policy and supporting paper, which provides more extensive explanation of how many of these concepts will be evaluated in practice. NMFS agrees with the respondent regarding use of the word "unique," and has changed the policy to refer to "unusual" or "distinctive" habitat and adaptations. Nevertheless, precise definitions are not possible for many of the terms, as discussed in the next response.

Comment: Many respondents argued that the concept of evolutionary significance is too subjective and asked for more definitive guidelines for making this determination. Several others argued that there are no universal markers that will unfailingly define distinct population segments: e.g., "a simple cookbook species definition is not scientifically defensible. Site specific and special-case factors are relevant and must be considered."

Response: NMFS recognizes that the framework of this final policy will not be as easy to apply as would a simple rule. Nevertheless, the wide diversity of views expressed by the respondents on virtually every issue lends credence to NMFS' belief that no simple yardstick will be universally applicable. Inevitably, basing the "species" determination on the best scientific information available will require some judgment.

Reproductive Isolation Criterion

Comment: A number of respondents emphasized the complexity of

evaluating the degree of reproductive isolation in Pacific salmon. One stressed that reproductive isolation in these species is seldom absolute; therefore, the task is to identify cases of "significant" reproductive isolation. One, citing an example in which morphologically indistinguishable populations from the same drainage were shown to be chromosomally distinct, argued for caution in assuming that nearby populations are not isolated. Another respondent agreed, arguing that gene flow needs to be documented: "wandering does not equal straying * * * spawned-out fish, or even their offspring rearing in the stream, does not mean that the fish will survive to mature and leave offspring whose genes will enter the population." And, another respondent argued the opposing view, that minor genetic differences between populations should not necessarily be grounds for a finding of reproductive isolation. Another argued that geographic proximity may be irrelevant to the degree of reproductive isolation in Pacific salmon.

Response: NMFS believes that each of these comments has merit. A variety of factors (temporal variation, non-random sampling, etc.) might lead to small genetic (or phenotypic) differences between samples, and care must be used in inferring reproductive isolation from such data. The caveats about wandering and straying mirror those in the Technical Memorandum, and NMFS also recognizes that adjacent populations of anadromous salmonids can sometimes be strongly isolated reproductively. The diversity of comments on this topic illustrates the importance of evaluating each case individually, giving consideration to all available types of scientific information and recognizing the strengths and limitations of each.

Comment: Two respondents pointed out that the exchange of some genetic material (e.g., mitochondrial DNA) between populations or species can occur at a different (often faster) rate than the exchange of nuclear genes, and if this happens, the question of reproductive isolation can be quite complicated.

Response: The respondents are correct to point out this possibility. In the event that different types of genetic analyses lead to different conclusions regarding reproductive isolation, NMFS recommends that all other available lines of evidence be utilized to help clarify the situation.

Comment: One respondent believed that the discussion of recolonization rates in the Technical Memorandum

was overly simplistic, stating that simple replacement of individuals of the same species does not necessarily imply equivalence; the new population might consist of animals less well adapted to the habitat. Another respondent questioned the statement in the Technical Memorandum that, "Presumably, an area that would be repopulated at or near the previous abundance level in a short time would be unlikely to harbor an ESU." The respondent argued that an introduced population might actually do better than the native population, but this does not necessarily mean that the indigenous population is not uniquely suited to its environment.

Response: The passage cited from the Technical Memorandum was meant to refer to natural recolonization, not introductions of exogenous populations. The text in the revised supporting paper has been changed to make this clear. NMFS agrees that replacement does not necessarily imply equivalence; the point here is that if natural replacement is rapid, whether with equivalent individuals or not, one must question whether the population was isolated in the first place. Caveats noted in the Technical Memorandum and by the respondents against drawing casual conclusions from such data will be given appropriate consideration.

Ecological/Genetic Diversity Criterion

Comment: One respondent asked NMFS to clarify whether an affirmative answer to any of the four rhetorical questions relating to the ecological/genetic diversity criterion should be considered strong evidence that the population is an ESU. Another asked whether the fourth of these questions, "If the population became extinct, would this event represent a significant loss to the ecological/genetic diversity of the species?" should be considered from the point of view of the fish species or mankind.

Response: The question of "significant loss" is to be interpreted with respect to the biological species. This question is really at the heart of the "evolutionary significance" concept, and a clear, affirmative answer to this question is a very strong indication that the population in question is an ESU. The other three questions are more specific and address topics that are important to consider (but are not necessarily conclusive) in evaluating evolutionary significance; each of these three questions should be viewed as one part of a larger inquiry. The policy has been clarified to reflect this.

Comment: A variety of views was expressed on the relative importance to

attach to different types of data in determining whether populations meet the "ecological/genetic diversity" criterion. Several respondents believed that the interim policy does not provide enough guidance, whereas others emphasized that the most relevant type of information will differ from case to case, and evaluating distinctness will require expert judgment based on all available data. One respondent argued that the different types of data can be ranked as follows: "direct evidence of adaptive differences is most important, followed by evidence of unique alleles (one of two or more forms of a particular gene), large differences in allele frequencies, and lastly perceived differences in selective pressures."

Two respondents believe that the interim policy placed too much emphasis on genetic characteristics, and three believed that genetic traits should be accorded more importance. Two respondents argued that phenotypic or life history traits should weigh heavily in favor of finding a population to be distinct; two others argued that such characteristics are inherently unreliable because of the potential for strong environmental influence. One respondent commented that although analysis of morphological characteristics is complicated by environmental and size effects, these characteristics might be relatively more useful for groups of vertebrates with determinate growth (e.g., birds and mammals). Several respondents expressed the view that more work is necessary to sort out the genetic and environmental effects on phenotypic characteristics. One respondent argued that habitat characteristics should be "heavily weighted in favor of finding a population to be distinct;" another believed that, because of uncertainty about the selective importance of habitat differences, such data "are less useful than other information that can be collected."

Response: NMFS agrees that the task of sorting out genetic and environmental effects on phenotypic characteristics is a difficult but important one. Although caution must be used in interpreting data for such characteristics, they should not be dismissed out of hand. There is a strong evidence for a genetic basis for some phenotypic and life history characteristics in some Pacific salmon populations. NMFS continues to recommend that judgments regarding evolutionary significance be made based on all available scientific information, weighted as deemed most appropriate for the particular case.

A major concern regarding unique alleles (those found in only one

population or one geographic region) is sampling error; that is, the failure to find the alleles in other localities may be due to inadequate sampling. Nevertheless, alleles that have been found in only one area and occur there at moderate or high frequency suggest a substantial degree of reproductive isolation. The same inference may be drawn from the occurrence of a number of unique alleles at low frequency. Further, although unique alleles do not necessarily reflect adaptation, they may, if numerous or at high frequency, provide an indication of likely adaptive differences elsewhere in the genome (see also next response).

Comment: Two respondents cautioned against automatically assuming that all electrophoretically detectable variation is selectively neutral. One also argued that such variation is evolutionarily important in the sense that it provides the raw material upon which selection may act in the future. Another respondent argued that because electrophoretically detectable variation is largely neutral, it provides little information relative to the question of evolutionary significance beyond the insights it may provide regarding reproductive isolation.

Response: NMFS agrees with the respondents that there is persuasive evidence in a number of organisms for adaptive variation at some gene loci detected by protein electrophoresis. The key questions are: (1) How much of the electrophoretically-detectable variation is neutral, and (2) How much is influenced by natural selection? This issue has been debated by evolutionary biologists for over 2 decades, without a complete resolution of opposing views. Nevertheless, the majority opinion seems to be that most such variation is effectively neutral. That is, if selection is occurring, it is weak enough that the behavior of genotype and allele frequencies is dominated by random genetic drift. This does not rule out strong selection at some electrophoretically detectable gene loci, and this possibility should always be kept in mind in evaluating such data.

NMFS also agrees that, even if essentially neutral at present, genetic variation at protein-coding loci provides a reservoir of raw material upon which natural selection may act at some future time. Thus, such variation may play an important role in evolution. The Technical Memorandum stressed that the bulk of evidence for adaptive differences must come from sources other than protein electrophoresis. However, the magnitude of presumably neutral differences can also provide insight into the likelihood that adaptive

differences are present at other parts of the genome, and in this respect such data can be useful in drawing inferences about evolutionary significance.

Comment: One respondent agreed with the statement in the interim policy that "failure to find (genetic) differences (or the absence of genetic data) would * * * place a greater burden of proof on data for other characters." Another disagreed, arguing that this would shift emphasis to the most subjective characteristics, and therefore the inability to detect genetic differences might be used to exclude populations from ESA consideration. Three other respondents expressed the view that the lack of demonstrable genetic differences should not weigh heavily against finding a population distinct. One of these asked that NMFS affirm that the absence of genetic data "would not preclude consideration of that population as an ESU."

Response: There are really two separate, albeit related, issues here: (1) How to proceed in the absence of any direct genetic information? and (2) How to proceed if there are some genetic data, but they fail to show significant differences between populations? Regarding the first question, NMFS recognizes that the majority of "species" determinations under the ESA have been made without the aid of any direct genetic evidence. Data from protein electrophoresis or DNA analyses can be very useful in determining population "distinctness," but they are not essential. NMFS believes that, to be considered an ESU, a population must be genetically distinct from other conspecific populations—because population characteristics that are evolutionarily significant must have a genetic basis. This does not mean, however, that the genetic differences must be (or can be, in every case) detected by any particular analytical technique. Thus, NMFS agrees that a lack of direct genetic information does not preclude consideration of a population as an ESU. However if no direct genetic information is available, evidence to support an ESU must be found elsewhere, which inescapably places a greater burden of proof on other characteristics.

Rather than a complete absence of genetic information, the second issue involves how to proceed if available genetic data do not provide evidence for population distinctness. Caution is required in drawing a conclusion of "no difference" on the basis of such data, as there are numerous examples in the scientific literature of well-differentiated populations or species that cannot be

reliably distinguished using available genetic techniques, as well as cases in which further analysis has shown previously in distinguishable populations to be genetically different. Again, NMFS agrees that a finding of "no significant difference" on the basis of protein electrophoresis or DNA analysis does not rule out consideration of a population as an ESU. On the other hand, the possibility must also be considered that the available data accurately reflect a lack of overall genetic differences between populations. This hypothesis should be evaluated in terms of the comprehensiveness of the genetic analyses and the observed pattern of genetic variation in the species. Studies that have used large samples and a large number of genetic markers without revealing population differences place a clear burden of proof on other characteristics to satisfy the two criteria for an ESU.

Comment: Several respondents questioned the focus on the past implied by the term "evolutionary legacy." Two of these argued that recent isolates (including those populations isolated as the result of human activities) should be considered "species" under the ESA because every such isolate holds the potential to become evolutionarily important to the species (possibly even become a new species) at some point in the future. Another respondent argued that some populations that have been evolutionarily important to the species in the past may be "dead ends" in terms of future evolutionary potential.

Response: NMFS believes that considering recently isolated stocks to be ESUs simply on the basis of their isolation is not appropriate. The loss of such isolates, whether resulting naturally or from human activities, would generally not represent an irreversible loss of diversity to the species because presumably most of the genetic diversity contained in the isolates would still reside in the parent population. The isolate might eventually become an ESU if the isolation were to persist for a long enough period of time. If, however, fragmentation into isolated segments poses a threat to a larger population unit as a whole, the entire unit may be considered for protection, as discussed under "Groups of Populations" below.

The term "evolutionary legacy" was not meant to be construed only in a historical sense. Rather, the term is used in the sense of "inheritance"—that is, something received from the past and carried forward into the future. This reflects the concern expressed in the

ESA "to better safeguarding * * * the Nation's heritage in fish, wildlife, and plants." (ESA section 2(a)(5)). Specifically, the evolutionary legacy of a species is the genetic variability that is a product of past evolutionary events and that represents the reservoir upon which future evolutionary potential depends. In evaluating vertebrate populations, NMFS cannot predict which ones will play major evolutionary roles in the future. Rather, NMFS believes that efforts should focus on conserving genetic resources of species (their "evolutionary legacy") so that the dynamic process of evolution will not be unduly constrained in the future.

Anadromy/Nonanadromy

Comment: One respondent argued that for an anadromous/nonanadromous unit to be considered an ESU, it is not necessary to show both (1) that there is a genetic basis for the anadromy and (2) that the anadromous component makes the population distinct; demonstration of either should be sufficient. Another respondent expressed the fear that under the interim policy, the anadromous portion of a population could become extinct without triggering any ESA protection. A third respondent believed that the key question is, "What is the likelihood of the nonanadromous form giving rise to the anadromous form after the latter has gone locally extinct?"

Response: NMFS believes that anadromous and nonanadromous traits should be considered in the same way as other traits in determining whether a population is an ESU. Traits that contribute to evolutionary significance must have a genetic basis, but not all genetically-based traits will make a population an ESU. It is also necessary to ask whether loss of the trait would compromise the distinctiveness of the population. Thus, both conditions must be met. NMFS agrees that the question posed by the third respondent is relevant to the key issue—does the anadromous trait make the population distinct?

Differences in Run-Time

Comment: One respondent argued that differences in run-timing are sufficient to establish ecological/genetic diversity between reproductively isolated populations. Another respondent argued that run-timing distinctions "should be taken into account from a purely biological perspective" and should not be a factor in evaluating distinctiveness unless a link can be shown between run-time differences and the overall health of the biological species.

Response: Run-time differences can provide information relevant to each of the two criteria for an ESU. Timing differences that contribute to reproductive isolation are relevant to the first criterion, and timing differences that also contribute substantially to ecological/genetic diversity are relevant to the second criterion. In both cases, it is first important to establish that the timing differences have an inherent biological basis and are not largely artifacts of past or present management practices. NMFS believes that run-timing differences should be considered in the same fashion as other characteristics in evaluating the two criteria. A demonstration of timing differences does not automatically lead to a firm conclusion regarding either criterion; rather, such information should be considered together with all other available data. Note that it is possible for run-timing differences to be sufficient to establish reproductive isolation between population segments that do not differ enough ecologically/genetically to be considered separate ESUs.

Effects of Supplementation

Comment: One respondent agreed with the statement in the interim policy that evidence merely of the release of exogenous fish is not sufficient to disqualify a population from consideration as an ESU; the important question is whether the introduced fish have successively reproduced and contributed to later generations. The respondent believed, however, that in cases where successful mixing can be documented, it is better simply to apply the two-criteria test for an ESU than to ask (as suggested in the Technical Memorandum) whether stock mixing has compromised evolutionarily important adaptations in the indigenous population.

Response: NMFS agrees with the respondent that meeting the two criteria is the real test of whether a population affected by artificial propagation is an ESU. In making this evaluation, however, it may be useful to consider whether the population was likely to have been an ESU in the past and ask whether stock mixing has compromised the evolutionarily important adaptations that distinguished the original population.

Historic Population Size

Comment: One respondent stated that, with respect to historic population size, the interim policy considers only genetic factors as a cause of extinction. The respondent further stated that the question of historic population size

should be considered "only if more direct methods of evaluating the evolutionary importance of a population are inconclusive." Another respondent questioned whether NMFS is likely to be in the position of artificially maintaining units that might naturally undergo periodic episodes of extinction/recolonization, given that ESA protection presumably would extend only to manmade (and not environmental) disturbances.

Response: The Technical Memorandum noted that demographic and environmental variability poses risks for small populations, and concluded that "such fluctuations may place greater constraints on the long-term survival of small populations than do genetic factors associated with inbreeding." NMFS agrees with the respondent that theoretical considerations about the likely persistence time of small populations should not be used to dismiss strong evidence for long-term reproductive isolation. Historic population size is only one consideration in determining whether a population is an ESU.

It is not likely that NMFS will be artificially maintaining populations that would naturally go extinct because such small populations are unlikely to be considered ESUs, although a collection of them might be. Absent other compelling information, a Pacific salmon population will not be considered an ESU if the historic size is too small to assume that the population has remained isolated over an evolutionarily important time period. Evaluating the historic population size is useful in focusing attention on populations with the greatest probability of representing ESUs. NMFS notes, however, that the ESA allows a "species" to be listed based on natural or manmade threats to its continued existence.

Groups of Populations

Comment: One respondent believed that the topic of groups of populations is very important and should be addressed more thoroughly. One respondent believed that the statement in the Technical Memorandum, "In general * * * ESUs should correspond to more comprehensive units unless there is clear evidence that evolutionarily important differences exist between smaller population segments," is an inappropriate reversal in the burden of proof from the intent of Congress. Another respondent commented that:

a trade-off must be resolved between the evolutionary significance of that level of population structure and the stability of individual units * * * Groups of spawning aggregations which experience highly

reduced gene flow between groups, relative to gene flow within groups, should be considered evolutionary units under the ESA process.

Response: As anadromous species, Pacific salmon spawn in a freshwater environment that is often naturally organized in a hierarchical fashion—major river systems may contain several large tributaries, each with numerous streams fed by smaller creeks, etc. Other areas may be characterized by numerous smaller streams, each entering directly into a tidewater area. In both cases, geographical, environmental, or other factors may naturally lead to genetic structuring of the various spawning aggregations into more or less discrete units. NMFS agrees with the last respondent that the first step in determining the appropriate hierarchical level for consideration as an ESU is to identify units within which levels of gene flow are high relative to the rate of exchange between neighboring units. Often, however, there will be more than one hierarchical level for which this is true. Therefore, it is also important to identify such reproductively isolated units that contribute substantially to the ecological/genetic diversity of the species as a whole.

The statement about "more comprehensive units" was not intended to diminish the level of protection afforded to distinct populations. Rather, it reflects (1) the view that population "distinctness" should be supported by positive scientific evidence, and (2) the concern that fragmenting groups of populations into multiple ESUs on the basis of insufficient data may create artificial units without a biological basis.

Comment: Two respondents believed that the interim policy would not provide sufficient protection for ESUs fragmented by habitat degradation or loss. One of these respondents expressed particular concern for species "exhibiting clinal gradations of certain characters rather than discrete, separate units," arguing that the interim policy might allow destruction of an important component of the population (or its habitat) because it was not sufficiently discrete. Another respondent requested clarification on the linkage between the definition of "species" and the determination of thresholds for "threatened" and "endangered" status, arguing that "the threshold must ensure protection for such smaller populations in order to maintain the long-term viability of the overall ESU."

Response: NMFS believes that "distinctness" as it pertains to the ESA

is an evolutionary attribute of a population; therefore, recent human-influenced events resulting in fragmentation of habitat are unlikely to have created "distinct" populations. Similarly, there may be little biological basis for treating populations showing gradual transition along a geographic or environmental cline as multiple distinct populations.

This does not mean, however, that threats posed by habitat fragmentation should be neglected under the ESA. The underlying concern should be whether important genetic resources of the biological species are at risk because of the fragmentation. If so, then the appropriate action would be to protect the larger population as a whole, rather than the individual fragments. In this context, NMFS recognizes that thresholds for threatened and endangered status must be flexible enough to deal with threats to groups of populations (metapopulations) and clinal populations, as well as more discrete population units. Just as there is no simple formula for determining evolutionary significance, there is no universally applicable numerical threshold for a listing determination; in both types of evaluation, a variety of factors must be considered.

Statistical Considerations

Comment: Several respondents commented on statistical issues. One argued that the statement in the interim policy, "In general * * * the appropriate null hypothesis to test is that no differences exist between the populations being compared," leads to bias against a listing determination. Another cautioned against considering modest, but statistically significant, allele frequency differences as sufficient proof of evolutionarily important differences between populations. A third respondent pointed out that the interim policy does not stipulate a significance level (e.g., the 5-percent or 1-percent level) that should be used for statistical tests.

Response: NMFS was careful in the Technical Memorandum to point out that statistical significance and evolutionary significance are different concepts. The above quotation regarding the "appropriate null hypothesis" referred to a test for statistical significance. Adopting an initial hypothesis of "no difference" and testing for differences by attempting to reject this "null" hypothesis as implausible is the foundation of most statistical tests. NMFS acknowledges that formal hypothesis testing may play an important role in ESA considerations, but also recognizes that not all types of information relevant to the "species"

determination are easily quantifiable in this way. Because of the lack of direct connection between statistical and evolutionary significance, and because different tests used on the same data may give different results, NMFS does not endorse (or recommend) any particular significance level for statistical tests. Instead of setting up an arbitrary cut-off for significance such that (for example) a test result at the $P=0.04$ level triggers a listing and one at the $P=0.06$ level does not, NMFS recommends that the approximate significance level of statistical tests be taken into consideration along with other factors in making the "species" determination. The question of minor but significant genetic differences is addressed above under "Reproductive isolation."

Policy Statement

A stock of Pacific salmon will be considered a distinct population, and hence a "species" under the ESA, if it represents an evolutionarily significant unit (ESU) of the biological species. A stock must satisfy two criteria to be considered an ESU:

- (1) It must be substantially reproductively isolated from other conspecific population units; and
- (2) It must represent an important component in the evolutionary legacy of the species.

The first criterion, reproductive isolation, does not have to be absolute, but it must be strong enough to permit evolutionarily important differences to accrue in different population units. Insights into the extent of reproductive isolation can be provided by movements of tagged fish, recolonization rates of other populations, measurements of genetic differences between populations, and evaluations of the efficacy of natural barriers. Each of these methods has its limitations. Identification of physical barriers to genetic exchange can help define the geographic extent of distinct populations, but reliance on physical features alone can be misleading in the absence of supporting biological information. Physical tags provide information about the movements of individual fish but not the genetic consequences of migration. Furthermore, measurements of current straying or recolonization rates provide no direct information about the magnitude or consistency of such rates in the past. In this respect, data from protein electrophoresis or DNA analysis can be very useful because they reflect levels of gene flow that have occurred over evolutionary time scales. NMFS will use all available lines of evidence for and against reproductive isolation, recognizing the limitations of each and

taking advantage of the complementary nature of the different types of information.

To be considered an ESU, the population must also represent an important component in the evolutionary legacy of the species. The evolutionary legacy of a species is the genetic variability that is a product of past evolutionary events and which represents the reservoir upon which future evolutionary potential depends. This second criterion would be met if the population contributed substantially to the ecological/genetic diversity of the species as a whole. In other words, if the population became extinct, would this event represent a significant loss to the ecological/genetic diversity of the species? In making this determination, the following questions are relevant:

1. Is the population genetically distinct from other conspecific populations?
2. Does the population occupy unusual or distinctive habitat?
3. Does the population show evidence of unusual or distinctive adaptation to its environment?

Several types of information are useful in addressing these questions. Again, the strengths and limitations of the information will be considered in making the determination. Phenotypic/life-history traits such as size, fecundity, and age and time of spawning may reflect local adaptations of evolutionary importance, but interpretation of these traits is complicated by their sensitivity to environmental conditions. Data from protein electrophoresis or DNA analysis provide valuable insight into levels of overall genetic differentiation among populations but little direct information regarding the extent of adaptive genetic differences. Habitat differences suggest the possibility for local adaptations but do not prove that such adaptations exist.

NMFS will use the best scientific and commercial data available and will rely on the biological expertise of the agency and the scientific community in making "species" determinations under the ESA. A "species" determination must be supported by scientific evidence. However, the lack of direct genetic or any other type of information does not preclude consideration of a population as a "species" under the ESA if such a finding is supported by other information.

Dated: November 14, 1991.

William W. Fox, Jr.,
Assistant Administrator for Fisheries.

[FR Doc. 91-27617 Filed 11-14-91; 4:02 pm]

BILLING CODE 3510-22-M

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric
Administration
50 CFR Part 222

[Docket No. 910379-1256]

RIN 0648-AD90

Endangered and Threatened Species;
Endangered Status for Snake River
Sockeye Salmon

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Final rule.

SUMMARY: NMFS has determined that the Snake River sockeye salmon (*Oncorhynchus nerka*) is a "species" under the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq.* (ESA) and should be listed as endangered. The Snake River sockeye salmon has declined to extremely low numbers. Current production is limited to Redfish Lake in the Salmon River Basin, Idaho. Hydropower development, water withdrawal and diversions, water storage, harvest, predation, and inadequate regulatory mechanisms are factors contributing to the species' decline and represent a continued threat to the Snake River sockeye salmon's existence.

In a separate rulemaking, the U.S. Fish and Wildlife Service (FWS), Department of the Interior, will add the Snake River sockeye salmon to the U.S. List of Endangered and Threatened Wildlife.

EFFECTIVE DATE: December 20, 1991.

FOR FURTHER INFORMATION CONTACT: Rob Jones, NMFS, Environmental and Technical Services Division, 911 NE 11th Avenue, room 620, Portland, OR 97232, telephone (503) 230-5429 or FTS 230-5429, or Patricia Montano, NMFS, 1335 East-West Highway, Silver Spring, MD 20910, telephone (301) 427-2322.

SUPPLEMENTARY INFORMATION:

Background

NMFS initiated a status review of sockeye salmon (*Oncorhynchus nerka*) in the Salmon River, a tributary of the Snake River, on April 9, 1990 (55 FR 13181). NMFS also received a petition (April 2, 1990) from the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation to list Snake River sockeye salmon as endangered under the ESA. NMFS published a notice on June 5, 1990 (55 FR 22942), that the petition presented substantial scientific information indicating that the listing may be warranted and requested information from the public.

NMFS prepared a technical paper "Status Review Report for Snake River Sockeye Salmon" (Waples *et al.* 1991)

and published a proposed rule (April 5, 1991; 56 FR 14055) for listing Snake River sockeye salmon as an endangered species; comments were requested. This final rule is based on the status review and on comments received on the status review and proposed rule.

Summary of Comments

One hundred and eighty-three written comments were received on the proposed rule. NMFS considered all comments received, including oral testimony from public hearings on the proposal to list Snake River sockeye salmon. The vast majority of comments supported the proposal. Opposition to the proposed rule was primarily based on consideration of Snake River sockeye salmon as a "species" under the ESA. Many commenters provided information pertinent to research needs and recovery planning. Although this information will be very useful in the development of a recovery plan, it will not be addressed here. Information pertinent to the listing decision has been incorporated here. A summary of major comments relevant to the listing determination is presented below.

Life History and Distribution

Some commenters believed that adult returns in recent years to the Sawtooth weir at the Sawtooth hatchery on the Salmon River near Stanley, Idaho, were returning kokanee salmon outmigrants from Alturas Lake. NMFS believes that the natural production of sockeye salmon in Alturas Lake was eliminated when agricultural diversions prevented adult sockeye salmon from reaching the lake. Adults trapped at the Sawtooth weir may have been kokanee salmon returning to Alturas or Redfish Lakes, or sockeye strays from Redfish Lake.

Consideration of Sockeye Salmon as a Species

Some commenters stated that Snake River sockeye salmon are extinct and that the anadromous *O. nerka* returning to Redfish Lake are the same as Redfish Lake kokanee. Others believed that Snake River sockeye salmon were not an evolutionary significant unit (distinct population) and, therefore, do not warrant protection under the ESA. Still others believed that additional research is needed to answer this question.

NMFS has considered available scientific evidence and continues to conclude that the two forms of *O. nerka* in Redfish Lake were historically and are currently distinct. In an attempt to clarify the relationship between Redfish Lake sockeye and kokanee salmon, NMFS initiated genetic testing. Preliminary results show that

outmigrants collected from Redfish Lake Creek in the spring of 1991 are clearly different from Redfish Lake kokanee salmon sampled in the fall of 1990 (Schiewe 1991).

Juvenile Snake River Sockeye Migration

Several commenters stated that insufficient flows are the primary factor affecting downstream migrant juvenile Snake River sockeye salmon. Other commenters disagreed. Some commenters also pointed out that there are factors other than flows affecting the migration and travel time of juvenile Snake River sockeye salmon. NMFS believes that available data show that flows, in conjunction with water velocity, are important to the expeditious migration of juvenile salmon through the existing river system to the ocean. NMFS recognizes that flows and other factors affect the migration rate of juvenile salmon and that all factors must be taken into account in developing a recovery plan.

Some commenters took issue with the NMFS citation of the Columbia Basin Fish and Wildlife Authority's (CBFWA) flow proposal. NMFS did not intend that the reference imply a specific flow level is required to meet a future recovery standard.

The proposed rule identified turbine mortality as an important factor affecting the survival of sockeye salmon. Some commenters stated that the proposed rule should not imply that all other routes of passage are preferable to turbines. NMFS has reviewed available information that indicates that turbine mortality is generally higher than mortality incurred in other routes of passage.

Some commenters stated that the use of Snake and Columbia River water for irrigation is not a major factor causing the decline of Snake River sockeye salmon. NMFS did not intend that the proposed rule establish priorities regarding causes of decline. Rather, the proposed rule identified factors responsible for the decline of Snake River sockeye salmon. The storage and agricultural use of water was identified as such a factor. The rule also identified other passage and flow-related problems resulting from the presence of lower Snake River and Columbia River dams.

Some commenters were critical of the ranges and estimates of specific mortality factors presented by NMFS. NMFS is aware that other estimates of mortality for factors encountered by juvenile and adult fish migrating through the mainstem Columbia and Lower Snake River dams exist, but believes

that it used the best available information.

Habitat

Some commenters stated that the effects of habitat destruction resulting from mining, logging, road building, and grazing were understated in the proposed rule. NMFS recognizes that these activities can result in degradation of water and aquatic habitat quality. However, NMFS did not find and was not presented with evidence that these activities have adversely affected the production of Snake River sockeye salmon.

Overutilization

Commenters expressed conflicting views as to whether the harvest of Snake River sockeye salmon in the Snake and Columbia Rivers was a primary factor contributing to their decline. NMFS recognizes, as stated in the proposed rule, that historic levels of harvest greatly reduced the number of Snake River sockeye salmon and acknowledges that directed commercial harvest of sockeye salmon in the Columbia River was suspended for 1991. Although no data exist on Snake River sockeye salmon harvest specifically, the harvest of sockeye salmon in the Columbia River may be a continuing factor contributing to this population's decline.

Disease and Predation

Comments were submitted indicating that several potential disease pathogens were not addressed in sufficient detail. NMFS acknowledges that infectious hematopoietic necrosis, bacterial kidney disease, whirling disease, *Trichophyra* sp., as well as many other pathogens, can infect sockeye salmon. These pathogens were considered in the proposed rule, but their effects on Snake River sockeye salmon remain undocumented.

One commenter was concerned that a 60-percent predation rate was too low for all early life stages of Redfish Lake sockeye. NMFS agrees that this is a valid concern and further investigation indicates that this percentage should pertain only to juvenile sockeye salmon rearing in lakes. Another commenter asked for clarification of which species of salmon were examined for marine mammal bites at Lower Granite Dam. NMFS notes that these were spring chinook.

Inadequate Regulatory Mechanisms

While some commenters agreed that existing regulatory measures have not been adequate to prevent the decline of Snake River sockeye salmon, many

commenters also noted instances in which existing authorities were not adequately used by NMFS and other fishery agencies due to priorities on other species. Specific comments included the role of NMFS and other fishery agencies in agreements and programs such as the Lower Snake River Fish and Wildlife Compensation Plan (LSRCP), the Idaho Power Company settlement agreement, and the Mitchell Act, which fail to provide mitigation for Snake River sockeye salmon. The 1972 LSRCP was prepared jointly by NMFS, FWS, and fisheries agencies from Idaho, Washington, and Oregon. Artificial propagation of sockeye salmon was not considered at the time the LSRCP was developed due to problems in controlling the infectious hematopoietic necrosis virus. Appropriate technology to manage the virus had not yet been developed in 1972.

One commenter also suggested that the problem was not the inadequacy of the laws but that competing user groups have not resolved water-related issues. NMFS agrees that all comments relating to regulatory mechanisms are useful in that they provide a more thorough history of events, and identify agreements and programs previously accepted by NMFS that may need to be considered in the development of a recovery plan.

Some commenters stated that the Federal Energy Regulatory Commission (FERC) licensing process provides protection for fish resources, and that the FERC license conditions associated with the Hells Canyon Complex are adequate. NMFS notes that recommendations to FERC by fisheries agencies are not always included in FERC license conditions, and FERC licenses are granted for up to 50 years, resulting in a licensing process that may not ensure protection of fish resources.

Many commenters also referred to the inadequacy of the Water Budget and other measures under the Northwest Power Planning Council's Fish and Wildlife Program. Comments on the Water Budget included additional examples of problems with both its structure and implementation. Some, for example, strongly supported statements in the proposed rule regarding the Water Budget's inadequate quantity or operational constraints. Some commenters also said that the Water Budget has not been used for sockeye salmon and has instead been focused on peak migrations of hatchery chinook salmon and steelhead trout. NMFS notes that although there is substantial overlap in the migration timing of these species, it is true that implementation has not focused specifically on Snake

River sockeye salmon. Another commenter believed that, based on Lower Granite Dam passage data, the April 15 to June 15 Water Budget period adequately covers the bulk of the sockeye migration period. NMFS believes that these comments did not consider that the amount of water available may be insufficient to provide for outmigrants during the full 60-day window. A commenter's analysis on the adequacy of a 60-day migration window also failed to account for the considerable distances that Snake River sockeye salmon migrate in-river, both before arriving at, and after leaving, Lower Granite Dam.

Some commented that the Snake River simply does not have enough water under present conditions to provide needed fish migration flows. These commenters stressed the need to consider changes in the operation of the mainstem Snake River reservoirs. One commenter suggested that the current Water Budget provides adequate flows "in most years." As evidence, the commenter cited the report, "The Migrational Characteristics of Chinook Salmon Emanating from the Snake River Basin" by Dr. Albert E. Giorgi, submitted to the Pacific Northwest Utilities Conference Committee (PNUCC), dated April 11, 1991. NMFS reviewed this report but found neither this specific conclusion nor the data to support it. It is also significant to note that the May 9, 1991, comments of the PNUCC, for whom the report was prepared, stated that "There is general agreement that some increased flows above the confluence with the Columbia would assist juvenile migration."

NMFS received comments that state regulatory mechanisms that do not manage harvest to protect Snake River sockeye salmon, do not require irrigation diversions to be screened, and effectively favor consumptive use of water over in-stream use for fish, were more of a cause of the Snake River sockeye's decline than indicated in the proposed rule. As summarized in this final rule, the result of both state and Federal regulatory and enforcement mechanisms has been the failure to protect the Snake River sockeye salmon. At this time, NMFS has not determined which factors contributed most significantly to the species' decline.

Other Factors

Manmade Factors—Artificial Propagation. One commenter questioned whether there was indirect evidence that artificial propagation had compromised the genetic integrity of Stanley Basin sockeye salmon. NMFS

notes that sporadic releases of exotic *O. nerka* stocks have been recorded in the Stanley Basin Lakes since 1921. Electrophoretic analysis of the existing Stanley Basin populations and the most likely donor stocks for these exotic releases are included in the Snake River sockeye salmon Administrative Record. This information was used by NMFS in the "proposed rule to list" and no new information was presented to alter the agency's conclusions.

Other Manmade Factors. Some commenters pointed out that the proposed rule ignored the poisoning of certain Stanley Basin lakes and the erection of migration barriers to adult sockeye salmon to promote recreational trout fishing. These actions were alleged to have caused a significant decline in Snake River sockeye salmon. NMFS believes that the construction of migration barriers reduced the available habitat for Snake River sockeye salmon and has added this to the final rule.

Available Conservation Measures

Some commenters were concerned that the benefits of juvenile fish transportation are uncertain, and that it may actually reduce returns to spawning areas. In addition, one commenter cited 1984-86 studies of sockeye salmon transport from Priest Rapids and Wanapum dams to below Bonneville Dam as evidence that transported sockeye returned at lower rates than control fish released at Priest Rapids and Wanapum dams. As stated in the proposed listing, NMFS believes these studies were inconclusive. Other commenters were concerned that NMFS did not adequately consider the benefits of juvenile fish transportation. They felt that much of the information on the in-river losses of juvenile fish during migration was irrelevant because nearly all Snake River sockeye salmon are collected and transported. NMFS agrees that the uncertainty of transport benefits will need to be addressed. Whether it is as a result of, or in spite of, the existing juvenile fish transportation program, the fact remains that the Snake River sockeye salmon population has continued to decline.

Several commenters were concerned that critical habitat has not been designated. NMFS is not designating critical habitat concurrently with this listing because NMFS does not want to delay this listing decision while the required analyses for designating critical habitat are completed. NMFS intends to propose critical habitat in a separate rulemaking.

Consideration of Snake River Sockeye Salmon as a "Species" Under the ESA

To consider the Snake River sockeye salmon for listing, it must qualify as a "species" under the ESA. The ESA defines a "species" to include any "distinct population segment of any species of vertebrate * * * which interbreeds when mature." Concurrent with this final determination on sockeye, NMFS is publishing its final policy on how it will apply the ESA "species" definition in evaluating Pacific salmon (see "Notice of Policy on Applying the Definition of Species Under the Endangered Species Act to Pacific Salmon" in this issue of the *Federal Register*). A salmon population will be considered a distinct population, and hence a species under the ESA, if it represents an evolutionarily significant unit (ESU) of the biological species. The population must satisfy two criteria to be considered an ESU: (1) It must be substantially reproductively isolated from other conspecific population units; and (2) it must represent an important component in the evolutionary legacy of the biological species. Further guidance on application of this policy is contained in the NMFS paper "Pacific Salmon and the Definition of Species under the Endangered Species Act" (Waples In press).

In this case, the question of population distinctness is complicated by the presence of kokanee salmon in Redfish Lake. One hypothesis is that the sockeye and kokanee salmon share a common gene pool. If so, they should be considered as a unit in ESA evaluations. If the two forms are reproductively isolated, they should be considered separately.

Adult salmon returning to Redfish Lake were not available for comparison (genetic analyses) with spawning kokanee sampled from Fishhook Creek, an inlet stream to Redfish Lake in 1990. However, other evidence suggests that the two forms are distinct (Waples *et al.* 1991). Recent studies of *O. nerka* in other areas of the Pacific Northwest (Foote *et al.* 1989) found substantial genetic differences between the two forms, in spite of occasional cross-spawning behavior and viability of hybrids through early life-history stages in culture. Foote *et al.* (1989) found significant differences in the frequencies of alleles between sockeye and kokanee salmon in each of the lake systems they studied, and also found that the magnitude of genetic divergence between sympatric sockeye and kokanee salmon increased with distance upriver from the ocean. A recent electrophoretic survey conducted by

NMFS also found substantial genetic differences between sockeye and kokanee salmon in two river/lake systems where they co-occur (Monan 1991). Thus, it is likely that, historically, sockeye and kokanee salmon were reproductively isolated in Redfish Lake. This premise is supported by recent evidence that outmigrants from Redfish Lake in 1991 were genetically distinct from Redfish Lake kokanee sampled last year (Schiewe 1991). Further evidence of reproductive isolation is that kokanee continue to spawn in an inlet stream (Fishhook Creek) in August/September, but sockeye salmon spawn later (generally October) and only along shoals in the lake (Bjornn *et al.* 1968; Fulton 1970; Bowler 1990).

An alternative hypothesis, that Sunbeam Dam caused the extinction of the original sockeye salmon gene pool and that recent anadromous *O. nerka* in Redfish Lake have resulted from the seaward drift of kokanee, was also considered (see discussion under "Status of Snake River Sockeye Salmon" below). Although it is known from studies in other geographical areas that kokanee can occasionally produce anadromous fish, the number of outmigrants that successfully return as adults is typically quite low. Furthermore, investigations of kokanee elsewhere have not included migration requirements, passage obstacles, or habitat limitations similar to those experienced by anadromous fish returning to the Snake River system. Thus, if kokanee were responsible for post-Sunbeam Dam anadromous *O. nerka* in Redfish Lake, it would be an unprecedented occurrence for the species (Waples *et al.* 1991).

Considering evidence that sockeye salmon continued to pass Sunbeam Dam prior to its removal, available genetic information, and given the uncertainty regarding the ability of Redfish Lake kokanee to produce anadromous *O. nerka* in the numbers observed, NMFS is proceeding on the premise that the original sockeye salmon gene pool still exists in Redfish Lake and is distinct from the kokanee (Waples *et al.* 1991).

Available information indicates that Snake River sockeye salmon are also reproductively isolated from other sockeye salmon populations and represent an important component in the evolutionary legacy of the species. The great distance (over 700 river miles (1,127 kilometers)) separating Redfish Lake from the nearest sockeye salmon populations in the upper Columbia River ensures a strong degree of reproductive isolation. There is no evidence of straying of sockeye salmon from the

upper Columbia River or elsewhere into Redfish Lake (Waples *et al.* 1991).

Redfish Lake supports the world's southernmost natural sockeye salmon population. Sockeye salmon returning to Redfish Lake also travel a greater distance from the sea (almost 900 miles (1,448 kilometers)) and to a higher elevation (6,500 feet (1,219 meters)) than do sockeye salmon anywhere else in the world. In contrast, sockeye salmon in the upper Columbia Basin spawn at elevations more than 4,000 feet (1,219 meters) lower. Furthermore, the upper Columbia River populations are in a different ecoregion domain (humid temperate) than is Redfish Lake (dry) (Waples *et al.* 1991). Collectively, these data argue strongly for the ecological uniqueness (with respect to sockeye salmon) of the Snake River habitat and make it likely that the Redfish Lake population contains unique adaptive genetic characteristics.

Electrophoretic studies of sockeye salmon throughout North America and Asia typically have found substantial genetic differences between sockeye salmon stocks from different river systems (e.g., Utter *et al.* 1984; Foote *et al.* 1989; Monan 1991). Furthermore, a recent study (Monan 1991) demonstrated that samples of kokanee from Redfish and Alturas Lakes are genetically similar to each other but quite distinct from samples from other lakes in Idaho, Washington, and British Columbia. Although specific data are not available for Redfish Lake sockeye salmon, these results suggest that this population is probably genetically distinct from other sockeye salmon populations.

NMFS concludes that the best available information indicates that this population meets both of the criteria necessary to be considered an ESU. Therefore, NMFS has determined that the Snake River sockeye salmon is a "species" under the ESA.

Status of the Snake River Sockeye Salmon

Historically, sockeye salmon were produced in Idaho in the Stanley Basin of the Salmon River in Alturas, Pettit, Redfish, Yellowbelly and Stanley Lakes and may have been present in one or two other Stanley Basin lakes (Bjornn *et al.* 1968). Welsh *et al.* (1965) also included Little Redfish Lake, on Redfish Creek downstream from Redfish Lake, as sockeye salmon habitat. Outside of the Salmon River Basin, but within the Snake River Basin, sockeye salmon were produced in Big Payette Lake on the North Fork Payette River and in Wallowa Lake on the Wallowa River (Evermann 1895; Toner 1960; Bjornn *et al.* 1968; Fulton 1970).

In 1881, 2,600 pounds (1,180 kilograms) of fresh sockeye salmon were taken by prospectors at Alturas Lake, near Redfish Lake in the Stanley Basin (Evermann 1896). Agricultural diversions of water from Alturas Lake Creek currently prevent adult sockeye salmon from migrating upstream, precluding production in Alturas Lake. Treatment with piscicides (chemicals used to kill fish) in 1961 and 1962 and the construction of migration barriers to prevent the immigration of warmwater fish species precluded sockeye salmon production in Pettit, Stanley and Yellowbelly Lakes.

There is no reliable information on the numbers of sockeye salmon spawning in Redfish Lake in the early 1900s (Bjornn *et al.* 1968). However, Evermann (1895, 1896) reported that there were plans to build a cannery there.

Construction of Sunbeam Dam in 1910, 20 miles (32.2 kilometers) downstream from Redfish Lake Creek on the mainstream Salmon River, seriously impeded sockeye salmon access to the Stanley Basin lakes. The original adult fishway was constructed with wood and was ineffective in passing fish over the dam (Kendall 1912; Gowen 1914). It was replaced in 1920 with a concrete adult fishway that successfully passed sockeye salmon during at least 1 year.

There is a difference of opinion regarding the effects of Sunbeam Dam on the original sockeye salmon run to lakes in the Stanley Basin. Some argue that the dam represented a complete barrier to upstream passage for enough years that the original anadromous run was eliminated (Chapman *et al.* 1990). On the other hand, eyewitness accounts (Jones 1991) document adult sockeye salmon spawning in Redfish Lake in a number of years prior to and immediately after partial removal of the dam in 1934. Subsequently, Parkhurst (1950) reported sockeye salmon spawning in the lake in 1942.

Escapement of sockeye salmon to the Snake River has declined dramatically in recent years. Counts made at Lower Granite Dam (the first dam on the Snake River downstream from the confluence of the Salmon River) have ranged from 531 in 1976 to zero in 1990. It should be noted that the number of fish counted at a dam may differ from the number actually passing; some fish may pass during non-counting periods or may pass through navigation locks. Records are available on escapement into Redfish Lake for the years 1954 through 1966 and from 1985 through 1987. During these years, the Idaho Department of Fish and Game (IDFG) enumerated adult sockeye salmon at a weir in Redfish Lake Creek. In the years from 1954 through 1966, the

number of adults counted by IDFG varied from 4,361 and 1955, to 11 in 1961, to 335 in 1964. In the years 1985 through 1987, IDFG operated a temporary weir in Redfish Lake Creek. The total escapement in these years was 12 in 1985, 29 in 1986, and 16 in 1987. In 1988, IDFG also conducted spawning-ground surveys in Redfish Lake and identified four adults and two redds (gravel mounds in which the eggs are deposited). In 1989, observations in Redfish Lake included one adult sockeye, one redd and a second potential redd. No redds or adults were observed in 1990.

During the spring of 1991, a fraction of the juvenile *O. nerka* outmigrants from Redfish and Alturas Lakes were collected and transported to Eagle Hatchery, Eagle, Idaho, to provide a potential source of broodstock for future sockeye production. Four adults (three males and one female) returned to Redfish Lake in 1991 and were captured and held in special facilities at Sawtooth Hatchery near Redfish Lake. These fish were successfully spawned and the resulting progeny will be used to maximize sockeye production.

Summary of Factors Affecting the Species

The ESA requires a determination of whether a species is threatened or endangered because of any of the five factors identified in section 4(a)(1). This determination is based on the "Summary of Factors Affecting the Species" section in the proposed rule and on comments received on the proposed rule. A brief description of these factors follows.

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

Hydropower development has resulted in blockage of habitat, turbine-related mortality of juvenile fish, increased delay of juvenile migration through the Snake and Columbia Rivers, increased predation on juvenile salmon due to residualism in reservoirs and increased predator populations due to ideal foraging areas created by impoundments, and increased delay of adults on their way to spawning grounds. Water withdrawal and storage and irrigation diversions and blockage of habitat for purposes such as agriculture have also contributed to the destruction of Snake River sockeye salmon habitat.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Data specific to the exploitation of Snake River sockeye salmon are limited, but available information indicates that commercial fisheries in the lower Columbia River, and harvest on the spawning grounds, were primary factors in the decline of Snake River sockeye salmon (Fulton 1970).

The recreational harvest of sockeye salmon in the Columbia River is negligible (Washington Dept. of Fisheries and Oregon Dept. of Fish and Wildlife 1990). There is no information available to indicate that ocean harvest of Columbia River (including Snake River) sockeye salmon is significant.

C. Disease or Predation

Sockeye salmon are exposed to numerous bacterial, protozoan, viral, and parasitic organisms in spawning and rearing areas, migratory routes, and the marine environment. Even though *O. nerka* is susceptible to these, their effect on Snake River sockeye salmon is not documented.

Predators, particularly northern squawfish, *Ptychocheilus oregonensis*, and avian predator populations have increased due to hydroelectric development that created impoundments providing ideal foraging areas. Turbulent conditions in turbines, dam bypasses, and spillways have increased predator success by stunning or disorienting passing juvenile salmon migrants.

Marine mammal numbers, especially harbor seals and California sea lions, are increasing on the West Coast and increases in predation by pinnipeds have been noted in all Northwest salmonid fisheries. However, the extent to which predation is a factor causing the decline of Snake River sockeye salmon is unknown.

D. Inadequacy of Existing Regulatory Mechanisms

A wide variety of Federal and state laws and programs have affected the abundance and survival of anadromous fish populations in the Columbia River. These regulatory mechanisms have not prevented the decline of Snake River sockeye salmon.

E. Other Natural and Manmade Factors

1. Natural Factors. Drought is the principal natural condition that may have contributed to reduced Snake River sockeye salmon production. Annual mean streamflows for the 1977 water year were generally the lowest recorded for many streams since the late

nineteenth century (Columbia River Water Management Group 1978). The 1990 water year became the fourth consecutive year of drought conditions in the Snake River Basin (Columbia River Water Management Group—in press).

2. Manmade Factors. There is no direct evidence that artificially propagated fish have compromised the genetic integrity of Stanley Basin sockeye salmon. Supplementation of kokanee salmon occurred sporadically, beginning early in this century. In most cases, the origin of the donor stocks is unknown (Bowler 1990). Preliminary electrophoretic analyses of 19 different sockeye and kokanee salmon samples from Idaho, Washington, and British Columbia (these include the most likely sources for donor stocks) indicated that Redfish and Alturas Lake kokanee populations are genetically different from the other populations sampled. Adult salmon returning to Redfish Lake were unavailable for sampling. Artificial production of other species may have an adverse impact on Snake River sockeye salmon as they jointly migrate through the rivers, estuary and ocean, and may compete with sockeye salmon for food.

Determination

Based on its assessment of available scientific and commercial information, NMFS is issuing a final determination that the Snake River sockeye salmon (*Oncorhynchus nerka*) is a "species" under the ESA and should be listed as endangered under the ESA.

Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the ESA include recognition, prohibitions on taking, recovery actions, and Federal agency consultation requirements. Recognition through listing promotes conservation actions by Federal and state agencies and private groups and individuals.

For listed species, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or conduct are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may adversely affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with NMFS.

Examples of Federal actions most likely to affect Snake River sockeye salmon include authorized purposes of mainstem Columbia and Snake Rivers hydroelectric and storage projects. Such authorized purposes include hydroelectric power generation, flood

control, irrigation, and navigation. Federal actions including COE section 404 permitting activities under the Clean Water Act, COE section 10 permitting activities under the Rivers and Harbors Act, and FERC licenses for non-Federal development and operation of hydropower may also be affected.

Critical Habitat

NMFS has completed its analysis of the biological status of sockeye salmon in the Snake River but has not completed the analysis necessary for the designation of critical habitat. NMFS has decided to proceed with the final listing determination now and to proceed with the designation of critical habitat in separate rulemaking. NMFS believes that this action is consistent with the intent of the 1982 amendments to the ESA: "The Committee feels strongly, however, that, where the biology relating to the status of the species is clear, it should not be denied the protection of the Act because of the inability of the Secretary to complete the work necessary to designate critical habitat." H. Rep. No. 567, 97th Cong., 2d Sess. 19 (1982).

NMFS has determined that final listing is appropriate and necessary to the conservation of Snake River sockeye salmon. The prompt listing will bring the protections of the ESA into force, including the requirement that all Federal agencies consult with NMFS to ensure their actions are not likely to jeopardize the continued existence of the species. Prompt listing will assure that Federal agencies whose activities may affect the species will consult with NMFS under section 7(a)(2) of the ESA during their planning for 1992 operations and activities. For example, the Corps of Engineers is currently analyzing potential options for 1992 to improve river flows for salmon and the Bonneville Power Administration is preparing a review of Columbia and Snake River hydropower operation. Listing now will thus promote timely and effective consideration of measures to conserve Snake River sockeye salmon.

Furthermore, NMFS has concluded that critical habitat is not determinable at this time because information sufficient to perform the required analysis of the impacts of the designation is lacking. Designation of critical habitat requires a determination of those physical and biological features that are essential to the conservation of the species and which may require special management considerations or protection. NMFS has been reviewing scientific and biological information

concerning the habitat requirements of Snake River sockeye salmon and has been identifying activities that may adversely impact the habitat. This will take additional time because many Federal and State agencies are involved in the management of fish and wildlife habitat in the Columbia River system. Further, management considerations and protection for sockeye salmon are complicated by the possibility that these measures, if developed in isolation, may not be appropriate for other Snake River salmon species. Thus, NMFS is planning to propose concurrently critical habitat determinations for all petitioned Snake River salmon stocks. In addition, designation of critical habitat requires the consideration of economic information. NMFS is in the process of gathering, and analyzing the economic information needed for the designation (see notices requesting information on critical habitat published in the *Federal Register* on October 15, 1991; 56 FR 51684).

Classification

The 1982 amendments to the ESA (Pub. L. 97-304) in section 4(b)(1)(A), restricted the formation that may be considered when assessing species for listing. Based on this limitation of criteria for a listing decision and the

opinion in *Pacific Legal Foundation v. Andrus*, 657 F.2d 829 (6th Cir., 1981), NMFS has categorically excluded all endangered species listings from environmental assessment requirements of the National Environmental Policy Act (48 FR 4413, February 6, 1984).

The Conference Report on the 1982 amendments to the ESA notes that economic considerations have no relevance to determinations regarding the status of species, and that E.O. 12291 economic analysis requirements, the Regulatory Flexibility Act, and the Paperwork Reduction Act are not applicable to the listing process. Similarly, listing actions are not subject to the requirements of E.O. 12612.

References

The complete citations for the references used in this document can be found in the Proposed Endangered Status for Snake River Sockeye Salmon (56 FR 14055; April 5, 1991) or one of the following:

Schiewe, M.H. 1991. Genetic Studies of Redfish Lake Outmigrants *Oncorhynchus nerka*. Memorandum to Rolland Schmitt and Richard Berry dated July 19, 1991.

Waples, R.S. In press. Pacific Salmon and the definition of "Species" under the Endangered Species Act. Marine Fisheries Review.

Waples, R.S., O.W. Johnson, and R.P. Jones, Jr. 1991. Status Review Report for Snake

River Sockeye Salmon. U.S. Dep. Commer., NOAA Tech. Memo. NMFS F/NWC-195.

List of Subjects in 50 CFR Part 222

Administrative practice and procedure, Endangered and threatened wildlife, Exports, Fish, Imports, Marine mammals, Reporting and recordkeeping requirements, Transportation.

Dated: November 14, 1991.

William W. Fox, Jr.,

Assistant Administrator for Fisheries.

For the reasons set out in the preamble, 50 CFR part 222 is amended as follows:

PART 222—ENDANGERED FISH OR WILDLIFE

1. The authority citation for part 222 continues to read as follows:

Authority: 16 U.S.C. 1531 *et seq.*

§ 222.23 [Amended]

2. In § 222.23, paragraph (a) is amended by adding the phrase "Snake River sockeye salmon (*Oncorhynchus nerka*);" immediately after the phrase "Totoaba (*Cynoscion macdonaldi*);" in the second sentence.

[FR Doc. 91-27818 Filed 11-14-91; 4:02 pm]

BILLING CODE 3510-22-M

Federal Register

Wednesday
November 20, 1991

Part III

Department of Labor

Employment Standards Administration,
Wage and Hour Division

29 CFR Part 570

Occupations Particularly Hazardous for the
Employment of Minors Between 16 and
18 Years of Age, or Detrimental to Their
Health or Well-Being; Final Rule

DEPARTMENT OF LABOR

Employment Standards
Administration, Wage and Hour
Division29 CFR Part 570, Subpart E—
OccupationsParticularly Hazardous for the
Employment of Minors Between 16
and 18 Years of Age, or Detrimental to
Their Health or Well-Being

AGENCY: Wage and Hour Division,
Employment Standards Administration,
Labor.

ACTION: Final rule.

SUMMARY: This document provides changes to three hazardous Occupations Orders (HOs), issued pursuant to section 3(1) of the Fair Labor Standards Act (hereafter, "FLSA" or "Act"), which prohibit the employment of minors under 18 years of age in occupations declared by the Secretary of Labor to be particularly hazardous for such minors, or detrimental to their health or well-being. The affected HOs are those related to the operation of a motor vehicle (HO 2), the use of power-driven meat processing equipment (HO 10), and the operation of paper-products machines (HO 12).

The changes to the HOs: (1) Eliminate exemption procedures contained in HO 2 which have allowed the employment of minors under 18 years of age as school bus drivers; (2) clarify that restaurants, fast-food establishments, and other retail establishments are subject to HO 10 prohibiting minors under the age of 18 from using power-driven meat processing equipment; (3) specifically provide that power-driven meat slicers are meat processing equipment within the meaning of the HO 10 prohibitions; and (4) amend HO 12 to expressly prohibit minors under the age of 18 from using power-driven paper machinery in the processing of paper, irrespective of the intended use of the processed paper.

EFFECTIVE DATE: The rule is effective December 20, 1991.

FOR FURTHER INFORMATION CONTACT: J. Dean Speer, Director, Division of Policy and Analysis, Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, room S-3506, 200 Constitution Avenue NW., Washington, DC 20210, (202) 523-8412. This is not a toll-free number.

SUPPLEMENTARY INFORMATION:

I. Background

Sections 3(1) and 12 of the FLSA authorize the Department of Labor to regulate youth employment to ensure that it does not interfere with the schooling, health, or well-being of minors.

Section 3(1) of the FLSA provides a minimum age of 18 years of any nonagricultural occupations which the Secretary of Labor finds to be particularly hazardous for minors 16 and 17 years of age, or detrimental to their health and well-being. The seventeen nonagricultural HOs are contained in 29 CFR Part 570, subpart E.

These revisions to three of the HOs are clarifying modifications that incorporate Departmental regulatory and enforcement policy. The final rule makes only minor revisions to the proposed rule which was published in the *Federal Register* on October 23, 1990 (55 FR 42812).

These changes were recommended by the Child Labor Advisory Committee, which the Department established in August 1987 to provide advice and technical expertise in the development of possible proposals to change the existing child labor standards. The Committee consisted of 21 members, representing employers, education, labor, child guidance professionals, civic groups, child advocacy groups, State officials, and safety groups.

II. Paperwork Reduction Act

These rules contain no reporting or recordkeeping requirements subject to the Paperwork Reduction Act. The general FLSA information collection requirements have been approved by the Office of Management and Budget under the control number 1215-0017.

III. Summary of Comments

*HO 2—Occupations of Motor Vehicle
Driver and Outside Helper, 29 CFR
570.52*

HO 2 contains the finding that employment as a motor vehicle driver or as an outside helper on a motor vehicle is particularly hazardous for minors under the age of 18. The Department proposed a revision to HO 2 to eliminate an exception under which States could request that 16- and 17-year-old youths be permitted to drive school buses. (See 55 FR 42812, October 12, 1990.) Under this exception, the Secretary could grant an exemption for 16- and 17-year-old youths to drive school buses on the basis of the Secretary's approval of an application filed by the Governor of the State in which the vehicle is registered.

Almost all States already prohibit minors from operating school buses,

and, in recent years, the Department has been phasing-out the application of this exemption. In proposing to eliminate the exemption, the Department indicated that this change essentially would bring the regulations into conformance with current practice.

As indicated in the October 23, 1990 proposal, when public employees first were brought under coverage of the FLSA by the 1966 Amendments, such employees also became subject to the FLSA's child labor provisions and regulations. A number of States that had been using youths under 18 years of age to drive school buses prior to 1966 appealed to the Secretary for permission to continue that practice. After completion of a study and a public hearing, it was determined at that time that school bus driving was not particularly hazardous for 16- and 17-year-old minors who were carefully selected, trained, and supervised.

In 1968, an amendment to HO 2 was adopted allowing State Governors to apply annually to the Secretary of Labor for authorization to employ 16- and 17-year-old youths to drive school buses in their States. Fourteen States initially applied for the exemption to continue their practice of employing minors under age 18 to drive school buses.

In reviewing requests of Governors to use minors under age 18 to drive school buses, the Secretary weighed their compliance with eleven criteria set forth in the prior rule concerning selection, training, and supervision of the minors employed.

By 1986, through actions of State Departments of Education or laws passed by State legislatures, only nine State Governors requested approval to use 16- and 17-year-old youths to drive school buses. In 1987, applications were received from six State Governors for such approval. In the last two years, however, only the State of Wyoming requested and received approval, and the exemption was requested for and applied to only school District #1, in Washakie County.

Over the years, the concern of the Department of Labor became heightened by an increasing number of school bus accidents involving 16- and 17-year-old drivers where school children were killed or seriously injured.

In a 1982 report, entitled "The 16/17 Year Old School Bus Driver," the Office of Driver and Pedestrian Safety of the National Highway Traffic Safety Administration (NHTSA) concluded that 16- and 17-year-old school bus drivers were overrepresented in school bus accidents. The NHTSA study covered a ten-year period (1969-1979) and the

twelve States that employed school bus drivers under age 18. The study found that on the average 16- and 17-year-old drivers had more accidents per million miles than drivers aged 18 and over. (Sixteen and 17-year-olds accounted for .181 accidents per driver and 22.61 accidents per million miles. Drivers aged 18 and over averaged .093 accidents per driver and 11.60 accidents per million miles.)

In addition, the Fatal Accident Reporting System (FARS) data for 1979 indicated that 16- and 17-year-olds were involved in 8.9% of all fatal school bus accidents, even though they comprised only 2.7% of all school bus drivers in the nation that year.

Following a serious school bus accident in 1985 involving a 17-year-old driver, the National Transportation Safety Board (NTSB) studied the accident rates of 16- and 17-year-old school bus drivers for three school years (1982-83 through 1984-85) for the State in which the accident occurred. The study showed that accident rates for 16- and 17-year-old drivers were significantly higher than those for older school bus drivers. The accident rate per million miles for 16- and 17-year-old drivers was 12.7 for 1982-83, 14.0 for 1983-84, and 13.2 for 1984-85. The accident rate per million miles for 18-year-old and older drivers was 8.1, 10.0, and 9.2, respectively. The NTSB recommended that the three States with the highest accident rates involving 16- and 17-year-olds discontinue the practice of hiring 16- and 17-year-olds to drive school buses.

At its meeting in March 1988, the Child Labor Advisory Committee recommended that there be no exemption from HO 2 to allow school bus driving by 16- and 17-year-olds. The Committee reviewed the States' accident and injury data, the report and recommendations of the NTSB, and other data on the factors attributed to the causes of some of the more serious accidents.

The Committee's rationale was that minors who drive school buses are subject to the following hazards: (1) Minors have difficulty maintaining discipline on school buses due to peer pressure; (2) driving a school bus is a serious responsibility; and (3) 16- and 17-year-old drivers lack experience and maturity, and have poorer judgment than adults.

The Department reviewed the same data utilized by the Committee and also concluded that the occupation of motor vehicle operator is too hazardous for 16- and 17-year-old youths. In comparison to adult drivers, 16- and 17-year-old

minors generally have more accidents per million miles and per driver.

Accordingly, in the October 23, 1990 notice, the Department proposed to eliminate the procedures for States to obtain an exemption from HO 2 for school bus drivers.

A total of 12 comments were received on the proposal. Those in favor of the proposal were the National PTA Health and Welfare Commission; the National Consumers League; the Child Labor Coalition; the Food and Allied Service Trades Department, AFL-CIO; the Economic Research Department, AFL-CIO; People Against Dangerous Delivery; and the National Education Association.

Those opposed to the proposal were U.S. Senator Malcolm Wallop; the mayor of the city of Worland, Wyoming; the Washakie, Wyoming County Commissioners; the Admiral Beverage Corporation of Worland, Wyoming; the Stockgrowers State Bank of Worland, Wyoming; and the Washakie, Wyoming County School District #1.

Those in favor of the proposal commented: (1) That youths are involved in more accidents than their adult counterparts, (2) that it is unfortunate that the exemption was ever permitted and that it took accidents with serious injury to change the policy, and (3) that young bus drivers expose themselves and their passengers to peril due to difficulties in maintaining discipline.

In addition, several commenters noted that the Child Labor Advisory Committee had recommended other changes to HO 2—such as modifications to the exemption for incidental and occasional driving—and suggested including these additional changes with those in the proposal.

Those opposed to the proposal argued that the problems experienced in some States using 16 and 17-year old drivers had not occurred in Washakie County. They stated that the Washakie County Student Bus Driver Program had been in place since 1920 and that there had never been a fatality or serious injury in its history. These commenters indicated that the county has a rigorous selection and training process which includes the following elements:

1. Screening of students' school records and recommendations;
2. Completion of 8 hours of classroom training in discipline, communication, defensive driving, and first aid and CPR;
3. Completion of a physical exam;
4. Maintenance by the student of a driving record with no traffic citations; and

5. Semi-monthly observation by an adult on board the bus while the student drives his or her route.

Many of these commenters indicated that the program teaches the students responsibility and pride. They suggested that instead of eliminating the exemption, the Department should establish guidelines to insure that drivers are properly trained and capable of performing the work.

After reviewing and considering the comments submitted, the Department decided to adopt the proposed change. The exemption for school bus drivers has resulted in accidents and serious injuries to minors. At the same time, the Washakie County driving program has a good record, and the Department seeks to minimize the impact of this change. Therefore, the final rule includes a provision which will permit the State of Wyoming to continue to apply for the exemption for the one school district that has utilized the exemption in recent school years (Washakie, County School District #1) through the 1995-1996 school year, provided the district meets the conditions under the previous rule. Thus, the exemption will be phased out completely in 1996.

Finally, with respect to the additional changes to HO 2 recommended by the Child Labor Advisory Committee (which were noted by several commenters), the Department believes that if any such changes are appropriate, they should be made the subject of a separate rulemaking.

HO 10—Occupations Involving Slaughtering, Meat Packing or Processing, or Rendering, 29 CFR 570.61

HO 10, among other things, prohibits the employment of 16- and 17-year-old minors in certain occupations in or about slaughtering and meat packing establishments and rendering plants, and wholesale, retail or service establishments, including the operation or feeding, setting up, adjusting, repairing, oiling, or cleaning of specific power-driven meat-processing machines.

As indicated in the October 23, 1990 proposal, HO 10 applied in its original form to occupations in the slaughtering and meat packing industries. When the Congress amended the FLSA in 1961 to cover certain retail and service enterprises, the Department amended HO 10 to include such firms. Since then, the Department has consistently applied this HO to restaurants and fast-food establishments. Over the past few years, however, there have been several decisions by Administrative Law Judges concerning the application of HO 10 to

restaurants and fast-food establishments holding that the language of the HO in the prior rule did not apply to such establishments. On the other hand, a number of decisions by Administrative Law Judges and a federal district court decision have upheld the Department's position. The Department requested that the Child Labor Advisory Committee also review this issue.

After reviewing the regulations, relevant case law, and other pertinent background information, the Committee recommended that HO 10 be modified to clarify that restaurants and fast-food establishments are included within the HO's definition of wholesale and retail or service establishments. The Department subsequently decided to propose revisions to HO 10 to clarify that restaurants and fast-food establishments, as well as all other retail or service establishments, are subject to this Hazardous Occupations Order.

Additionally, although not specifically named in the prior HO, the Department has consistently interpreted the HO 10 prohibition against the use of power-driven knives as applying to meat slicers. The Committee also was asked to review this matter and subsequently recommended that the Department codify this interpretation by specifically listing power-driven meat slicers. The proposed rule reflected this change.

The October 23, 1990 proposal also solicited comments and data on the safety of meat slicers used in food service establishments. Commenters were requested to address injury rates, types of injuries, types of machines, and circumstances surrounding injuries by meat slicers used in food service establishments. Information was also requested on the safety-related design and guarding of such machines used in these establishments. Stratification of these data by age was encouraged, although the proposal stated that data on the safety of the machines for all employees would also be useful. The proposal indicated that information received would be analyzed to determine whether the final HO 10 should specifically include meat slicers, exclude meat slicers, or include meat slicers while further study is undertaken.

A total of 10 comments were received on the proposal to amend HO 10. Those in favor of the proposal were the National PTA Health and Welfare Commission; the National Consumers League; the Child Labor Coalition; the Food and Allied Service Trades Department, AFL-CIO; the Economic Research Department, AFL-CIO; the

National Education Association; and the Secretary of Labor for the State of Delaware. Those opposed to the proposal were the Foodservice and Lodging Institute, the National Grocers Association, and the National Restaurant Association.

Those in favor of the proposal stated that it is the machine that should be regulated, not the workplace where it is operated or the type of product being processed. Several commented that the proposal would merely eliminate any doubt about the interpretation of the HO. The Delaware Secretary of Labor stated that injuries by the use of meat slicers represent 10 percent of all compensable injuries to minors in the State (i.e., injuries resulting in four or more work days lost). Some commented that increasing numbers of students are employed by fast-food restaurants and delicatessens and more minors are being allowed to operate meat slicers. One commenter noted that recent Congressional hearings featured victims who had lost fingers as a result of accidents with meat slicers in restaurants and fast-food establishments.

Several of these commenters suggested that other changes to HO 10 recommended by the Child Labor Advisory Committee be incorporated into the final rule, such as expanding the prohibition to cover additional types of food processing equipment.

Those opposed to the proposal commented that the modifications are overly broad and unnecessary. They stated that HO 10 when it was promulgated in 1952 covered only slaughtering and packing establishments and rendering operations, and that the prohibitions today cover only occupations involving such activities. They commented that numerous decisions by Administrative Law Judges have held that HO 10 does not apply to restaurant establishments. They also argued that the Department has not met the regulatory requirement to conduct an investigation to determine whether the use of meat slicers in retail food stores, restaurants, and delicatessens is particularly hazardous to 16 and 17-year olds. In addition, one commenter suggested that the Department should apply the new rule only prospectively.

As noted above, when the Congress amended the FLSA in 1961 to cover certain retail and service enterprises, the Department amended HO 10 to include such firms. Also, as noted above, a number of decisions by Administrative Law Judges and a federal district court decision have upheld the Department's position. The Department has consistently applied HO

10 to operation of meat slicers in restaurants and fast-food establishments. However, because of conflicting decisions construing the provision, the Department concluded that it was appropriate to amend HO 10 to make its application to operation of meat slicers in such establishments explicit.

With respect to the comment concerning the need for an investigation, the changes to HO 10 are merely clarifying revisions to reflect interpretations of the existing regulations. Also, there is no reason to apply the rule only prospectively because these clarifying revisions do not change the Department's existing interpretations or practices.

These commenters further stated that the operation of meat slicers in restaurants, fast-food establishments, and grocery stores is safe, provided the workers are adequately trained and supervised. They urged that the Department not assert violations where such training and supervision is in place. In this regard, a number of the HOs, including HO 10, already contain exemptions for 16 and 17-year-old apprentices and student-learners. Alternatively, one commenter suggested that the Department establish one or more independent safety panels, comprised of safety experts to collect data on injuries and information about the causes of such injuries, conduct research and investigations of the equipment covered by HO 10, and establish safety standards for the use of such equipment by minors. These commenters also indicated that modern meat slicing machines have numerous safety features, such as fully automated modes of operation, special blade guards to prevent injury during operation, and ring guards to prevent injury during cleaning.

One commenter questioned the rationale for permitting an exemption for certain types of bacon slicers which, it indicated, are much more complex and dangerous in terms of moving parts, size, and potential for hazardous incidents than meat slicers used in retail establishments. In this regard, bacon-slicing machines are outside the scope of this rulemaking which is limited to clarifications that reflect Departmental regulatory and enforcement policy. Therefore, if any change is appropriate for bacon slicers, it must be the subject of a separate rulemaking.

Another commenter questioned why the regulations permit student learners and apprentices to operate meat slicers during their training period but does not permit them to do so once the training

program is completed. However, the regulations do permit the employment of a high school graduate in an occupation in which training has been completed as a student-learner even though the youth is not yet 18 years of age.

The National Grocers Association furnished their own analysis of data which had been reviewed by the Child Labor Advisory Committee on injuries to minors as reported by field staff of the Wage and Hour Division. (The data involved reports of injuries to 23 minors age 16 and 17 who were injured by meat slicers during the years 1983 to 1987.) The Association argued that the data and information provided are insufficient to warrant amending HO 10 to prohibit the operation of meat slicers by 16- and 17-year olds, particularly in light of the fact that there are 2.3 million 16- and 17-year-olds employed in the retail industry.

The Department's position is not based on conclusions drawn from available statistical evidence as is suggested by the commenter. The Department has made its position clear. As indicated in the preamble to the proposed rule, the use of meat slicers in restaurants, grocery stores and fast-food establishments has been prohibited by this HO since it was amended in the early 1960's to coincide with the application of enterprise coverage to retail and service establishments. The proposed clarification merely serves to eliminate any doubts about the application of the HO to the entire retail sector and specifically about the application of the HO to meat slicers in such establishments.

In this regard, the preamble to the proposed rule did request commenters to furnish data on injuries caused by power-driven meat slicers. The Department intended that if data were received which established that the machines are not particularly hazardous for 16- and 17-year-olds, the HO would be revised to exclude meat slicers from the HO in the future. The Department intended that if data were received which raised serious doubts but was not conclusive, the HO would continue to include meat slicers while the issue was studied.

None of the commenters submitted any statistical data to support their contentions. As noted above, the National Grocers Association furnished an analysis of data that had been considered by the Child Labor Advisory Committee during the course of their HO review. While data on injuries to minors uncovered during child labor investigations is helpful to the process of HO evaluation, the data before the Advisory Committee does not constitute

any type of comprehensive data base. In fact, the lack of comprehensive statistics on injured minors in the workplace is a major concern of the Department and the development of reliable youth injury statistics is among the assignments of a special Child Labor Task Force established by the Department. This task force has, for example, been exploring the possibility of enhancing the information reported by the Bureau of Labor Statistics under their Supplemental Data System (SDS) which collects some data on youths who have filed workers' compensation claims in 24 participating States. A review of the data that is available, however, does indicate a high incidence of accidents involving youths using power driven meat slicers in retail settings. Accordingly, after review of all of the comments received, the Department has decided to adopt the proposed rule as a final rule.

In addition, as suggested in several comments in favor of the proposal, the final rule includes specific examples of non-meat products (such as vegetables, cheese and bread) which are sometimes sliced with meat slicers, and therefore are within the prohibition of HO 10.

Finally, with respect to additional changes to HO 10 recommended by the Child Labor Advisory Committee (which were noted by several commenters), the Department believes that if any such changes are appropriate, they should be made the subject of a separate rulemaking.

HO 12—Occupations Involved in the Operation of Paper-Products Machines, 29 CFR 570.63

In the October 23, 1990 Federal Register notice, the Department proposed to revise HO 12 to clarify that it applies to operation of power-driven paper machines to convert paper into waste paper, in addition to the use of such equipment in the remanufacture of paper or pulp. Since the intent of the HO is to prevent injury, the Department has maintained that the location of a machine or its specific use should not be a determining factor in applying the prohibitions of the HO. The Child Labor Advisory Committee recommended that HO 12 be revised to prohibit the operation of all power-driven paper products machines, regardless of the products being manufactured or processed, or the type of establishment in which they are used.

The prior HO 12 defined the term "paper products machine" to include scrap-paper balers and other power-driven machines "used in the remanufacture or conversion of paper or pulp into a finished product." The

Department's experience has shown that scrap-paper balers are used in many grocery and other retail stores and operations to compact empty boxes and other forms of waste paper for the purpose of disposal. In publishing its proposal, the Department stated that the change would clarify the issue regarding the ultimate disposition of the paper and provide a proper focus on the intent of the prohibition, which is to prevent injury to minors based on the potential hazards of operating the equipment.

The preamble to the proposed rule indicated that the change merely would clarify that the use of power-driven paper products machines is within the scope of HO 12, irrespective of the ultimate use of the paper product processed or the type of establishment in which such machines are used.

A total of 8 comments were received on the proposal to amend HO 12. Those in favor of the proposal were the National PTA Health and Welfare Commission; the National Consumers League; the Child Labor Coalition; the Food and Allied Service Trades Department, AFL-CIO; the Economic Research Department, AFL-CIO; and the National Education Association. Those opposed to the proposal were the National Grocers Association and the Food Marketing Institute.

Those in favor of the proposal stated that the use of paper products machinery is dangerous, regardless of the location of the machine (i.e., a retail or manufacturing establishment) and regardless of the end product of the machine. Several of these commenters pointed out that the Child Labor Advisory Committee recommended expanding the HO to include other machinery, such as paper shredders.

Those opposed to the proposal indicated that the rule is overly broad and unnecessary; that paper balers have key locks or other safeguards that preclude operation while the gate is open; and that 16- and 17-year olds should be able to carry boxes to the baler and place them inside, since this is not a dangerous activity. They stated that because of the large quantity of cardboard and paper waste that accumulates in grocery stores, disposal cannot be delegated to just one or two individuals. They indicated that customer and employee safety depends on continuous disposal of this material. One commenter questioned why placing cardboard into a baler is prohibited, but placing cardboard into a trash bin is not, and the rationale for the Department's interpretation that merely placing or tossing cardboard into a baler is prohibited.

These commenters stated that the Department had not done an investigation of the actual operation of paper balers in retail establishments, the safety mechanisms and training methods in use, and the number and kind of injuries. However, because these clarifying revisions merely ensure that the regulation conforms to its intent, prohibiting the operation of paper products machines, regardless of the ultimate disposition of the product, an investigation is unnecessary. One commenter pointed to the exemption for apprentices and student-learners and suggested that similar allowances should be made for on-the-job training. Another commenter suggested that the Department consider alternatives to expansion of the HO, e.g., special training programs or application of the prohibition only to certain steps in the process. The regulations already permit training of student-learners and apprentices; any other on-the-job training allowance as suggested is considered unnecessary.

One commenter stated that since almost all stores compact cardboard and paper for re-cycling, rather than for remanufacturing or disposal, the new rule would have little practical effect.

After carefully reviewing the comments, the Department decided to adopt the proposal as a final rule. The Department maintains that the dangers of using paper balers is not dependent on the location of the machine or the ultimate use of the finished product. Furthermore, all the HO's traditionally have been construed broadly to include any assistance in the operation of prohibited machinery, so as to reduce the likelihood that a young person may engage in any dangerous activity (such as taking over for another worker for "just a minute", clearing stuck materials from the equipment, risking injury from being struck by snapping baling wires, etc.). To clarify, however, "assisting to operate" would not include the stacking of cardboard boxes or paper by an employee in adjacent areas in close proximity to a machine subject to this order where the employee does not place the materials into the machine, and the final rule has been revised in this respect. With respect to the use of paper balers for re-cycling purposes, the Department believes such use has always been covered by the HO under the term "remanufacture". However, the final rule expressly includes the term "re-cycling" along with remanufacturing and disposal in the scope of the HO.

Finally, with respect to the additional changes to HO 12 recommended by the Child Labor Advisory Committee (which

were noted by several commenters), the Department believes that if any such changes are appropriate, they should be made the subject of a separate rulemaking.

IV. Executive Order 12291

This rule is not classified as a "major rule" under Executive Order 12291 on Federal Regulations, because it is not likely to result in: (1) An annual effect on the economy of \$100 million or more; (2) a major increase in costs or prices for consumers, individual industries, Federal, State or local government agencies, or geographic regions; or (3) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. Therefore, no regulatory impact analysis is required.

This regulation is a restatement of long standing enforcement and policy positions of the Department. There are a few employers in the retail and service industry who have in the past operated as though they were not subject to the prohibitions clarified by these regulations (e.g., child labor investigations during 1990 disclosed 63 employers in the retail and service industry who were in violation of HO 10, virtually none of which contested the applicability of the HO). This clarifying regulation will eliminate confusion on the part of these employers. Since these employers comprise a small minority, (most employers are complying with the guidelines of the existing regulation), the cost impact of this regulation is considered *de minimis*.

V. Regulatory Flexibility Act

This rule will not have a significant effect on a substantial number of small entities. This conclusion is based on all information presently available to the Department. As indicated in the preamble to the proposed rule (55 FR 42812, October 23, 1990), the Secretary has certified to the Chief Counsel for Advocacy of the Small Business Administration to this effect. As discussed above, the revisions to these three HOs are clarifying modifications that reflect existing Departmental regulatory and enforcement policy.

VI. Document Preparation

This document was prepared under the direction and control of Samuel D. Walker, Acting Administrator, Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor.

List of Subjects in 29 CFR Part 570

Employment, Investigations, Labor, Law enforcement.

Signed at Washington, DC, on this 14th day of November 1991.

Lynn Martin,

Secretary of Labor.

Cari M. Dominguez,

Assistant Secretary for Employment Standards.

Samuel D. Walker,

Acting Administrator, Wage and Hour Division.

For the reasons set out in the preamble, title 29, part 570, subpart E of the Code of Federal Regulations is amended as follows:

PART 570—CHILD LABOR REGULATIONS, ORDERS AND STATEMENTS OF INTERPRETATION

1. The authority citation for part 570 continues to read as follows:

Authority: Secs. 3, 11, 12, 52 Stat. 1060, as amended, 1066, as amended, 1067, as amended; 29 U.S.C. 203, 211, 212.

2. Section 570.52 is revised to read as follows:

§ 570.52 Occupations of motor-vehicle driver and outside helper (Order 2).

(a) *Findings and declaration of fact.* Except as provided in paragraph (b) of this section, the occupations of motor-vehicle driver and outside helper on any public road, highway, in or about any mine (including open pit mine or quarry), place where logging or sawmill operations are in progress, or in any excavation of the type identified in § 570.68(a) are particularly hazardous for the employment of minors between 16 and 18 years of age.

(b)(1) *Exemption—Incidental and occasional driving.* The findings and declaration in paragraph (a) of this section shall not apply to the operation of automobiles or trucks not exceeding 6,000 pounds gross vehicle weight if such driving is restricted to daylight hours; *provided*, such operation is only occasional and incidental to the minor's employment; that the minor holds a State license valid for the type of driving involved in the job performed and has completed a State approved driver education course; and *provided further*, that the vehicle is equipped with a seat belt or similar restraining device for the driver and for each helper, and the employer has instructed each minor that such belts or other devices must be used. This paragraph shall not be applicable to any occupation of motor-vehicle driver which involves the towing of vehicles.

(2) *Special exemption for school bus driving through 1995-1996 school year.* The Secretary of Labor shall have the discretion to grant an exemption from the finding and declaration in paragraph (a) of this section for school bus driving by students on the basis of an application filed and approved by the Governor of the State in which the vehicle is registered, *provided* that such exemption can only be granted to a school district in which student drivers were employed under this exemption during the school years 1989-1990 and 1990-1991. An application for such school district may be filed for each school year up to and including school year 1995-1996, and thereafter school bus driving by students who are minors between 16 and 18 years of age will no longer be permitted. In evaluating the annual application for such exemption, the Secretary will consider the following:

(i) Whether the accident experience of school bus drivers under 18 years of age in the State, if any are employed, compares favorably with that of adult school bus drivers.

(ii) Whether school bus drivers are selected by the school principal and approved by the county superintendent or an official of equivalent responsibility.

(iii) Whether school bus drivers are required to have completed a State approved driver education course, or a special school bus driver training course prior to being allowed to transport passengers.

(iv) Whether training and testing of school bus drivers includes classroom and behind-the-wheel training and is done by qualified officials.

(v) Whether school bus drivers are required to pass a physical examination.

(vi) Whether the operation of school buses is supervised by the school principal, the transportation or other equivalent officer, and State, county, or city police.

(vii) Whether school buses are thoroughly inspected a minimum of four times a year at a State, district, or county inspection station and receive maintenance and repairs at regular intervals to ascertain and insure their safe operating conditions on a continuous basis, and that all inspections, maintenance, and repairs are performed by qualified inspectors and mechanics.

(viii) Whether school bus drivers are provided with and required to use seat belts.

(ix) Whether adequate measures are taken by State and local officials to control the speed of school buses in order to insure that the buses are not

driven at a speed greater than is reasonable and prudent.

(x) Whether adult chaperons, approved by local school authorities, accompany school bus drivers on special activity trips sponsored by the school.

(xi) Whether the school buses conform substantially to the minimum Standards for School Buses, 1964 Revised Edition, recommended by the National Conference on School Transportation and published by the National Education Association.

(xii) Any other factors with the Secretary may find relevant in evaluating the application for exemption.

(c) *Definitions.* For the purpose of this section:

(1) The term *motor vehicle* shall mean any automobile, truck, truck-tractor, trailer, semitrailer, motorcycle, or similar vehicle propelled or drawn by mechanical power and designed for use as a means of transportation but shall not include any vehicle operated exclusively on rails.

(2) The term *driver* shall mean any individual who, in the course of employment, drives a motor vehicle at any time.

(3) The term *outside helper* shall mean any individual, other than a driver, whose work includes riding on a motor vehicle outside the cab for the purpose of assisting in transporting or delivering goods.

(4) The term *gross vehicle weight* includes the truck chassis with lubricants, water and a full tank or tanks of fuel, plus the weight of the cab or driver's compartment, body and special chassis and body equipment, and payload.

3. Section 570.61 is revised to read as follows:

§ 570.61 Occupations in the operation of power-driven meat-processing machines and occupations involving slaughtering, meat packing or processing, or rendering (Order 10).

(a) *Findings and declaration of fact.* The following occupations in or about slaughtering and meat packing establishments, rendering plants, or wholesale, retail or service establishments are particularly hazardous for the employment of minors between 16 and 18 years of age or detrimental to their health or well-being:

(1) All occupations on the killing floor, in curing cellars, and in hide cellars, except the work of messengers, runners, handtruckers, and similar occupations which require entering such workrooms or workplaces infrequently and for short periods of time.

(2) All occupations involved in the recovery of lard and oils, except packaging and shipping of such products and the operation of lard-roll machines.

(3) All occupations involved in tannage or rendering of dead animals, animal offal, animal fats, scrap meats, blood, and bones into stock feeds, tallow, inedible greases, fertilizer ingredients, and similar products.

(4) All occupations involved in the operation or feeding of the following power-driven machines, including setting-up, adjusting, repairing, oiling, or cleaning such machines, regardless of the product being processed by these machines (including, for example, the slicing in a retail delicatessen of meat, poultry, seafood, bread, vegetables, or cheese, etc.): Meat patty forming machines, meat and bone cutting saws, meat slicers, knives (except bacon-slicing machines), headsplitters, and guillotine cutters; snoutpullers and jawpullers; skinning machines; horizontal rotary washing machines; casing-cleaning machines such as crushing, stripping, and finishing machines; grinding, mixing, chopping, and hashing machines; and presses (except belly-rolling machines).

(5) All boning occupations.

(6) All occupations that involve the pushing or dropping of any suspended carcass, half carcass, or quarter carcass.

(7) All occupations involving handlifting or handcarrying any carcass or half carcass of beef, pork, or horse, or any quarter carcass of beef or horse.

(b) *Definitions.* As used in this section:

(1) The term *slaughtering and meat packing establishments* means places in or about which cattle, calves, hogs, sheep, lambs, goats, or horses are killed, butchered, or processed. The term also includes establishments which manufacture or process meat products or sausage casings from such animals.

(2) The term *rendering plants* means establishments engaged in the conversion of dead animals, animal offal, animal fats, scrap meats, blood, and bones into stock feeds, tallow, inedible greases, fertilizer ingredients, and similar products.

(3) The term *killing floor* includes a workroom, workplace where cattle, calves, hogs, sheep, lambs, goats, or horses are immobilized, shackled, or killed, and the carcasses are dressed prior to chilling.

(4) The term *curing cellar* includes a workroom or workplace which is primarily devoted to the preservation and flavoring of meat by curing materials. It does not include a

workroom or workplace solely where meats are smoked.

(5) The term *hide cellar* includes a workroom or workplace where hides are graded, trimmed, salted, and otherwise cured.

(6) The term *boning occupations* means the removal of bones from meat cuts. It does not include work that involves cutting, scraping, or trimming meat from cuts containing bones.

(7) The term *retail/wholesale or service establishments* includes establishments where meat or meat products are processed or handled, such as butcher shops, grocery stores, restaurants/fast-food establishments, hotels, delicatessens, and meat-locker (freezer-locker) companies, and establishments where any food product is prepared or processed for serving to customers using machines prohibited by section (a) of this Order.

(c) *Exemptions.* This section shall not apply to:

(1) The killing and processing of poultry, rabbits, or small game in areas physically separated from the killing floor.

(2) The employment of apprentices or student-learners under the conditions prescribed in § 570.50(b) and (c).

4. Section 570.63 is revised to read as follows:

§ 570.63 Occupations involved in the operation of paper-products machines (Order 12).

(a) *Findings and declaration of fact.* The following occupations are particularly hazardous for the employment of minors between 16 and 18 years of age:

(1) The occupations of operation or assisting to operate any of the following power-driven paper products machines:

(i) Arm-type wire stitcher or stapler, circular or band saw, corner cutter or mitring machine, corrugating and single-or-double-facing machine, envelope die-cutting press, guillotine paper cutter or shear, horizontal bar scorer, laminating or combining machine, sheeting machine, scrap-paper baler, or vertical slotter.

(ii) Platen die-cutting press, platen printing press, or punch press which involves hand feeding of the machine.

(2) The occupations of setting up, adjusting, repairing, oiling, or cleaning these machines including those which do not involve hand feeding.

(b) *Definitions.* (1) The term *operating or assisting to operate* shall mean all work which involves starting or stopping

a machine covered by this section, placing or removing materials into or from the machine, or any other work directly involved in operating the machine. The term does not include the stacking of materials by an employee in an area nearby or adjacent to the machine where such employee does not place the materials into the machine.

(2) The term *paper products machine* shall mean all power-driven machines used in:

(i) The remanufacture or conversion of paper or pulp into a finished product, including the preparation of such materials for re-cycling; or

(ii) The preparation of such materials for disposal. The term applies to such machines whether they are used in establishments that manufacture converted paper or pulp products, or in any other type of manufacturing or nonmanufacturing establishment.

(c) *Exemptions.* This section shall not apply to the employment of apprentices or student-learners under the conditions prescribed in § 570.50 (b) and (c).

[FR Doc. 91-27865 Filed 11-19-91; 8:45 am]

BILLING CODE 4510-27-M