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50 CFR Part 600

Magnuson-Stevens Act Provisions; Annual Catch Limits; National Standard Guidelines; Final Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 600

[Docket No. 070717348–81398–03]

RIN 0648–AV60

Magnuson-Stevens Act Provisions; Annual Catch Limits; National Standard Guidelines

AGENCY: National Marine Fisheries Service (NMFS); National Oceanic and Atmospheric Administration (NOAA); Commerce.

ACTION: Final rule.

SUMMARY: This final action amends the guidelines for National Standard 1 (NS1) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). This action is necessary to provide guidance on how to comply with new annual catch limit (ACL) and accountability measure (AM) requirements for ending overfishing of fisheries managed by Federal fishery management plans (FMPs). It also clarifies the relationship between ACLs, acceptable biological catch (ABC), maximum sustainable yield (MSY), optimum yield (OY), and other applicable reference points. This action is necessary to facilitate compliance with requirements of the Magnuson-Stevens Act to end and prevent overfishing, rebuild overfished stocks and achieve OY.

DATES: Effective February 17, 2009.

ADDRESSES: Copies of the Regulatory Impact Review (RIR)/Regulatory Flexibility Act Analysis (RFAA) can be obtained from Mark R. Millikin, National Marine Fisheries Service, 1315-East-West Highway, Room 13357, Silver Spring, Maryland 20910. The RIR/RFAA document is also available via the internet at *http://www.nmfs.noaa.gov/msa2007/catchlimits.htm*. Public comments that were received can be viewed at the Federal e-Rulemaking portal: *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Mark R. Millikin by phone at 301–713–2341, by FAX at 301–713–1193, or by *e-mail: Mark.Millikin@noaa.gov.*

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I. Overview of Revisions to the NS1 Guidelines

The MSA serves as the chief authority for fisheries management in the U.S. Exclusive Economic Zone (EEZ). The Act provides for ten national standards (NS) for fishery conservation and management, and requires that the Secretary establish advisory guidelines based on the NS to assist in the development of fishery management plans. Guidelines for the NS are codified in subpart D of 50 CFR part 600. NS1 requires that conservation and management measures ''shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.''

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSRA) amended the MSA to include new requirements for annual catch limits (ACLs) and accountability measures (AMs) and other provisions regarding preventing and ending overfishing and rebuilding fisheries. To incorporate these new requirements into current NS1 guidance, NMFS initiated a revision of the NS1 guidelines in 50 CFR 600.310. NMFS published a notice of intent (NOI) to prepare an environmental impact statement (EIS) and commenced a scoping period for this action on February 14, 2007 (72 FR 7016), and proposed NS1 guidelines revisions on June 9, 2008 (73 FR 32526). Further background is provided in the above-referenced **Federal Register** documents and is not repeated here. The proposed guidelines provided a description of the reasons that overfishing is still occurring and the categories of reasons for overfishing likely to be addressed by new MSA requirements combined with the NS1 guidelines. The September 30, 2008 NMFS Quarterly Report on the Status of U.S. Fisheries indicates that 41 stocks managed under Federal FMPs are undergoing overfishing.

NMFS solicited public comment on the proposed NS1 guidelines revisions through September 22, 2008, and during that time, held three public meetings, on July 10, 2008 (Silver Spring, Maryland), July 14, 2008 (Tampa, Florida), and July 24, 2008 (Seattle, Washington), and made presentations on the proposed revisions to each of the eight Regional Fishery Management Councils (Councils). NMFS received over 158,000 comments on all aspects of the proposed NS1 guidelines revisions. Many of the comment letters were form letters or variations on a form letter. In general, the environmental community supported the provisions in the proposed action but commented that they needed to be strengthened in the final action. Alternatively, comments from the fishing industry and some of the Councils said the proposed revisions were confusing, too proscriptive or strict, and lacked sufficient flexibility.

II. Major Components of the Proposed Action

Some of the major items covered in the proposed NS1 guidelines were: (1) A description of the relationship between MSY, OY, overfishing limits (OFL), ABC, ACLs, and annual catch targets (ACT); (2) guidance on how to combine the use of ACLs and AMs for a stock to prevent overfishing when possible, and adjust ACLs and AMs, if an ACL is exceeded; (3) statutory exceptions to requirements for ACLs and AMs and flexibility in application of NS1 guidelines; (4) ''stocks in the fishery'' and ''ecosystem component species'' classifications; (5) replacement of MSY control rules with ABC control rules and replacement of OY control rules with ACT control rules; (6) new requirements for scientific and statistical committees (SSC); (7) explanation of the timeline to prepare new rebuilding plans; (8) revised guidance on how to establish rebuilding time targets; (9) advice on action to take at the end of a rebuilding period if a stock is not yet rebuilt; and (10) exceptions to the requirements to prevent overfishing.

III. Major Changes Made in the Final Action

The main substantive change in the final action pertains to ACTs. NMFS proposed ACT as a required reference point that needed to be included in FMPs. The final action retains the concept of an ACT and an ACT control rule, but does not require them to be included in FMPs. After taking public comment into consideration, NMFS has decided that ACTs are better addressed as AMs. The final guidelines provide that: ''For fisheries without inseason management control to prevent the ACL from being exceeded, AMs should utilize ACTs that are set below ACLs so that catches do not exceed the ACL.''

In response to public comment, this final action also clarifies text on ecosystem component species, OFL, OY specification, ABC control rule and specification, SSC recommendations, the setting of ACLs, sector-ACLs, and AMs, and makes minor clarifications to other text. Apart from these clarifications, the final action retains the same approaches described in the proposed guidelines with regard to: (1) Guidance on how to combine the use of ACLs and AMs for a stock to prevent overfishing when possible, and adjust ACLs and AMs, if an ACL is exceeded; (2) statutory exceptions to requirements for ACLs and AMs and flexibility in application of NS1 guidelines; (3) ''stocks in the fishery'' and ''ecosystem component species'' classifications; (4) new requirements for SSCs; (5) the timeline to prepare new rebuilding plans; (6) rebuilding time targets; (7) advice on action to take at the end of a rebuilding period if a stock is not yet rebuilt; and (8) exceptions to the requirements to prevent overfishing. Further explanation of why changes were or were not made is provided in the ''Response to Comments'' section below. Detail on changes made in the codified text is provided in the ''Changes from Proposed Action'' section.

IV. Overview of the Major Aspects of the Final Action

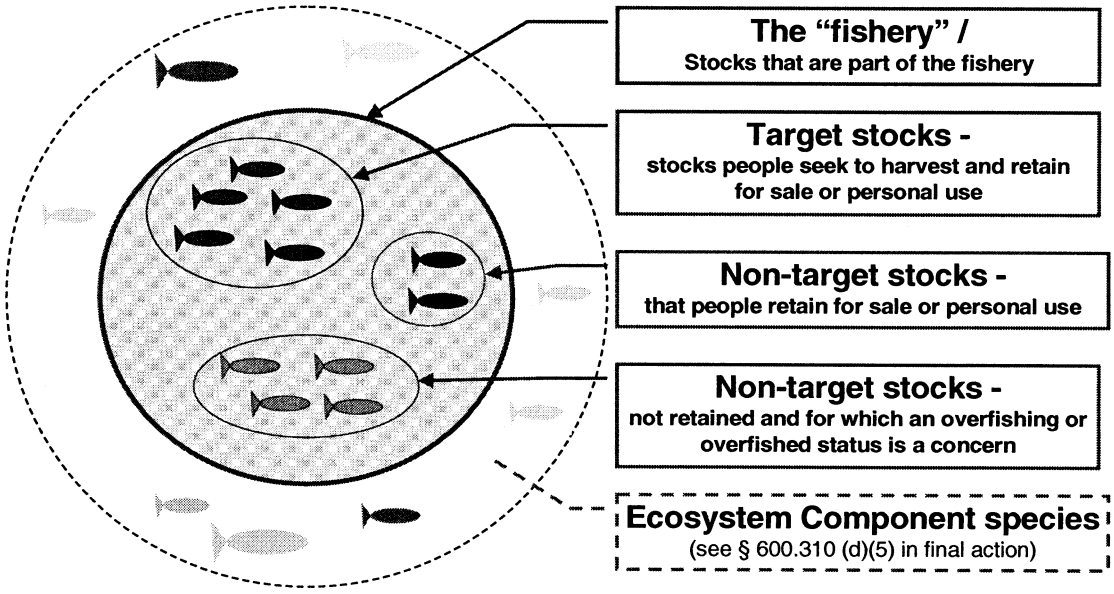
A. Stocks in the Fishery and Ecosystem Component Species

The proposed NS1 guidelines included suggested classifications of ''stocks in the fishery'' and ''ecosystem component (EC) species.'' *See* Figure 1 for diagram of classifications. Public comments reflected confusion about this proposal, so NMFS has clarified its general intent with regard to these classifications. More detailed responses to comments on this issue are provided later in this document.

The classifications in the NS1 guidelines are intended to reflect how FMPs have described ''fisheries,'' and to provide a helpful framework for thinking about how FMPs have incorporated and may continue to incorporate ecosystem considerations. To that end, the proposed NS1 guidelines attempted to describe the fact that FMPs typically include certain target species, and sometimes certain non-target species, that the Councils and/or the Secretary believed required conservation and management. In some FMPs, Councils have taken a broader approach and included hundreds of species, many of which may or may not require conservation and management but could be relevant in trying to further ecosystem management in the fishery.

NMFS wants to encourage ecosystem approaches to management, thus it proposed the EC species as a possible classification a Council or the Secretary could—but is not required to—consider. The final NS1 guidelines do not require a Council or the Secretary to include all target and non-target species as ''stocks in the fishery,'' do not mandate use of the EC species category, and do not require inclusion of particular species in an FMP. The decision of whether conservation and management is needed for a fishery and how that fishery should be defined remains within the authority and discretion of the relevant Council or the Secretary, as appropriate. NMFS presumes that stocks or stock complexes currently listed in an FMP are ''stocks in the fishery,'' unless the FMP is amended to explicitly indicate that the EC species category is being used. ''Stocks in the fishery'' need status determination criteria, other reference points, ACL mechanisms and AMs; EC species would not need them. NMFS recognizes the confusion caused by wording in the proposed action and has revised the final action to be more clear on these points.

Figure 1. General Framework for "Stocks in the Fishery" versus "Ecosystem Component Species." This figure describes the kind of stocks or stock complexes that might fall into the two classifications, but should not be viewed as requiring FMPs to include specific stocks or stock complexes in either category.

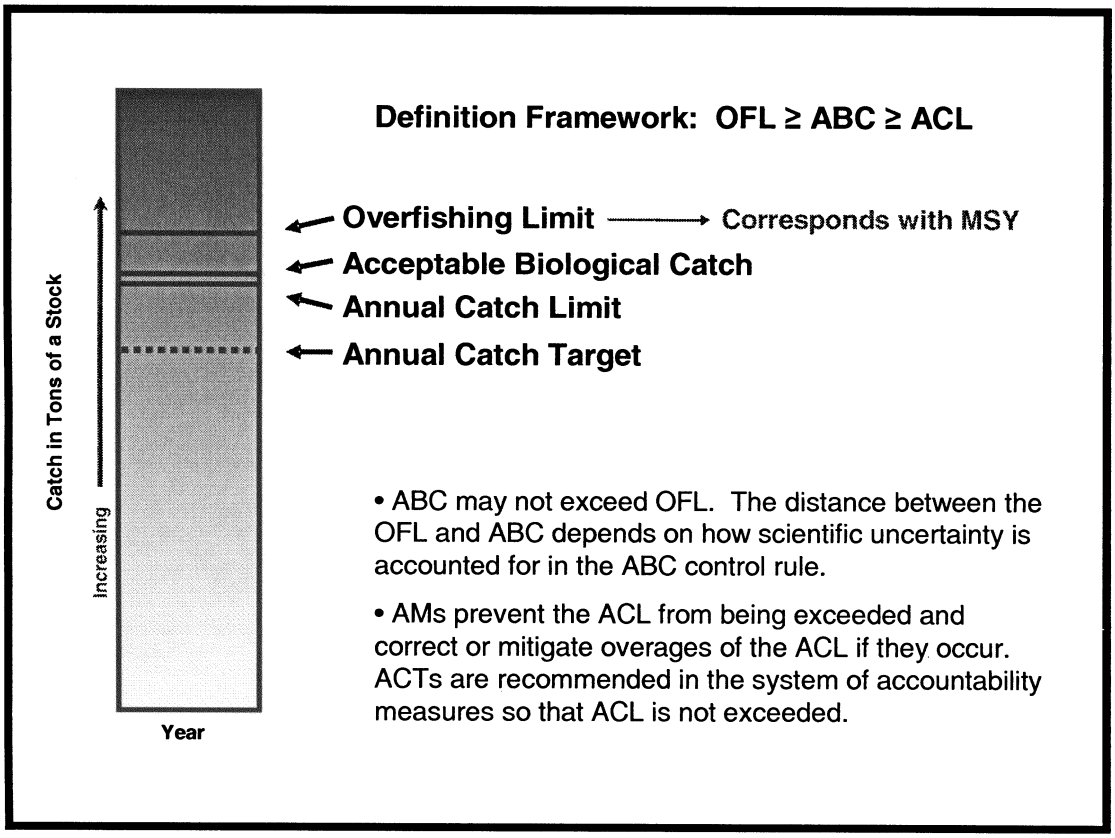


B. Definition Framework for OFL, ABC, and ACL

The MSRA does not define ACLs, AMs, and ABC, so NMFS proposed definitions for these terms in the proposed action. NMFS also proposed definitions for the terms OFL and ACT because it felt that they would be useful tools in helping ensure that ACLs are not exceeded and overfishing does not occur. The proposed NS1 guidelines described the relationship between the terms as: OFL ≥ ABC ≥ ACL ≥ ACT. In response to public comment, the final action revises the definition framework as: OFL ≥ ABC ≥ ACL. As described above, NMFS has retained ACT and the ACT control rule in the NS1 guidelines, but believes that they are more appropriate as AMs. NMFS believes ACTs could prove useful as management tools in fisheries with poor management control over catch (i.e., that frequently exceed catch targets).

NMFS received many comments on the definition framework, and some commenters stated that it should be revised as: OFL > ABC > ACL. Having considered public comment and reconsidered this issue, NMFS has decided to keep the framework as: OFL ≥ ABC ≥ ACL. However, NMFS believes there are few fisheries where setting OFL, ABC, and ACL all equal to each other would be appropriate. While the final action allows ABC to equal OFL, NMFS expects that in most cases ABC will be reduced from OFL to reduce the probability that overfishing might occur in a year. NMFS has added a provision to the final NS1 guidelines stating that, if a Council recommends an ACL which equals ABC, and the ABC is equal to OFL, the Secretary may presume that the proposal would not prevent overfishing, in the absence of sufficient analysis and justification for the approach. See figure 2 for an illustration of the relationship between OFL, ABC, ACL and ACT. Further detail on the definition framework and associated issues is provided in the ''Response to Comments'' section below.

Figure 2: Relationship between OFL, ABC, ACL and ACT



C. Accountability Measures (AMs)

Another major aspect of the revised NS1 guidelines is the inclusion of guidance on AMs. AMs are management controls to prevent ACLs, including sector-ACLs, from being exceeded, and to correct or mitigate overages of the ACL if they occur. NMFS has identified two categories of AMs, inseason AMs and AMs for when the ACL is exceeded. As described above, ACTs are recommended in the system of AMs so that ACLs are not exceeded. As a performance standard, if catch exceeds the ACL for a given stock or stock complex more than once in the last four years, the system of ACLs and AMs should be re-evaluated, and modified if necessary, to improve its performance and effectiveness.

D. SSC Recommendations and Process

Section 302(h)(6) of the MSA provides that each Council is required to ''develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendations of its scientific and statistical committee or the peer review process established under subsection (g).'' MSA did not define ''fishing level recommendations,'' but in section 302(g)(1)(B), stated that an SSC shall provide ''recommendations for acceptable biological catch, preventing overfishing, maximum sustainable yield, and achieving rebuilding targets,'' and other scientific advice.

NMFS received a variety of public comments regarding interpretation of ''fishing level recommendations.'' Some commenters felt that the SSC's ''fishing level recommendations'' that should constrain ACLs is the overfishing limit (OFL); other commenters stated that ''fishing level recommendations'' should be equated with MSY. NMFS does not believe that MSA requires ''fishing level recommendations'' to be equated to the OFL or MSY. As described above, the MSA specifies a number of things that SSCs recommend to their Councils. Of all of these things, ABC is the most directly relevant to ACL, as both ABC and ACL are levels of annual catch.

The preamble to the proposed NS1 guidelines recommended that the Councils could establish a process in their Statement of Organization, Practices and Procedures (SOPPs) for: establishing an ABC control rule, applying the ABC control rule (i.e., calculating the ABC), and reviewing the resulting ABC. NMFS believes that this may have caused confusion and that some commenters misunderstood the intent of this recommendation. NMFS received comment regarding inclusion of the ABC control rule in the SOPPs, and wants to clarify that the actual ABC control rule should be described in the FMP. NMFS believes it is important to understand how the Councils, SSC, and optional peer review process work together to implement the provisions of the MSA and therefore recommends that the description of the roles and responsibilities of the Council, SSC, and optional peer review process be included in the SOPPs, FMP, or some other public document. The SSC recommends the ABC to the Council whether or not a peer review process is utilized.

E. Management Uncertainty and Scientific Uncertainty

A major aspect of the revised NS1 guidelines is the concept of incorporating management and scientific uncertainty in using ACLs and AMs. Management uncertainty occurs because of the lack of sufficient information about catch (*e.g.*, late reporting, underreporting and misreporting of landings or bycatch). Recreational fisheries generally have late reporting because of the method of surveying catches and the lack of an ability for managers to interview only marine recreational anglers. NMFS is addressing management uncertainty in the recreational fishery by implementing a national registry of recreational fishers in the Exclusive Economic Zone (EEZ) (see proposed rule published in the **Federal Register** (73 FR 33381, June 12, 2008)) and a Marine Recreational Implementation Program that will, in part, revise the sampling design of NMFS's marine recreational survey for fishing activity.

Management uncertainty also exists because of the lack of management precision in many fisheries due to lack of inseason fisheries landings data, lack of inseason closure authority, or the lack of sufficient inseason management in some FMPs when inseason fisheries data are available. The final NS1 guidelines revisions provide that FMPs should contain inseason closure authority that gives NMFS the ability to close fisheries if it determines, based on data that it deems sufficiently reliable, that an ACL has been exceeded or is projected to be reached, and that closure of a fishery is necessary to prevent overfishing. NMFS believes that such closure authority will enhance efforts to prevent overfishing. Councils can derive some idea of their overall extent of management uncertainty by comparing past actual catches to target catches to evaluate the magnitude and frequency of differences between actual catch and target catch, and how often actual catch exceeded the overfishing limit for a stock.

Scientific uncertainty includes uncertainty around the estimate of a stock's biomass and its maximum fishing mortality threshold (MFMT); therefore, any estimate of OFL has uncertainty. Stock assessment models have various sources of scientific uncertainty associated with them and many assessments have shown a repeating pattern that the previous assessment overestimated near-future biomass, and underestimated near-future fishing mortality rates (i.e., called retrospective patterns).

V. Response to Comments

NMFS received many comments about the proposed definition framework (OFL ≥ ABC ≥ ACL ≥ ACT), especially regarding the ACT and ACT control rule. Some commenters suggested that the ACT and ACT control rule should not be required, while others supported their use. NMFS also received comments expressing: That the proposed terminology should not be required; OFL should always be greater than ABC; and concern that too many factors (i.e., management and scientific uncertainty, and ACT) will reduce future target catches unnecessarily. Some commenters felt additional emphasis should be placed on T_{min} in the rebuilding provisions. Councils, for the most part, are very concerned about the challenge of implementing ACLs and AMs by 2010, and 2011, as required. Some commenters felt the international fisheries exception to ACLs is too broad. Several commenters stated that an EIS should have been or should be prepared and two commenters stated an Initial Regulatory Flexibility Analysis under the Regulatory Flexibility Act should be prepared. NMFS also received many comments regarding the mixed-stock exception.

NMFS received many comments expressing support for the proposed revisions to the Magnuson-Stevens Act National Standard 1 guidelines. Comments included: This good faith effort to implement Congress' intent will work to end overfishing and protect the marine ecosystem; these guidelines reduce the risk of overfishing and will work to rebuild depleted stocks through the use of science based annual catch limits, accountability measures, 'buffers' for scientific and management uncertainty, and protections for weak fish stocks; and this solid framework will ensure not only healthy stocks but healthy fisheries.

Comment 1: Several comments were received regarding NMFS's decision to not prepare an environmental impact statement or environmental assessment for this action. Some supported the decision, while others opposed it and believed that a categorical exclusion under the National Environmental Policy Act (NEPA) is not appropriate.

Response: NMFS believes a categorical exclusion is appropriate for this action. Under §§ 5.05 and 6.03c.3(i) of NOAA's Administrative Order (NAO) 216–6, the following types of actions may be categorically excluded from the requirement to prepare an EA or EIS: ''* * * policy directives, regulations and guidelines of an administrative, financial, legal, technical or procedural nature, or the environmental effects of which are too broad, speculative or conjectural to lend themselves to meaningful analysis and will be subject later to the NEPA process, either collectively or case-by-case. * * *''

In this instance, a Categorical Exclusion is appropriate for this action, because NMFS cannot meaningfully analyze potential environmental, economic, and social impacts at this stage. This action revises NS1 guidelines, which are advisory only; MSA provides that NS guidelines ''shall not have the force and effect of law.'' MSA section 301(b). *See Tutein* v. *Daley*, 43 F. Supp.2d 113, 121–122 (D. Mass. 1999) (reaffirming that the guidelines are only advisory and holding that the national standards are not subject to judicial review under the

MSA). The NS1 guidelines are intended to provide broad guidance on how to comply with new statutory requirements. While the guidelines explain in detail how different concepts, such as ACL, ABC, MSY, and OY, should be addressed, the guidelines do not mandate specific management measures for any fishery. It is not clear what Councils will or will not do in response to the NS1 guidelines. Thus, it is not possible to predict any concrete impacts on the human environment without the necessary intervening actions of the Councils, e.g., consideration of best available scientific information and development of specific conservation and management measures that may be needed based on that information. Any analysis of potential impacts would be speculative at best.

None of the exceptions for Categorical Exclusions provided by § 5.05c of NAO 216–6 apply. While there is controversy concerning the NS1 guidelines revisions, the controversy is primarily related to different views on how new MSA requirements should be interpreted, rather than potential environmental consequences. The NS1 guidelines would not, in themselves, have uncertain environmental impacts, unique or unknown risks, or cumulatively significant or adverse effects upon endangered or threatened species or their habitats. Moreover, this action would not establish a precedent or decision in principle about future proposals. As noted above, the guidelines provide broad guidance on how to address statutory requirements but do not mandate specific management actions.

Comment 2: One commenter criticized NMFS' approach as placing unnecessary burden on the Councils to conduct the NEPA analysis.

Response: No change was made. One of the Councils' roles is to develop conservation and management measures that are necessary and appropriate for management of fisheries under their authority. NMFS believes that Councils should continue to have the discretion to determine what measures may be needed in each fishery and what alternatives should be considered and analyzed as part of the fishery management planning process. Councils routinely incorporate NEPA into this process, and the actions to implement ACLs in specific fisheries must address the NEPA requirements, regardless of the level of analysis conducted for the guidelines. Therefore, having reviewed the issue again, NMFS continues to find that a categorical exclusion is appropriate for this action.

Comment 3: Two commenters stated that NMFS should have prepared an initial regulatory flexibility analysis under the RFA for this action. They said it was not appropriate to certify under the RFA because in their opinion, this action will have significant economic impacts on a substantial number of small entities.

Response: No change was made. The final NS1 guidelines will not have significant economic impacts on a substantial number of small entities. The guidelines are advisory only; they provide general guidance on how to address new overfishing, rebuilding, and related requirements under the MSA. Pursuant to MSA section 301(b), the guidelines do not have the force and effect of law. When the Councils/Secretary apply the guidelines to individual fisheries and implement ACL and AM mechanisms, they will develop specific measures in their FMPs and be able to analyze how the new measures compare with the status quo (e.g., annual measures before the MSRA was signed into law and the NS1 guidelines were revised) with respect to economic impacts on small entities. At this point, any analysis of impacts on small entities across the range of diverse, Federally-managed fisheries would be highly conjectural. Therefore, a certification is appropriate.

Comment 4: Several comments were received that the guidelines are too complex and they contain guidance for things, such as the ACT that are not required by the MSA. They suggested removing these provisions from the guidance, or only providing guidance for terms specifically mentioned in the statute.

Response: NMFS agrees that the guidelines can appear complex. However, the purpose of the guidelines is not simply to regurgitate statutory provisions, rather it is to provide guidance on how to meet the requirements of the statute. As discussed in other comments and responses, MSRA includes new, undefined terms (ABC and ACL), while retaining other long-standing provisions, such as the national standards. In considering how to understand new provisions in light of existing ones, NMFS considered different ways to interpret language in the MSA, practical challenges in fisheries management including scientific and management uncertainty, the fact that there are differences in how fisheries operate, and public comment on proposed approaches in the NS1 guidelines. MSA does not preclude NMFS from including additional terminology or explanations in the NS1 guidelines, as needed, in order to facilitate understanding and effective implementation of MSA mandates. In the case of NS1, conservation and management measures must prevent overfishing while achieving, on a continuing basis, the optimum yield. This is inherently challenging because preventing overfishing requires that harvest of fish be limited, while achieving OY requires that harvest of fish occur. In developing the guidelines, NMFS identified the reasons that overfishing was still occurring in about 20 percent of U.S. Fisheries, and wrote the guidelines to address the primary causes. These include:

(1) Setting OY too close to MSY,

(2) Failure to consider all sources of fishing mortality,

(3) Failure to adequately consider both uncertainty in the reference points provided by stock assessments (scientific uncertainty) and uncertainty in management control of the actual catch (management uncertainty),

(4) Failure to utilize best available information from the fishery for inseason management, and

(5) Failure to identify and correct management problems quickly.

NMFS believes that the guidelines address these causes and appropriately provide practical guidance on how to address them, while providing sufficient flexibility to acknowledge the differences in fisheries. NMFS believes that Congress intended that the ACLs be effective in ending and preventing overfishing. Simply amending the FMPs to include ACL provisions is not enough—the actual performance of the fishery is what ultimately matters. NMFS believes that all of the provisions in the guidelines are essential to achieving that goal, and that if the guidelines are followed, most of the problems that have led to continued overfishing will be addressed. NMFS has made changes in the final action to clarify the guidelines and simplify the provisions therein, to the extent possible. One specific change is that the final guidelines do not require that ACT always be established. Instead, NMFS describes how catch targets, such as ACT, would be used in a system of AMs in order to meet the requirements of NS1 to prevent overfishing and achieve OY. More details on these revisions are covered in responses pertaining to comments 8, 32, 44, 45, and 48.

Comment 5: Several commenters stated that Councils' workloads and the delay of final NS1 guidelines will result in some Councils having great difficulty or not being able to develop ACLs and AMs for overfishing stocks by 2010, and all other stocks by 2011.

Response: The requirements in MSA related to 2010 and 2011 are statutory; therefore ACLs and AMs need to be in place for those fishing years such that overfishing does not occur. NMFS understands that initial ACL measures for some fisheries have been developed before the NS1 guidelines were finalized in order to meet the statutory deadline, and thus may not be fully consistent with the guidelines. ACL mechanisms developed before the final guidelines should be reviewed and eventually revised consistent with the guidelines.

Comment 6: Several commenters stated that certain existing FMPs and processes are already in compliance with the ACL and AM provisions of the MSA and consistent with the proposed guidelines. One commenter stated that NMFS should bear the burden of determining whether current processes are inconsistent with the MSA, and indicate what action Councils should take. Another commenter stated that Congress intended Total Allowable Catch (TAC), which is already used in some fisheries, to be considered to be an ACL. NMFS also received comments stating that certain terms have had longstanding use under FMPs, and changing the terminology could cause too much confusion.

Response: NMFS believes that some existing FMPs may be found to need little or no modification in order to be found to be consistent with the MSA and NS1 guidelines. In general, these are fisheries where catch limits are established and the fishery is managed so that the limits are not exceeded, and where overfishing is not occurring. NMFS agrees that, in some fisheries, the TAC system currently used may meet the requirements of an ACL. However, there are a wide variety of fisheries that use the term TAC, and while some treat it as a true limit, others treat it simply as a target value on which to base management measures. Therefore, NMFS does not agree that the use of a TAC necessarily means the fishery will comply with the ACL and AM provisions of the MSA. NMFS will have to review specific FMPs or FMP amendments. In addition, upon request of a Council, NMFS can provide input regarding any changes to current processes that might be needed for consistency with the MSA and guidance in the NS1 guidelines.

Regarding the comment about terminology, the preamble to the proposed action provided that Councils could opt to retain existing terminology and explain in a proposed rule how the terminology and approaches to the FMPs are consistent with those set forth in the NS1 guidelines. NMFS has given this issue further consideration and believes that a proposed rule would not be necessary or appropriate. Instead, a Council could explain in a **Federal Register** notice why its terminology and approaches are consistent with the NS1 guidelines.

Comment 7: Some commenters thought that before requiring implementation of a new management system, it should first be demonstrated that the current management system is not effective at preventing overfishing or rebuilding stocks that are overfished, and that a new management system would be more effective. Changing a management system that is effective and responsive would not be productive.

Response: While NMFS understands that current conservation and management measures prevent overfishing in some fisheries, the MSA requires a mechanism for specifying ACLs and AMs in all fisheries, including those that are not currently subject to overfishing, unless an exception applies. There is no exception to the requirement for ACLs and AMs for fisheries where other, non-ACL management measures are preventing overfishing. NMFS is required by the MSRA to implement the new provisions in all FMPs, unless an exception applies, even on those whose current management is preventing overfishing. NMFS believes the guidance provides the tools for Councils to implement ACLs in these fisheries that will continue to prevent overfishing without disrupting successful management approaches. The guidelines provide flexibility to deviate from the specific framework described in the guidelines, if a different approach will meet the statutory requirements and is more appropriate for a specific fishery (*see* § 600.310(h)(3) of the final action).

Comment 8: Some commenters supported the use of ACT to address management uncertainty in the fishery. Others did not support ACTs, and commented that ACTs are not required under the MSA and that inclusion of ACTs in the guidelines creates confusion and complexity. One commenter stated that the proposed guidelines were ''out of line'' with NMFS's mandate and authority provided under the MSA because the guidelines for ACTs and associated control rules completely undermine the clear directive Congress provides in National Standard 1 to achieve optimum yield on an ongoing basis.

Response: The proposed guidelines stressed the importance of addressing scientific and management uncertainty in establishing ACL and AM mechanisms. Scientific uncertainty was addressed in the ABC control rule, and management uncertainty was addressed in the ACT control rule. Use of catch targets associated with catch limits is a well-recognized principle of fishery management. The current NS1 guidelines call for establishment of limits, and targets set sufficiently below the limits so that the limits are not exceeded. The revised guidelines are based on this same principle, but, to incorporate the statutory requirements for ABC and ACLs, are more explicit than the current guidelines. While MSA does not refer to the term ACT, inclusion of the term in the NS1 guidelines is consistent with the Act. The NS1 guidelines are supposed to provide advice on how to address MSA requirements, including how to understand terminology in the Act and how to apply that terminology given the practical realities of fisheries management. In developing the proposed guidelines, NMFS considered a system that used ABC as the limit that should not be exceeded, and that required that ACL be set below the ABC to account for management uncertainty. This had the advantage of minimizing the number of terms, but would result in the ACL having been a target catch level. NMFS decided, that since Congress called for annual catch limits to be set, that the ACL should be considered a true limit—a level not to be exceeded. ACT was the term adopted for the corresponding target value which the fishery is managed toward so that the ACL is not exceeded.

Taking public comment into consideration, NMFS has decided to retain ACTs and ACT control rules in the final guidelines, but believes they are better addressed as AMs for a fishery. One purpose of the AMs is to prevent the ACL from being exceeded. Setting an ACT with consideration of management uncertainty is one way to achieve this, but may not be needed in all cases. In fisheries where monitoring of catch is good and in-season management measures are effective, managers may be able to prevent ACLs from being exceeded through direct monitoring and regulation of the fishery. Therefore, the final guidelines make ACTs optional, but, to prevent ACLs from being exceeded, Councils must adequately address the management uncertainty in their fisheries using the full range of AMs.

NMFS disagrees that ACTs undermine NS1. NS1 requires that conservation and management measures prevent overfishing while achieving, on a continuing basis, the OY. The MSA describes that OY is based on MSY, as reduced based on consideration of

several factors. In some cases, the amount of reduction may be zero, but in no case may the OY exceed MSY. Therefore, if OY is set close to MSY, the conservation and management measures in the fishery must have very good control of the amount of catch in order to achieve the OY without overfishing.

The amount of fishing mortality that results in overfishing is dictated by the biology of the stock and its environment, and establishes a limit that constrains fisheries management. However, the specification of OY and the conservation and management measures for the fishery are both set by fishery managers. To achieve the dual requirements of NS1, Councils must specify an OY and establish conservation and management measures for the fishery that can achieve the OY without overfishing. The closer that OY is set to MSY, the greater degree of control over harvest is necessary in order to meet both objectives. The choice of conservation and management measures for a fishery incorporates social and economic considerations. For example, a Council may prefer to use effort controls instead of hard quotas to have a year-round fishery without a ''race for fish,'' and to provide higher average prices for the fishermen. However, compared to hard quotas, management with effort controls gives more uncertainty in the actual amount of fish that will be caught. Because of this increased uncertainty, the OY needs to be reduced from MSY so that overfishing does not occur. Thus the social and economic considerations of the choice of management measures should be considered in setting the OY.

In cases where the conservation and management measures for a fishery are not capable of achieving OY without overfishing occurring, overfishing must be ended even if it means the OY is not achieved in the short-term. Overfishing a stock in the short term to achieve OY jeopardizes the capacity of the stock to produce OY in the long term, and thus cannot be sustained. Preventing overfishing in a fishery on an annual basis is important to ensure that a fishery can continue to achieve OY on a continuing basis. The specification of OY and the associated conservation and management measures need to be improved so that OY can be achieved without overfishing occurring. In a fishery where the NS1 objectives are fully met, the OY specification will adequately account for the management uncertainty in the associated conservation and management measures. Overfishing will not occur, and the OY will be achieved.

Comment 9: Commenters stated that the designation of the Virgin Islands Coral Reef Monument was not being taken into account in the Caribbean Council's FMPs.

Response: NMFS does not believe any revision of the NS1 guidelines is necessary in response to this comment but will forward the comment to the Council for its consideration.

Comment 10: NMFS received comments in support of the flexibility given to councils to manage stocks for which ACLs are not a good fit, such as management of Endangered Species Act listed species, stocks with unusual life history characteristics, and aquaculture operations. Commenters noted that Pacific salmon should be treated with flexibility under the NS1 guidelines, because they are managed to annual escapement levels that are functionally equivalent to ACLs, and there are accountability, review, and oversight measures in the fishery.

Response: NMFS agrees that flexibility is needed for certain management situations, and clarifies that § 600.310(h)(3) provides for flexibility in application of the NS1 guidelines but is not an exception from requirements of MSA section 303(a)(15) or other sections.

Comment 11: Congress did not mandate that all fisheries be managed by hard quotas, and so NMFS should include guidance for the continuation of successful, non-quota management systems, such as that used to successfully manage the Atlantic sea scallop fishery.

Response: NMFS agrees that the conservation and management measures for a fishery are not required to be ''hard quotas.'' However, NMFS believes that the ACL was intended by Congress to be a limit on annual catch. Therefore, conservation and management measures must be implemented so that the ACL is not exceeded, and that accountability measures must apply whenever the ACL is exceeded. Congress did not exempt any fisheries from the ACL requirement on the basis that current management was successful. If the current conservation and management measures are effective in controlling harvest of sea scallops such that the ACL is not regularly exceeded, the ACL would have little effect on the fishery. If the current management measures are not effective in keeping catch from exceeding the ACL, then consistent with the ACL requirement in the MSA, additional management action should be taken to prevent overfishing.

Comment 12: The summary list of items to be included in FMPs should be ''as appropriate'' (see § 600.310(c) of the final action).

Response: No change was made. NMFS believes that if any item does not apply to a particular fishery, the Council can explain why it is not included, but believes that ''as appropriate'' would create further confusion as there is no clear definition of what appropriate means in this context.

Comment 13: The list of items to include in FMPs related to NS1 is extremely long, and it is unclear whether each item on the list needs to be addressed for all stocks that are ''in the fishery,'' which is a very broad term. Including the extra information is unlikely to materially improve management.

Response: As a default, all the stocks or stock complexes in an FMP are considered ''in the fishery'' (see § 600.310(d)(1)), unless they are reclassified as ecosystem component stocks through an FMP amendment process. Further explanation of these classifications is provided below in other comments and responses. The benefit of including this list of items is to provide transparency in how the NS1 guidelines are being met. In addition, Councils should already have some of the items in their FMPs (ex: MSY, status determination criteria (SDC), and OY). The other items are new requirements of the MSA or a logical extension of the MSA.

Comment 14: NMFS received several comments both supporting and opposing the proposed ''stocks in a fishery'' and ''ecosystem component species'' (EC) classifications of stocks in a FMP. Comments included: EC species are not provided under the MSA and should not be required in FMPs; EC species classification is needed but may lead to duplication in different FMPs; support for the distinction between ''stocks in a fishery'' and EC species; and clarify how data collection only species should be classified.

Response: NMFS provided language for classifying stocks in a FMP into two categories: (1) ''Stocks in the fishery'' and (2) ''ecosystem component species.'' MSA requires that Councils develop ACLs for each of their managed fisheries (see MSA sections 302(h)(6) and 303(a)(15)), but Councils have had, and continue to have, considerable discretion in defining the ''fishery'' under their FMPs. As a result, some FMPs include one or a few stocks (*e.g.* , Bluefish FMP, Dolphin-Wahoo FMP) that have been traditionally managed for OY, whereas others have begun including hundreds of species (e.g., Coral Reef Ecosystem of the Western Pacific Region FMP) in an

effort to incorporate ecosystem approaches to management.

While EC species are not explicitly provided in the MSA, in the MSRA, Congress acknowledged that certain Councils have made significant progress in integrating ecosystem considerations, and also included new provisions to support such efforts (*e.g.*, MSA section 303(b)(12)). As noted in the preamble of this action, NMFS wants to continue to encourage Councils to incorporate ecosystem considerations, and having classifications for ''stocks in the fishery'' versus ''ecosystem component species'' could be helpful in this regard. Thus, the final guidelines do not require Councils or the Secretary to change which species are or are not included in FMPs, nor do the guidelines require FMPs to incorporate the EC species classification. NMFS has revised the final guidelines to state explicitly that Councils or the Secretary may—but are not required to—use an EC species classification.

In developing the text regarding EC species and ''stocks in the fishery,'' NMFS examined what existing FMPs are already doing and utilized that in its description of these classifications. For example, based on existing FMPs, the guidelines envision that species included for data collection and other monitoring purposes could be considered EC species (assuming they meet the criteria described in § 600.310(d)(5)(i)). However, such species could also be ''stocks in the fishery,'' as described under the NS3 guidelines (§ 600.320(d)(2)). NMFS recognizes the desire for greater specificity regarding exactly which species could or could not be considered EC species, but does not believe that further detail in the guidelines could clarify things definitively. Determining whether the EC category is appropriate requires a specific look at stocks or stock complexes in light of the general EC species description provided in the NS1 guidelines as well as the broader mandates and requirements of the MSA. If Councils decide that they want to explore potential use of the EC species classification, NMFS will work closely with them to consider whether such a classification is appropriate.

Comment 15: NMFS received several comments regarding the level of interaction that would be appropriate for the EC classification. Comments included: *de minimis* levels of catch should be defined to clarify the difference between ''stocks in a fishery'' and EC species; all stocks that interact with a fishery should be included as ''stocks in a fishery''; requiring non-target stocks to be considered part of the fishery as written supersedes NS9; guidelines should clarify that EC species do not have significant interaction with the fishery; and, bycatch species should not be included as ''stocks in a fishery.''

Response: NMFS is revising the final guidelines to clarify preliminary factors to be taken into account when considering a species for possible classification as an EC species. Such factors include that the species should: (1) Be a non-target species or non-target stock; (2) not be determined to be subject to overfishing, approaching overfished, or overfished; (3) not likely to become subject to overfishing or overfished, according to the best available information, in the absence of conservation and management measures; and (4) not generally retained for sale or personal use. Factors (2) and (3) are more relevant to species that are currently listed in FMPs and that have specified SDCs. With regard to factor (4), the final guidelines add new language in § 600.310(d)(5)(i)(D)—''not generally retained for sale or personal use''—in lieu of ''*de minimis* levels of catch'' and clarify that occasional retention of a species would not, in itself, preclude consideration of a species in the EC classification. The NS1 guidelines provide general factors to be considered, as well as some examples of possible reasons for using the EC category. However, the decision of whether to use an EC classification requires consideration of the specific fishery and a determination that the EC classification will be consistent with conservation and management requirements of the MSA.

Under the MSA, a Council prepares and submits FMPs for each fishery under its authority that requires conservation and management, and there is considerable latitude in the definition of the fishery under different FMPs. The definition of ''fishery'' is broad, and could include one or more stocks of fish treated as a unit for different purposes, as well as fishing for such stock (see MSA section 3(13)(B)). While some comments encouraged inclusion of all species that might interact with a fishery, all bycatch species, or all species for which there may be ''fishing'' as defined in MSA section 3(13)(B), NMFS does not believe that MSA mandates such a result. MSA does not compel FMPs to include particular stocks or stock complexes, but authorizes the Councils or the Secretary to make the determination of what the conservation and management needs are and how best to address them. Taking the broader approaches noted above would interfere with this discretion and also could result in overlapping or duplicative conservation and management regimes in multiple FMPs under different Council jurisdictions. As National Standard 6 requires that conservation and management measures, where practicable, minimize costs and avoid unnecessary duplication, NMFS believes that Councils should retain the discretion to determine which fisheries require specific conservation and management measures. With regard to bycatch, regardless of whether a species is identified as part of a fishery or not, National Standard 9 requires that FMPs, to the extent practicable, minimize bycatch and to the extent it cannot be avoided minimize bycatch mortality. Additional protections are afforded to some species under the Endangered Species Act, regardless of whether they are listed as stocks in a fishery. Further, as a scientific matter, NMFS disagrees that every bycatch species would require conservation and management measures to protect the species from becoming overfished, because some bycatch species exhibit high productivity levels (*e.g.*, mature early) and low susceptibilities to fishery (*e.g.*, rarely captured) that preclude them from being biologically harmed or depleted by particular fisheries.

Comment 16: NMFS received several comments requesting that the guidelines include a description of vulnerability and how it should be determined, since it is referenced throughout the guidelines.

Response: NMFS agrees, and has added § 600.310(d)(10) to the final action, to define vulnerability. In general, to determine the vulnerability of a species/stock becoming overfished, NMFS suggests using quantitative estimates of biomass and fishing rates where possible; however, when data are lacking, qualitative estimates can be used. NMFS is currently developing a qualitative methodology for evaluating the productivity and susceptibility of a stock to determine its vulnerability to the fishery, and anticipates the methodology to be finalized by February 2009. The methodology is based on the productivity-susceptibility analysis (PSA) developed by Stobutzki *et al.* (2001), which was suggested by many commenters. Stocks that have low susceptibilities (*e.g.*, rarely interact with the fishery, no indirect impacts to habitat, etc.) and high productivities (*e.g.*, mature at an early age, highly fecund, etc.) are considered to have a low vulnerability of becoming overfished, while stocks that have low productivities and high susceptibilities

to the fishery are considered highly vulnerable to becoming overfished.

Comment 17: Some commenters noted that the EC classification could be used to avoid reference point specification.

Response: NMFS believes that the guidelines provide mechanisms to address this issue. As a default, NMFS presumes that all stocks or stock complexes that Councils or the Secretary decided to include in FMPs are ''stocks in the fishery'' that need ACL mechanisms and AMs and biological reference points. Whether it would be appropriate to include species in the EC category would require consideration of whether such action was consistent with the NS1 guidelines as well as the MSA as a whole. If a Council or the Secretary wishes to add or reclassify stocks, a FMP amendment would be required, which documents rationale for the decision. However, the guidelines have been modified to note that EC species should be monitored to the extent that any new pertinent scientific information becomes available (*e.g.*, catch trends, vulnerability, etc.) to determine if the stock should be reclassified.

Comment 18: With regard to ecological, economic, and social (EES) factors related to OY, some commenters requested more specific guidance in incorporating the factors, and others commented that accounting for the factors is too time consuming. Other commenters expressed support for the reference to forage fish species and suggested including text on maximum economic yield and fish health.

Response: The NS1 guidelines generally describe OY as the long-term average amount of desired yield from a stock, stock complex, or fishery. OY is prescribed on the basis of MSY as reduced by EES factors (MSA section 3(33)). The NS1 guidelines set forth examples of different considerations for each factor, and NMFS believes the examples provide sufficient guidance on EES factors. NMFS has not made substantive changes from the proposed action, but has clarified that FMPs must address each factor but not necessarily each example.

Comment 19: NMFS received several comments in support of using stock complexes as a management tool in data poor situations and other comments that expressed concern about the use of stock complexes and indicator species. Comments included: stock complexes should only be used when sufficient data are lacking to generate species-specific SDCs and related reference points; there is little ecological basis for using indicator species to set ACLs for stock complexes (see Shertzer and Williams (2008)) as stocks within a stock complex exhibit different susceptibilities to the fishery; if used, stock complexes should be managed using the weakest or most vulnerable stock within the complex as a precautionary approach to management; it would be helpful to have examples of how a data poor stock could be periodically examined to determine if the stock is overfished or subject to overfishing.

Response: NMFS agrees that where possible Councils should generate stock-specific SDCs and related reference points for stocks in fishery; however, there are other circumstances in which stock complex management could be used. NMFS notes in § 600.310(d)(8) of the final action that stocks may be grouped into complexes for various reasons, including: where stocks in a multispecies fishery cannot be targeted independent of one another and MSY can not be defined on a stock-by-stock basis (see § 600.310(e)(1)(iii) of the final action); where there is insufficient data to measure their status relative to SDC; or when it is not feasible for fishermen to distinguish individual stocks among their catch.

NMFS believes that the guidelines sufficiently addressed the issue that stock complexes should be managed using the most vulnerable stock within the complex. In § 600.310(d)(9) of the final action the guidelines note that ''if the stocks within a stock complex have a wide range of vulnerability, they should be reorganized into different stock complexes that have similar vulnerabilities; otherwise the indicator stock should be chosen to represent the more vulnerable stocks within the complex. In instances where an indicator stock is less vulnerable than other members of the complex, management measures need to be more conservative so that the more vulnerable members of the complex are not at risk from the fishery.'' Additionally, these guidelines address the concerns of Shertzer and Williams (2008), by recommending that both productivity and susceptibility of the stock (*i.e.*, vulnerability to the fishery) is considered when creating or re-organizing stock complexes.

Lastly, NMFS agrees and has modified the phrase in § 600.310(d)(9) of the proposed action ''Although the indicator stock(s) are used to evaluate the status of the complex, individual stocks within complexes should be examined periodically using available quantitative or qualitative information to evaluate whether a stock has become overfished or may be subject to overfishing'' to provide examples of quantitative or qualitative analysis.

Comment 20: NMFS received comments regarding the process for specifying the ACL for either a stock complex or for a single indicator species. The commenters were concerned that the proper data will not be utilized to determine whether the ACL should be set for the stock complex or for single indicator species. They feel that the use of single indicator species would not represent the stock's abundance, especially in the St. Thomas/St. John and St. Croix fisheries.

Response: NMFS understands the concern, but does not believe the guidelines need to be revised. NMFS will refer this comment to the Council.

Comment 21: NMFS received comments stating that the final action should clarify how SDCs and ACLs should be applied to stocks that are targeted in one fishery and bycatch in another, as well as circumstances where the stock is targeted by two or more FMPs that are managed by different regional councils.

Response: NMFS believes that the guidelines sufficiently addressed this issue in § 600.310(d)(7) of the final action, which notes ''* * * Councils should choose which FMP will be the primary FMP in which management objectives, SDC, the stock's overall ACL and other reference points for the stock are established.'' NMFS believes that the Councils should continue to have the discretion to make such determinations. NMFS, however, suggests that the primary FMP should usually be the FMP under which the stock is targeted. In instances where the stock is targeted in two or more FMPs (*e.g.*, managed by two or more Councils), Councils should work together to determine which FMP is the primary.

Comment 22: Several commenters requested further clarification on how prohibited species should be classified under the proposed classification scheme (see § 600.310(d)) because they felt it was unclear whether a species for which directed catch and retention is prohibited would be classified as ''in the fishery'' or as an ''ecosystem component''.

Response: NMFS believes that the information in § 600.310(d) provides a sufficient framework in which decisions can be made about how to classify a prohibited species under an FMP. Prohibition on directed catch and/or retention can be applied to either a stock that is ''in the fishery'' or an ''ecosystem component'' species. Managers should consider the classification scheme outlined in § 600.310(d) of the final action as well

as MSA conservation and management requirements generally. If a stock contains one of the ''in the fishery'' characteristics, then it belongs ''in the fishery'', regardless of the management tools that will be applied to it (*e.g.*, prohibition, bag limits, quotas, seasons, etc.). Also, if the intent is to prohibit directed fishing and retention throughout the exclusive economic zone (EEZ) for which a Council has jurisdiction, then the stock would, most likely, be identified in an FMP as ''in the fishery'' rather than as an ecosystem component of one particular FMP.

Comment 23: Several commenters asked at what level an ACL would be specified for a species for which directed catch and retention is prohibited. Setting the ACL at zero would not be logical because if even one was caught incidentally then AMs would be triggered. Setting it higher would also not be logical because the point is to ensure little to no catch of the stock.

Response: Prohibiting retention is a management measure to constrain the catch to a minimal amount. If listed as a stock in the fishery, the reference points for the species, such as OFL and ABC, should be set based on the MSY for the stock, or, if ESA listed, would be set according to the associated ESA consultation's incidental take statement, regardless of the management approach used. The ACL may not exceed the ABC, but should be set at a level so that the mortality resulting from catch and discard is less than the ACL.

Comment 24: NMFS received a comment stating that the specification of MSY must incorporate risk, be based on gear selectivity and support a healthy, functioning ecosystem. The commenter supported revisions to § 600.310(e)(1) of the proposed action but suggested that it should be strengthened to address ecosystem principles. The commenter cited NOAA Tech Memo NMFS–F/SPO–40 in contending that the concept of MSY contains inherent risks that must be addressed in establishing reference points. Other commenters stated that: Councils establish management measures with high probabilities of success (*e.g.*, 80 percent); ''fishery technological characteristics'' should be re-evaluated every two years; and MSY values normally equate to fishing down a population to forty percent of historic abundance and this may not be consistent with ecosystem based management.

Response: NMFS agrees that ecological conditions and ecosystem factors should be taken into account when specifying MSY and has added additional language to § 600.310(e)(1)(iv) of the final action to highlight this point. Such factors might include establishing a higher target level of biomass than normally associated with the specific stock's B_{msy}. In addition, ecological conditions not directly accounted for in the specification of MSY can be among the ecological factors considered when setting OY below MSY. Regarding the comment about establishing management measures with a high probability of success, this is addressed in comment #63. NMFS does not believe that the NS1 guidelines need to be revised to require that fishery technological characteristics be evaluated every 2 years; such characteristics would be routinely updated with each stock assessment. The MSA bases management of fishery resources on MSY, but provides that OY can be reduced from MSY for ecological factors. NMFS believes the guidelines are consistent with the MSA and allow Councils to implement ecosystem approaches to management.

Comment 25: Several comments requested the guidelines state that specification of reference points should not be required for a stock ''in the fishery'' if its directed catch and retention is prohibited because managers applied the prohibition in an effort to prevent overfishing.

Response: Prohibition of retention does not necessarily mean that overfishing is prevented. Even though the species cannot be retained, the level of fishing mortality may still result in overfishing. Many stocks for which prohibitions are currently in place are considered data-poor. NMFS acknowledges that specifying reference points and AMs will be a challenge for such stocks, but reiterates the requirement to establish ACLs and AMs for all managed fisheries, unless they fall under the two statutory exceptions (see § 600.310(h)(2) of the final action), and also the need to take into consideration best scientific information available per National Standard 2.

Comment 26: NMFS received comments voicing a concern about the NMFS process of determining the overfishing status of a fishery, because fishery management measures have been implemented to end overfishing, but stocks are still listed as subject to overfishing and require ACLs by 2010. The commenters felt that several species under the Caribbean Fishery Management Council's protection should currently be removed from the overfished species list.

Response: NMFS agrees that this is an important issue. Due to the process inherent in determining the status of a stock there is inevitably a lag time between implementation of management measures and a new assessment of the stock's status under those measures. NMFS is required by the MSA to establish new requirements to end and prevent overfishing through the use of ACLs and AMs. The fisheries subject to overfishing, including several in the Caribbean, are required to have ACLs by 2010, and all other fisheries must have ACLs by 2011. The Council's Comprehensive Amendment that implemented the Sustainable Fisheries Act in 2006 included measures designed to end overfishing. Although these measures may have ameliorated fishing pressure for some fishery resources in the U.S. Virgin Islands, the Council will need to evaluate the existing fishery management measures to determine whether they are sufficient to meet the new statutory requirements for ACLs and AMs.

Comment 27: Several commenters stated that NMFS should not include the OFL as the basis for overfishing SDC. Specific comments included: (1) The MSA does not define or require OFL, so NMFS should not use it in the guidelines; (2) catch-based SDC are inconsistent with the Magnuson-Stevens Act intent and SDC should only be based on the fishing mortality rate as it relates to a stock or stock complex's capacity to achieve MSY on a continual basis; (3) the Magnuson-Stevens Act does not require use of the long term average OFL as MSY; (4) NMFS increases the risk of overfishing when theoretical catch estimates or a constant fishing mortality rate (F) are used to manage a fishery especially when a retrospective pattern exists in a stock or stock complex.

Response: The term, OFL, is not defined in the MSA. However, OFL is directly based on requirements of the MSA, including the concept of MSY, and the requirement to prevent overfishing. NMFS does not believe that lack of a definition in the MSA precludes definition and use of OFL in order to meet the objectives of the MSA. The MSA defines overfishing as a rate or level of fishing mortality that jeopardizes the capacity of the stock to produce MSY. This mortality rate is defined by NMFS as the MFMT. The OFL for a year is calculated from the MFMT and the best estimate of biomass for a stock in that year, and thus is simply the MFMT converted into an amount of fish. The OFL is an annual level of catch that corresponds directly to the MFMT, and is the best estimate of the catch level above which overfishing is occurring. OFL is in terms

of catch, and thus is in the same units as ABC and ACL. NMFS believes, therefore, that comparing catch to OFL is a valid basis for determining if overfishing has occurred that year. The relationship of MSY to OFL is that MSY is the maximum yield that the stock can provide, in the long term, while OFL is an annual estimate of the amount of catch above which overfishing is occurring. The annual OFL varies above and below the MSY level depending on fluctuations in stock size. Since both MSY and OFL are related to the highest fishing mortality rate that will not result in overfishing, it is expected that the long-term average of OFLs would equate to MSY, provided that the stock abundance is high enough to support MSY.

The NS1 guidelines give the Councils flexibility to determine if overfishing occurs by using either MFMT (F > MFMT) or actual annual catch (catch > OFL) as the criteria for overfishing determinations. There are advantages and disadvantages of using either measure. The advantages of using OFL as a SDC are that catch can be easily understood by constituents, a determination can be made as soon as catch totals are available, and there is no retrospective problem with setting the SDC itself. Use of OFL might not be appropriate for stocks with highly variable recruitment that can not be predicted and therefore incorporated into the forecast of stock condition on which OFL is based. The advantage of using MFMT to determine if overfishing is occurring is because F is based on a stock assessment analyzing the past performance of the fishery. This means that the MFMT method is less sensitive than the OFL method to recent fluctuations in recruitment. However, F cannot not be calculated until an assessment has been updated, which may lag the fishery by several years. Therefore, a status determination based on MFMT could be less current than a determination based on OFL and catch, and reflects past, rather than current, fishery performance. Also, if there is a retrospective pattern in the assessment, then the hindsight estimate of F for a particular year used for the SDC will be different than the forecast estimate of stock condition used when setting target catch levels and management measures for that same year. The choice of SDC for a stock should consider things like the frequency of stock assessments, the ability to forecast future stock size, and any known retrospective patterns in the assessment. If the SDC are appropriately chosen, NMFS does not believe that one method necessarily presents more risk that overfishing will occur.

Comment 28: NMFS received one comment which proposed that instead of being required to choose between OFL or MFMT as the SDC, that Councils should have the flexibility to use both. The comment implied that this would allow Councils to use MFMT as the SDC in years in which there is an assessment and OFL in years in which there is not an assessment.

Response: The NS1 guidelines require documentation for the rationale a Council uses to select the SDC within the FMP including defining overfishing status in terms of the MFMT (*i.e.*, fishing mortality rate) or OFL (*i.e.*, annual total catch) in such a way that overfishing can be monitored and determined on an annual basis. A Council could develop SDC based on both criteria, if sufficient rationale is provided.

Comment 29: NMFS received two comments in opposition to the ''overfished'' definition used by NMFS in the proposed rule. They point out that the current overfished definition could include stocks that are ''depleted'' due to changing environmental conditions not caused by fishing pressure. They propose that NMFS should revise the definition of ''overfished'' and create a ''depleted'' category for stocks that have declined below the minimum stock size threshold (MSST) due to changing environmental conditions.

Response: The overfished definition used by NMFS is consistent with the MSA. NMFS acknowledges that factors other than fishing mortality can reduce stock size below the MSST but NMFS believes the definition of overfished should not be altered. For stocks in a FMP, the MSA requires the Councils to rebuild the stock to a level consistent with producing the MSY regardless of the contributing factors. In most cases, the variation in relative contribution of environmental and fishing factors from year to year in reducing stock abundance is not known. When specifying SDC the Council is required to provide an analysis of how the SDC were chosen and how they relate to the reproductive potential of the stock. Specifically, the MSST should be expressed in terms of reproductive potential or spawning biomass. Furthermore, the stock assessment process can adjust the B_{msy} estimates and associated SDC due to environmental and ecological factors or changes in the estimates of reproductive potential, size/age at maturity, or other biological parameters.

Comment 30: Several comments suggested that NMFS should strike § 600.310(e)(2)(iii)(B) from the proposed action as it contradicts § 600.310(e)(2)(iii)(A) and could increase fishing pressure on a depleted stock by attributing low stock abundance to environmental conditions. Commenters criticized the requirement at § 600.310(e)(2)(iii)(B) that Councils ''must'' take action to modify SDC, and stated that there is little scientific evidence to show linkages between stock size and environmental conditions (citing to Restrepo *et al.* 1998 and NMFS. 2000. Endangered Species Act—Section 7 Consultation Biological Opinion and Incidental Take Statement). Commenters asserted that there is no statutory basis for this provision in the MSA and the legal standard for the word ''affect'' is vague and inadequate for ending overfishing. The comments stated that, in a time of anthropogenic climate change, stock dynamics are likely to change and by establishing this provision in the final action NMFS will undermine the statute's mandate to end overfishing. Commenters asserted that fisheries managers have and will respecify SDC to justify circumventing rebuilding targets, and the final guidelines should establish a high burden of proof to modify SDC due to changing environmental conditions or ''regime change'' (citing Fritz & Hinckley 2005).

Response: Section 600.310(e)(2)(iii) of this final action is essentially the same as text at § 600.310(d)(4) in the current NS1 guidelines, except for clarifications noted below. There is no change in the usage of ''must'' between the current guidance and this final NS1 guidance at § 600.310(e)(2)(iii). NMFS believes that the requirement of NS2, that conservation and management measures be based on the best available science, applies to the establishment of SDC. Therefore, in cases where changing environmental conditions alter the long-term reproductive potential of a stock, the SDC must be modified. As stocks and stock complexes are routinely assessed, long-term trends are updated with current environmental, ecological, and biological data to estimate SDCs. NMFS allows for flexibility in these provisions to account for variability in both environmental changes and variation in a stock's biological reaction to the environment.

The guidelines include language requiring a high standard for changing SDC that is consistent with NMFS Technical Guidance (Restrepo *et al.* 1998). NMFS outlines the relationship of SDC to environmental change in both the short and long-term in

§ 600.310(e)(2)(iii) of the final action. Total mortality of fish stocks includes many factors other than fishing mortality. Short-term environmental changes may alter the size of a stock or complex, for instance, by episodic recruitment failures, but these events are not likely to change the reproductive biology or reproductive potential of the stock over the long-term. In this case the Council should not change the SDC. Other environmental changes, such as some changes in ocean conditions, can alter both a stock's short-term size, and alter long-term reproductive biology. In such instances the Councils are required to respecify the SDC based on the best available science and document how the changes in the SDC relate to reproductive potential. In all cases, fishing mortality must be controlled so that overfishing does not occur. NMFS notes that, depending on the impact of the environmental change on the stock, failure to respecify SDC could result in overfishing, or could result in failure to achieve OY. In both cases, the fishery would not meet the requirements of NS1.

One change from § 600.310(d)(4) of the current NS1 guidelines occurs in § 600.310(e)(2)(iii)(A) of this final action. NMFS clarified that SDC ''should not'' rather than ''need not'' be changed if the long-term reproductive potential of a stock has not been affected by a changing environment. NMFS feels that this is consistent with setting a high standard for changing the SDC due to environmental changes. In addition, this action changes the phrase ''long-term productive capacity'' from the current NS1 guidance to ''long-term reproductive potential.'' NMFS believes the latter phrase is clearer and more accurately reflects the language in MSA section 303(a)(10).

Any changes to SDC are subject to Secretarial approval (§ 600.310(e)(2)(iv) of the final action), and the NS1 guidelines set a high standard for respecification of SDC due to environmental change. The Council must utilize the best available science, provide adequate rationale, and provide a basis for measuring the status of the stock against these criteria, and the SDC must be consistent with § 600.310(e)(2)(iii) of the final action. If manmade environmental changes are partially responsible for the overfished condition, the Council should recommend restoration of habitat and ameliorative programs in addition to curtailing fishing mortality.

Comment 31: NMFS received several comments that state that by requiring reference points to be point estimates NMFS is not acknowledging the uncertainty inherent in fishery management science. The comments expressed that the best way to incorporate uncertainty was to express SDCs as ranges and not point estimates.

Response: NMFS believes that uncertainty in SDC, OFL, and other fishing level quantities is best dealt with by fully analyzing the probability that overfishing will occur and that the stock might decline into an overfished condition, but we recognize that such a full analysis is not possible in many data-limited situations. When using a probability based approach, the distribution of probabilities includes a point estimate and it extends along a range. A probability based approach is already used in many rebuilding plans, for example, what fishing level will provide at least a 70% chance that the stock will be rebuilt in 10 years. NMFS scientists are working on a technical document that will describe some of the currently available methods to do such calculations, as well as some proxy approaches that could be used in situations where available data and methods do not allow calculation of the probability distributions.

Comment 32: NMFS received a number of comments regarding the proposed description of the relationship between ACT and OY—that achieving the ACT on an annual basis would, over time, equate to the OY. Comments requested more clarification, or did not agree with the described ACT–OY relationship.

Response: NMFS has revised the final action to remove the requirement that ACT be established, and instead discussed how targets, including ACT, function within the system of AMs to prevent the ACL from being exceeded. NMFS has also removed the discussion about the relationship of ACT to OY, based on the comments received. The full range of conservation and management measures for a fishery, which include the ACL and AM provisions, are required to achieve the OY for the fishery on a continuing basis. NMFS interprets the phrase ''achieving, on a continuing basis, the optimum yield for each fishery'' to mean producing from each stock or stock complex or fishery a long-term series of catches such that the average catch is equal to OY, overfishing is prevented, the long-term average biomass is near or above B_{msy}, and overfished stocks and stock complexes are rebuilt consistent with timing and other requirements of section 304(e)(4) of the MSA and § 600.310(j) of the final NS1 guidelines. NMFS notes that for fisheries where stock abundance is below the level that can produce the OY without the fishing mortality rate exceeding the MFMT, the annual yield will be less than the long-term OY level. In the case of an overfished fishery, ''optimum'' with respect to yield from a fishery means providing for rebuilding to a level consistent with producing the MSY in such fishery. When stock abundance is above B_{msy}, a constant fishing mortality control rule may allow the annual catch to exceed the long-term average OY without overfishing occurring, but frequent stock assessments need to be conducted to update the level of stock abundance.

Comment 33: One commenter stated that ''OY equates with the acceptable biological catch (''ABC''), which in turn is the level at which ACL should be set.'' Another commenter stated that, in specifying ACLs, a Council should not exceed MSY, because MSY—as opposed to ABC—is the ''fishing level recommendation'' that should not be exceeded per MSA 302(h)(6).

Response: MSA includes the terms ''fishing level recommendations,'' ''acceptable biological catch,'' and ''annual catch limits'' but does not define them. As such, NMFS has considered how to interpret these provisions in light of the statutory text and taking into consideration public comment during scoping and in response to the proposed NS1 guidelines. NMFS believes that ABC refers to a level of ''catch'' that is ''acceptable'' given the ''biological'' characteristics of the stock or stock complex. As such, OY does not equate with ABC. The specification of OY is required to consider a variety of factors, including social and economic factors, and the protection of marine ecosystems, which are not part of the ABC concept. The Councils determine the ACL, which may not exceed the fishing level recommendations of its science advisors. Of the several required SSC recommendations (MSA 302(g)(1)(B)), the ABC is most directly applicable as the constraint on the Council's ACL. Although MSY and ABC are both derived from a control rule, the ABC is the appropriate constraint on ACL because it is the annualized result of applying that control rule (thus is responsive to current stock abundance) whereas the MSY is the expected long-term average from a control rule. The Council should generally set the ACL lower than the ABC to take into account other factors related to preventing overfishing or achieving OY, or it may set the ACL equal to the ABC and take these additional factors into account when setting an ACT below the ACL.

Comment 34: Several commenters stated that NMFS's definition

framework for ACLs contains buffers that are not required by the Magnuson-Stevens Act and reduce or prevent the likelihood that OY can be achieved for a stock (Reducing a stock's OFL for scientific and management uncertainty, and OY factors results in too many reductions and makes it too difficult to achieve OY).

Response: NMFS believes that fisheries managers cannot consistently meet the requirements of the MSA to prevent overfishing and achieve, on a continuing basis, OY unless they address scientific and management uncertainty. The reductions in fishing levels that may be necessary in order to prevent overfishing should be only the amount necessary to achieve the results mandated by the MSA. Properly applied, the system described in the guidelines does not result in ''too many deductions,'' but rather, sets forth an approach that will prevent overfishing, achieve on a continuing basis OY, and incorporate sufficient flexibility so that the guidelines can be applied in different fisheries.

Comment 35: Several commenters suggested that NMFS clarify language to ensure that all aspects of fishing mortality (e.g., dead discards and post-release mortality) are accounted for in the estimates of ABC or when setting the ACL, and that all catch is counted against OY. NMFS also received comments that accounting for bycatch mortality in data poor situations should not be required.

Response: NMFS agrees that all sources of fishing mortality, including dead discards and post-release mortality from recreational fisheries must be accounted for, but believes that language in § 600.310(e)(3)(v)(C), (f)(2)(i) and (f)(3)(i) in both the proposed and final action sufficiently explains that catch includes fish that are retained for any purposes, mortality of fish that have been discarded, allocations for scientific research, and mortality from any other fishing activity. NMFS, however, disagrees that, when bycatch data is lacking, managers could ignore this known source of fishing mortality. Ignoring a known source of fishing mortality because data are lacking leads to underestimating catch. Unless this is factored in—for instance, as increased uncertainty leading to more conservative ABC and appropriate AMs (including ACT control rules)—overfishing could occur. NMFS's National Bycatch Report (due to be published in late 2008 or early 2009) provides comprehensive estimates of bycatch of fish, marine mammals, and non-marine mammal protected resources in major U.S. commercial fisheries. For instances where the National Bycatch Report does not provide bycatch data, NMFS suggests developing proxies based on National Bycatch Report bycatch ratios in similar fisheries until better data are available. For more information on the National Bycatch Report, *see http://www.st.nmfs.noaa.gov/st4/nop/Outreach/NBR_Factsheet_Final.pdf*. However, the decision about the best methodology for estimating bycatch should be made by the Council in consultation with its SSC, considering the best available scientific information.

Comment 36: One commenter requested clearer guidance for the specification of ABC and ultimately an ACL in cases where scientific uncertainty ''overwhelms'' the SSC's ability to make a valid ABC recommendation.

Response: The NS1 Guidelines recognize that precise quantitative assessments are not available for all stocks and some stocks do not have sufficient data for any assessment beyond an accounting of historical catch. It remains important to prevent overfishing in these situations, even though the exact level of catch that causes overfishing is not known. The overall guidance is that when stocks have limited information about their potential yield, harvest rates need to be moderated until such information can be obtained. Possible approaches include setting the ABC as 75% of recent average catch; see NMFS' Technical Guidance in Restrepo *et al.* (1998). NMFS is currently working on a report on control rules that will provide additional examples of possible approaches for data-limited situations as well as approaches that can use a better set of information.

Comment 37: ABC and ACT control rules should be revised to require consideration of life history characteristics (e.g., productivity, geographic range, habitat preferences, etc.) of a stock when setting control rules or catch limits.

Response: NMFS agrees that the productivity of stock, as well as the stocks susceptibility to the fishery should be considered when developing the ABC control rule. NMFS refers to these factors together as the vulnerability of stock, which is defined in § 600.310(d)(10) of the final action. The ABC control rule (see § 600.310(f)(4) of the final action) is based on scientific knowledge about the stock, which includes a stock's vulnerability to the fishery.

Regarding the ACT control rule, the final guidelines do not require that ACTs always be established, but provide that ACTs may be used as part of a system of AMs. When used, ACT control rules address management uncertainty, which is not related to the productivity of the stock. As noted in § 600.310(g)(3) of the final action, however, a Council could choose a higher performance standard (e.g., a stock's catch should not exceed its ACL more often than once every five or six years) for a stock that is particularly vulnerable to the effects of overfishing. In considering the performance standard, a Council should consider if the vulnerability of the stock has been accounted for in the ABC control rule, so as not to double count this type of uncertainty and provide unduly cautious management advice.

Comment 38: NMFS received comments requesting that text in § 600.310(f) of the proposed action be modified to clarify that ABC may not equal or exceed OFL; Councils are required to establish ABC control rules; the ABC and ACT control rules must stipulate the stock level at which fishing will be prohibited; and ACL cannot equal or exceed the ABC.

Response: NMFS does not agree that the guidelines should prohibit ABC from being equal to OFL, or ACL from being equal to ABC. NMFS has added text to the guidelines (§ 600.310(f)(3) and (f)(4)) to clarify that it believes that ABC should be reduced from OFL in most cases, and that if a Council recommends an ACL which equals ABC, and the ABC is equal to OFL, the Secretary may presume that the proposal would not prevent overfishing, in the absence of sufficient analysis and justification for the approach. NMFS agrees that an ABC control rule is required. NMFS does not agree, however, that the ABC and ACT control rules must stipulate the level at which fishing is prohibited. Here it is important to distinguish between setting an annual level of catch equal to zero because the stock biomass is low, from prohibiting landings for the remainder of a fishing year because the ACL has already been achieved. For the first type of prohibition, an ABC control rule could stipulate the level at which fishing is prohibited due to low stock biomass, but such a low level of biomass is likely to be below the MSST which will invoke development of a rebuilding plan with associated modification of the ABC control rule for the duration of the plan. NMFS, however, disagrees that the ACT control rule should have a similar stipulation as the primary function of this control rule is to account for management uncertainty and to serve as the target for inseason management actions.

Comment 39: NMFS received several comments that spatial-temporal management of ACLs should be employed as an integral part of effective catch-limit management. The commenters noted that apportioning ACLs by seasons and areas could reduce bycatch, protect sensitive habitats, reduce competition among fishery sectors, avoid localized and serial depletions of stocks, and ensure geographic and seasonal availability of prey to key predators.

Response: NMFS acknowleges that spatial and temporal considerations of fishery removals from a stock can be important. Many fisheries currently incorporate spatial and temporal considerations. However, in the context of NS1, these considerations would be relevant only if the overfishing definition or the OY definition for a stock included spatial or temporal divisions of the stock structure. NMFS believes the guidelines give Councils flexibility to consider spatial and temporal issues in establishing ACLs for a stock, and does not agree that the NS1 guidelines need to specifically address this issue. Apportioning ACLs by seasons and areas could be considered as Councils develop conservation and management measures for a fishery to meet the full range of MSA requirements, including the NS for basing conservation and management measures upon the best scientific information available (NS2); taking into account the importance of fishery resources to fishing communities to provide sustained participation and minimize adverse economic impacts (NS8); minimizing bycatch (NS9); and allocating fishing privileges among various U.S. fishermen that are fair and equitable, reasonably calculated, and carried out in such a manner that no particular entity acquires an excessive share of the catch (NS4).

Comment 40: NMFS received several comments about the role of the SSC in specifying ABC. Several commenters stated that the final ABC recommendation should be provided by the SSC (i.e., final peer review process), rather than an additional peer review process. Some commenters expressed concern that both the SSC and peer review process would recommend an ABC, leaving the Council to use the lower of the two recommended ABC values. One comment stated that the SSC should have the discretion to recommend an ABC that is different from the result of the control rule calculation in cases where there was substantial uncertainty or concern relating to the control rule calculated ABC.

Response: NMFS agrees that the SSC should provide the final ABC recommendation to their Council. In the preamble of the proposed NS1 revisions, NMFS acknowledged that the statutory language could be subject to different interpretations (*see* p. 32532 of 73 FR 32526; June 9, 2008). MSA refers to not exceeding fishing level recommendations of ''scientific and statistical committee or peer review process'' in one place and SSC recommendations for ABC and MSY in another place. Compare MSA sections 302(h)(6) and 302(g)(1)(B). Section 302(g)(1)(E) of the MSA provides that the Secretary and a Council may, but are not required to, establish a peer review process. NMFS feels that the Council should not receive ABC recommendations from two different sources (SSC and peer review). In order to avoid confusion, and in consideration of the increased role of SSCs in the MSA, NMFS believes that the SSC should provide the ABC recommendation and Councils should establish a clear process for receiving the ABC recommendation (as described in § 600.310(f)(3) of this action). The advance notice of proposed rulemaking (ANPR) (73 FR 54132; September 18, 2008) for potential revision of the National Standard 2 Guidelines includes consideration of the relationship between SSCs and peer review processes. NMFS believes the roles of the peer review process and the SSC complement each other. For example, a peer review process may conduct an extensive technical review of the details of each stock assessment. The SSC can then use the assessment document and its peer review, consider unresolved uncertainties, seek consistency with assessment decisions made for other stocks in the region, and arrive at an ABC recommendation. In addition, NMFS agrees that SSCs could provide an ABC recommendation that differed from the result of the ABC control rule calculation based on the full range of scientific information available to the SSC. The SSC would have explain why the recommendation differed from the calculated value. NMFS has added clarifying language into § 600.310(f)(3) of this action.

Comment 41: NMFS received a variety of comments on the role of the SSC and suggestions that the SSC role should be clarified. Comments included: There should be a mandatory peer review of significant SSC recommendations; the SSC should be directed to draw information and recommendations from the broadest possible range of scientific opinion; the SSC recommendation should include a discussion of alternative recommendations that were considered and alternative methodologies that were explored; what is the role of the SSC in providing recommendations for achieving rebuilding targets?; what is the SSC's role in providing ''reports on stock status and health, bycatch, habitat status, social and economic impacts of management measures and sustainability of fishing practices''?; the rule should clarify that the SSC is not charged with actually collecting the data and writing reports; the guidelines should specify the appropriate qualifications and membership of the SSCs and peer review process; the guidelines should specify the relative roles of the SSCs, peer review process, and Councils in establishing ACLs; the guidelines should specify the relative roles of NMFS, the Councils, the SSCs and the peer review process in selecting and evaluating AMs; NMFS should establish formal criteria for SSC membership, including formal training and/or experience in fisheries and/or ecological science or economics; NMFS should create oversight mechanisms and responsibility within NMFS to ensure that members are both qualified and acting in the public interest rather than representing stakeholders; NMFS should provide adequate training programs so that new members are well-prepared to meet these challenges; and NMFS should provide a mechanism for SSC members to identify and challenge political interventions, including potentially the development of a new scientific appeal function, staffed by a board of objective, external expert scientists.

Response: In developing the NS1 guidelines, NMFS focused on the SSC recommendation of the ABC as it is an important reference point for the Councils to use when developing ACLs. NMFS feels that the NS1 guidelines as proposed are clear in that the SSC provides the ABC recommendation and the Councils establish the ACLs. Both the ABC control rules and the ACT control rules could be developed with input from the SSC, Council, and peer review process as appropriate. NMFS believes that the NS1 guidelines adequately address the requirements for SSC recommendations that pertain to NS1. NMFS believes that other specific roles of the SSC would be more appropriately addressed in the National Standard 2 (NS2) guidelines.

Comment 42: Some commenters supported the proposed guidelines regarding the SSC, its relation to the Council, and provision of science advice such as ABC, but requested that the

guidelines further emphasize that managers follow the advice of their scientific advisors in all cases when setting catch limits. Other commenters opposed the provisions and stated that accounting for scientific uncertainty is a matter of policy, not science and therefore should be delegated to the Council. Instead, the commenters proposed that the SSC should be recommending the OFL and that the Council may not set an ACL in excess of the OFL as determined by the SSC.

Response: NMFS believes that determining the level of scientific uncertainty is not a matter of policy and is a technical matter best determined by stock assessment scientists as reviewed by peer review processes and SSCs. Determining the acceptable level of risk of overfishing that results from scientific uncertainty is the policy issue. The SSC must recommend an ABC to the Council after the Council advises the SSC what would be the acceptable probability that a catch equal to the ABC would result in overfishing. This risk policy is part of the required ABC control rule. The Council should use the advice of its science advisors in developing this control rule and should articulate the control rule in the FMP. In providing guidance on establishing a control rule for the ABC, NMFS recognizes that all estimates of the OFL are uncertain, and that in order to prevent overfishing with more than a 50 percent probability of success, the ABC must be reduced from the OFL. The guidance is clear that the control rule policy on the degree of reduction appropriate for a particular stock is established by the Council. To the extent that it results in the ABC being reduced from the OFL, the SSC is carrying out the policy established by the Council. NMFS disagrees that the SSC should recommend OFL and not ABC. The MSA specifies a number of things that make up the recommendations that SSCs provide to their Council including recommendations for ABC, preventing overfishing, MSY, achieving rebuilding targets, reports on stock status and health, bycatch, habitat status, social and economic impacts of management measures, and sustainability of fishing practices. Of these, the ABC is directly relevant as the fishing level recommendation that constrains the ACL.

Comment 43: One comment expressed that Councils must be allowed to specify information needed in the SAFE report.

Response: NMFS agrees. NMFS has removed the following sentence from § 600.310(b)(2)(v)(B) of the final action: ''The SSC may specify the type of information that should be included in the Stock Assessment and Fishery Evaluation (SAFE) report (see § 600.315).''

The contents of the SAFE report fall under the purview of the National Standard 2 (NS2) guidelines. NMFS is currently considering revising the NS2 guidelines, including modification of the language describing the content and purpose of SAFE reports. NMFS recently published an advance notice of proposed rulemaking (73 FR 54132; September 18, 2008) to revise the NS2 guidelines and encourages the public to provide comment.

Comment 44: One commenter believed the ACT should be a suggested component of a fishery management plan rather than a mandated component of an FMP. Although the ACT may clearly distinguish management uncertainty from other sources of uncertainty, adding a target does not fundamentally improve the process. It is more important to correctly adjust the ACL based on actual performance data than to create a separate target or ACT control rule based on theory to account solely for management uncertainty.

Response: The final guidelines do not require that ACTs always be established, but provide that ACTs may be used as part of a system of AMs. NMFS disagrees that a target does not fundamentally improve the process. ACL is to be treated as a limit—an amount of catch that the fishery should not exceed. The purpose of utilizing an ACT is so that, given uncertainty in the amount of catch that will result from the conservation and management measures in the fishery, the ACL will not be exceeded. Whether or not an ACT is explicitly specified, the AMs must address the management uncertainty in the fishery in order to avoid exceeding the ACL. ACLs are subject to modification by AMs.

Comment 45: One comment stated that the purpose of an ACT is to address ''management uncertainty'' which seems to be a very abstract and unquantifiable concept that the Councils are likely to struggle with.

Response: NMFS disagrees that management uncertainty is an abstract concept. It relates to the difference between the actual catch and the amount of catch that was expected to result from the management measures applied to a fishery. It can be caused by untimely catch data that usually prevents inseason management measures from being effective. Management uncertainty also results from underreporting, late reporting and misreporting and inaccurate assumptions about discard mortality of a stock in commercial and recreational fisheries. One way to estimate management uncertainty is to examine a set of annual actual catches compared to target catches or catch quotas for a stock. If all or most of the catches fall closely around their target catches and don't exceed the OFL then management uncertainty is low; if actual catches often or usually result in overfishing then the management uncertainty is high and should be accounted for when establishing the AMs for a fishery, which may include setting an ACT.

Comment 46: NMFS received several comments regarding scientific and management uncertainty. In general these comments included: Clarify the meaning of scientific uncertainty; clarify that some types of uncertainty may not be considered in the ABC control rule process; increase research efforts in order to deal with scientific uncertainty; provide flexibility in the guidelines regarding how the Councils deal with uncertainty; and recognize that recreational fisheries are unduly impacted by the guidelines due to delayed monitoring of catch.

Response: Scientific uncertainty occurs in estimates of OFL because of uncertainty in calculations of MFMT, projected biomass amounts, and estimates in F (i.e., confidence intervals around those parameter estimates). In addition, retrospective patterns in estimates of future stock biomass and F (i.e., biomass may be overestimated and F underestimated on a regular basis) occur in some stock assessments and should be accounted for in determining ABC. NMFS revised the guidelines to make clear that all sources of scientific uncertainty—not just uncertainty in the level of the OFL—must be considered in establishing the ABC, and that SSCs may incorporate consideration of uncertainty beyond that specifically accounted for in the ABC control rule, when making their ABC recommendation. Management uncertainty should be considered primarily in establishing the ACL and AMs, which could include ACTs, rather than in specification of the ABC.

Comment 47: The definition of ABC in § 600.310(f)(2)(ii) of the proposed rule provides that ABC is a level of catch ''that accounts for scientific uncertainty in the estimate of OFL'' and is specified based on the ABC control rule. Scientific uncertainty is not and should not be limited to the estimate of OFL. That restriction would make it more difficult to implement other appropriate methods for incorporating scientific uncertainty in other quantities such as distribution of long term yield.

Response: NMFS agrees. NMFS has revised §§ 600.310(f)(2)(ii), (f)(2)(iii),

and (f)(4) of the action to state that ABC accounts for scientific uncertainty in the estimate of OFL and other scientific uncertainty.

Comment 48: Several commenters stated that buffers, or margins of safety, need to be required between the overfishing level and annual catch limits to account for uncertainty, and that the final action should require the use of such buffers to achieve a high probability that overfishing does not occur. NMFS received comments suggesting that buffers between limit and target fishing levels reduce the chance that overfishing will occur and should be recognized as an accountability measure. Other commenters thought that the provision for setting ACT less than ACL meant that a Council has no discretion but to establish buffers. They said that while buffers may be appropriate in certain circumstances, they may also prevent achievement of OY in some circumstances.

Response: As noted elsewhere, NMFS has revised the final guidelines: they do not require that ACTs always be established, but provide that ACTs may be used as part of a system of AMs. The guidelines are intended only to provide Councils with direction on how the requirements of NS1 can be met, incorporating the requirement for ACLs and AMs such that overfishing does not occur. To prevent overfishing, Councils must address scientific and management uncertainty in establishing ABC, ACLs, and AMs. In most cases, some reduction in the target catch below the limit will result. NMFS does not believe that requiring buffers is appropriate, as there may be circumstances where that is not necessary to prevent overfishing. However, the guidelines require that AMs in a fishery be adequate to prevent ACLs from being exceeded, and that additional AMs are invoked if ACL is exceeded.

Comment 49: Some commenters stated that Councils needed flexibility to effectively tailor fishery management plans to the unique conditions of their fisheries, and that Councils should also have flexibility in how to account for scientific and management uncertainty.

Response: NMFS agrees that Councils should have flexibility, so long as they meet the requirements of the statute. ACLs to prevent overfishing are required, and management and scientific uncertainty must be considered and addressed in the management system in order to achieve that objective. NMFS also believes that Councils should be as transparent and explicit as possible in how uncertainty is determined and addressed, and believes the guidelines provide a good framework to meet these objectives.

Comment 50: One commenter supported NMFS' attention to scientific and management uncertainty, but thought that the better approach to deal with uncertainty is to reduce uncertainty. They stated that to accomplish this objective NMFS must increase its support for agency scientific research specific to stock assessments and ecosystem science.

Response: NMFS agrees. However, the processes proposed in the guidelines will address the current levels of uncertainty and accommodate reduced uncertainty in the future, as improvements in data are made.

Comment 51: Some commenters said that implementing ACLs would lead to economic disruption, particularly in the recreational fishing sector, because of a large degree of management uncertainty. One commenter cited difficulties in obtaining timely and accurate data, particularly for recreational fisheries, and asked if recreational allocations would have to be reduced due to delays in obtaining recreational harvest estimates.

Response: Preventing overfishing is a requirement of the MSA. The ACL mechanisms and AMs for a fishery must be adequate to meet that requirement, and in some cases, reductions in catch levels and economic benefits from a fishery may result. The specific impacts of implementing ACLs in a fishery will be analyzed when the ACLs are established in an FMP.

Comment 52: One commenter stated that the guidelines would require reducing catches well below existing OY levels, and that many species are known to be fished at low levels which are highly unlikely to lead to overfishing. They stated that this is inconsistent with responsible marine management and seems unlikely to represent the intent of Congress.

Response: Nothing in the guidelines would require a reduction in fishing if, in fact, the stocks are fished at low levels which are highly unlikely to lead to overfishing, and this conclusion is supported by science.

Comment 53: One commenter asked if OY could be specified for a fishery or a complex, or if the guidelines would require specification of OY for each species or complex.

Response: The guidelines provide that OY can be specified at the stock, stock complex or fishery level.

Comment 54: NMFS received several comments both supporting and opposing the use of inseason AMs (§ 600.310(g) of the proposed action). The commenters that supported the use of inseason AMs typically suggested that the Councils and NMFS improve their capability to use inseason AMs and/or that NMFS must make inseason closure authority a required element of FMPs. Opponents of inseason AMs commented that it is more reasonable to implement AMs after reviewing annual fishery performance data; there is no requirement in the law to impose inseason measures; inseason closures without individual transferable quotas will generate derby fisheries; and the requirement to use inseason AMs whenever possible would be difficult where monitoring data is not available.

Response: MSA provides for ACLs to be limits on annual catch, thus it is fully appropriate and consistent with the Act that available data be utilized to prevent ACLs from being exceeded. Conservation and management measures for a fishery should be designed so that ACLs are not routinely exceeded. Therefore, FMPs should contain inseason closure authority giving NMFS the ability to close fisheries if it determines, based on data that it deems sufficiently reliable, that an ACL has been exceeded or is projected to be reached, and that closure of the fishery is necessary to prevent overfishing. NMFS believes that the alternative result, which is that data are available inseason that show an ACL is being exceeded, but no management action is taken to prevent overfishing, would not meet the intent of the MSA. The MSA requires ACLs in all fisheries. It does not provide an exemption based on a concern about derby fishing. NMFS has modified the language in § 600.310(g)(2) of this action to indicate that ''For fisheries without inseason management control to prevent the ACL from being exceeded, AMs should utilize ACTs that are set below ACLs so that catches do not exceed the ACL.''

Comment 55: NMFS received some comments that generally expressed that AMs will be difficult to implement and that the provisions need to be clarified. Comments included: if an ACL is exceeded, a review by the Council must occur before implementation of the AMs; the Council must examine the ''problem'' that caused the overage—which means nothing will happen quickly; and it is not clear what ''biological consequences'' means in § 600.310(g)(3) of the proposed action.

Response: As proposed, AMs are management measures designed to prevent an ACL from being exceeded, as well as measures to address an overage of an ACL if it does occur. NMFS recommends that, whenever possible, Councils implement AMs that allow inseason monitoring and adjustment of

the fishery. The AMs should consider the amount of time required for a Council to conduct analyses and develop new measures. In general, AMs need to be pre-planned so they can be effective/available in the subsequent year, otherwise, there could be considerable delay from the time that an overage occurs to the time when measures are developed to address the overage. Not all overages may warrant the same management response. Consider hypothetically the example of a fishery for which a 3 fish bag limit with 16 inch minimum size is expected to achieve the target catch level without exceeding the ACL. For such a fishery, the Council might implement AMs such that, if the catch was under the ACL or exceeded it by less than 5 percent, the same bag and size limits would apply the following year. If the ACL was exceeded by 5–25 percent, the bag limit the following year would be reduced to 2 fish, and if the ACL was exceeded by more than 25 percent the bag limit would be reduced to 1 fish. The AMs could also address a situation where catch was below the target level, indicating that the initial measures might be too strict. The objective is to have pre-planned management responses to ACL overages that will be implemented in the next season, so that flawed management measures do not result in continuing overages for years while Councils consider management changes. An FMP must contain AMs (see § 600.310(c)(5) of the final action). However, NMFS believes that the FMP could contain more general framework measures and that specific measures, such as those described hypothetically above, could be implemented through harvest specifications or another rulemaking process.

By ''biological consequences,'' NMFS means the impact on the stock's status, such as its ability to produce MSY or achieve rebuilding goals. For example, if information was available to indicate that, because of stronger than expected recruitment, a stock was above its B_{msy} level and continued to grow, even though the ACL was exceeded for the year, that could indicate that the overage did not have any adverse biological consequences that needed to be addressed through the AM. On the other hand, if the ACL for a long lived stock with low reproductive potential was exceeded by 100 percent, AMs should be responsive to the likelihood that some long-term harm to the stock may have been caused by the overage.

Comment 56: One commenter expressed concern about the term ''re-evaluated'' in §§ 600.310(g)(3) and (g)(4) in the proposed action. They stated that this could imply that Councils simply have to increase ACLs when they have ACL exceedances, and suggested that, if catch exceeds ACL more than once in last four years, there should be automatic buffer increases in setting ACL below OFL to decrease likelihood of exceeding ACL.

Response: If the performance standard is not met, the Councils must re-evaluate the system of ACLs and AMs, and modify it if necessary so that the performance standard is met. Since the ACL cannot exceed the ABC recommended by the SSC, NMFS does not believe that the scenario described by the commenter would arise. NMFS also does not believe that the guidelines should recommend automatic buffer increases in this case. The specific factors that caused the performance standard to not be met need to be analyzed and addressed. NMFS also notes that, in addition to this re-evaluation of the system of ACLs and AMs, AMs themselves are supposed to prevent and address ACL overages.

Comment 57: Several comments were received related to accountability measures for when catch exceeds the ACL. Some comments supported the concept that a full payback of ACL overages should be required for all stocks. Comments included: Overage deductions should be normal business for rebuilding and healthy stocks alike; NMFS should require all overages to be accounted for in full for all managed fisheries no later than when the ACL for the following fishing year is determined; and overage deductions must be viewed as an independent requirement from actions geared to preventing overages from occurring in the future, such as modifications of management measures or changes to the full system of ACLs, ACTs, and AMs.

Response: MSRA is silent with regard to mandatory payback of ACL overages. However, in developing the ACL provisions in the MSRA, it appears that Congress considered mandatory paybacks and did not include that requirement in the MSRA. NMFS believes that paybacks may be an appropriate AM in some fisheries, but that they should not be mandated, but rather considered on a case by case basis for stocks and stock complexes that are not in a rebuilding plan.

Comment 58: Several comments opposed the concept of an overage adjustment when catch exceeds the ACL for stocks that are in rebuilding plans (§ 600.310(g)(3) of the proposed action). Comments included: The MSA does not require this, this provision was removed from the drafts of the MSRA, and a full ''payback'' the following year may be unnecessary. Other comments supported the concept but wanted to strengthen § 600.310(g)(3) of the guidelines to remove text that stated: ''unless the best scientific information available shows that a reduced overage adjustment, or no adjustment, is needed to mitigate the effects of the overages.''

Response: NMFS believes that more stringent requirements for AMs are necessary for stocks in rebuilding plans. MSA 304(e)(3) provides that, for overfished stocks, an FMP, FMP amendment, or proposed regulations are needed to end overfishing immediately in the fishery and rebuild overfished stocks. There are a number of examples where failure to constrain catch to planned levels early in a rebuilding plan has led to failure to rebuild and the imposition of severe catch restrictions in later years in order to attempt to meet the required rebuilding timeframe. Thus, for rebuilding stocks, NMFS believes that an AM which reduces a subsequent year's ACL by the amount of any overage is appropriate, and will help prevent stocks failing to rebuild due to annual rebuilding targets being exceeded. NMFS does provide that if there is an analysis to show that all or part of the deduction is not necessary in order to keep the stock on its rebuilding trajectory, the full overage payback is not necessary. For example, an updated stock assessment might show that the stock size has increased faster than expected, in spite of the overage, and that a deduction from the subsequent ACL was not needed. For most rebuilding stocks, assessments cannot be updated annually, and in the absence of such analytical information, NMFS believes that the guideline provision is necessary to achieve rebuilding goals for overfished stocks.

Comment 59: Some commenters expressed support for the AMs as proposed and agreed that AMs should prevent catch from exceeding the ACL and address overages if they should occur. Other commenters suggested that AMs should be tied to overfishing or that AMs should be triggered when catch exceeds the ABC (as opposed to the ACL). Some commenters expressed that the MSA does not require the application of AMs if the ACL is exceeded.

Response: In developing the guidelines, NMFS considered using OFL or ABC as a point at which mandatory AMs should be triggered. However, NMFS believes that Congress intended the ACL to be a limit, and as such, it should not be exceeded. In addition, ''measures to ensure accountability'' are required in association with the ACL in MSA section 303(a)(15). Therefore, it is

most appropriate to apply AMs if the ACL is exceeded. In addition, the purpose of ACLs is to prevent overfishing, and AMs triggered at the ACL level should be designed so that the ABC and OFL are not exceeded.

Comment 60: Several comments were received regarding the proposed performance standards. The performance standard that NMFS proposed in the proposed action stated that: ''If catch exceeds the ACL more than once in the last four years, the system of ACLs, ACTs and AMs should be re-evaluated to improve its performance and effectiveness.'' In cases where AMs are based on multi-year average data, the proposed performance standard stated: ''If average catch exceeds the average ACL more than once in the last four years, then the ACL, ACT and AM system should be re-evaluated.'' The commenters that supported the proposed performance standard suggested that it would allow the Council more flexibility in the management of their fisheries with ACLs. Commenters that disliked the proposed performance standard suggested that the Councils should have more flexibility in determining the performance standards, expressed concerns that the performance standard may not be precautionary enough, or expressed that it was arbitrary.

Response: NMFS believes it is important to establish a performance standard to establish accountability for how well the ACL mechanisms and AMs are working that is consistent across all Councils and fisheries. NMFS believes that ACLs are designed to prevent overfishing and that it is important to prevent catches from exceeding ACLs. NMFS also believes that, given scientific and management uncertainty, it is possible that catch will occasionally exceed ACL for a given stock or stock complex. However, it would be unacceptable to allow catch to continually exceed ACL. Therefore, NMFS proposed the performance standard to allow for some flexibility in the management system but also prevent overfishing. It should not limit a Council from establishing stronger performance measures, or from reevaluating their management measures more often. Notwithstanding the performance standard, if, at any time, a Council determines that the conservation and management measures for a fishery are not achieving OY while preventing overfishing, it should revise the measures as appropriate.

Comment 61: Several comments were received that suggested that fishery managers should or be required to re-evaluate the system of ACLs, ACT and AMs every time catch exceeds ACL. In addition, some expressed that NMFS should make clear that the ''reevaluation'' called for in the proposed action does not authorize simply raising ACLs or other numeric fishing restrictions in order to avoid the inconvenient fact that they have been exceeded.

Response: NMFS does not agree that a re-evaluation of the entire system of ACLs and AMs should be required every time an ACL is exceeded. If catch exceeds ACL in any one year, or if the average catch exceeds the average ACL, then AMs will be implemented and they should correct the operational issues that caused the overage, as well as any biological consequences resulting from the overage. Councils should be allowed the opportunity to see if their AMs work to prevent future overages of the ACL.

Comment 62: NMFS received comments that requested clarification or changes to the proposed performance standard. For example, one commenter suggested that NMFS should require a higher performance standard for vulnerable stocks. Two commenters expressed that the performance standard should apply at the stock or stock complex level as opposed to the fishery or FMP level. Another commenter questioned if the performance standard was if catch exceeds the ACL more than once in the last four years or if average catch exceeds the average ACL more than once in the last four years. NMFS also received some comments about the phrase ''to improve its performance and effectiveness'' in paragraph § 600.310(g)(3) of the proposed action. Those comments included: The phrase does not make sense in this context, because simply re-evaluating a system cannot improve its performance or effectiveness (only changing a system can do so); and use of this phrase in § 600.310(g)(3) is inconsistent with a similar sentence in paragraph § 600.310(g)(4) of the proposed action, where the same requirement is expressed, but this phrase does not appear.

Response: NMFS stated in the preamble of the proposed guidelines that a Council could choose a higher performance standard for a stock that is particularly vulnerable to the effects of overfishing. While NMFS agrees that a higher performance standard could be used for a stock or stock complex that is particularly vulnerable, NMFS believes the discretion to use a higher performance standard should be left to the Council. To reiterate this point, NMFS is adding additional language in § 600.310(g)(3) of the final action. NMFS intended that the performance standards would apply at the stock or stock complex level and is adding additional clarifying language in the regulatory text. The National Standard 1 guidelines as proposed offered two performance standards, one applies when annual catch is compared to the ACL for a given stock or stock complex, as described in paragraph § 600.310(g)(3) of this action, the other performance standard applies in instances when the multi-year average catch is compared to the average ACL, as described in § 600.310(g)(4) of this action. NMFS intended that in both scenarios, if the catch exceeds the ACL more than once in the last four years, or if the average catch exceeds the average ACL more than once in the last four years, then the system of ACLs and AMs should be re-evaluated and modified if necessary to improve its performance and effectiveness. NMFS has modified language to § 600.310(g)(3) and (4) of this action to clarify this issue.

Comment 63: NMFS received several suggestions to require a specific and high probability of success in either preventing overfishing, preventing catch from exceeding the ACL, or achieving the ACT. Comments included: The rule should make clear that management measures must have a high probability of success in achieving the OY or ACT; we recommend a probability of at least eighty percent of achieving the OY or ACT; NMFS should establish a performance standard that defines low risk, as well as an acceptable probability of successfully managing catch levels of 90 percent; National Standard guidelines should explicitly define the maximum acceptable risk of overfishing. One commenter cited to several court cases (NRDC v. Daley, Fishermen's Dock Coop., and Coastal Conservation Ass'n) and stated that the ACT control rule should be revised to state that the risk of exceeding the ACL due to management uncertainty is no greater than 25 percent.

Response: Considering and making appropriate allowances for uncertainty in science and management is emphasized in the NS1 guidelines. NMFS believes that, if this is done, ACLs will not often be exceeded, and when they are, the overages will typically be small and will not jeopardize the status of the stock. Fisheries where ACLs are exceeded regularly or by large amounts should be quickly modified to improve the measures.

During the initial scoping period, NMFS received many comments on the topic of setting a specific probability of success; some commenters expressed that a 50 percent probability of success is all that is legally required, while other

commenters expressed that the probability of success should be higher (e.g. 75 or 100 percent). When developing the definition framework of OFL, ABC, ACL, and ACT, NMFS considered including specific probabilities of success regarding preventing overfishing or preventing catch from exceeding ACL. NMFS did not specify a particular probability in the NS1 guidelines, for a number of reasons. NMFS did not believe it had a basis for picking a specific probability number that would be appropriate for all stocks and stock complexes in a fishery. Councils should analyze a range of alternatives for the probability that ACL will not be exceeded or that overfishing will not occur. NMFS recognizes that fisheries are different and that the biological, social and economic impacts of managing at a specific probability will differ depending on the characteristics of the fishery. NMFS also recognizes that it is not possible to calculate a probability of success in many fisheries, due to data limitations.

NMFS does not believe that MSA and relevant case law require use of specific probabilities. However, a 50 percent probability of success is a lower bound, and NMFS believes it should not simply be used as a default value. Therefore, in § 600.310(f)(4) of the final action, NMFS states that the determination of ABC should be based, when possible, on the probability that catch equal to the stock's ABC would result in overfishing, and that this probability cannot exceed 50 percent and should be a lower value.

To determine if the system of ACLs was working adequately, NMFS decided to establish a performance standard in terms of the frequency that ACLs were exceeded. The comparison of catch to an ACL is a simpler task than calculating a probability of success, and can be applied to all fisheries, albeit some fisheries have more timely catch data than others. This does not preclude the Councils from using the probability based approach to setting limits and targets in their fisheries if they are able to do so.

Comment 64: Several comments were received urging NMFS to either require or encourage the use of sector ACLs and AMs and hold each sector accountable. Comments expressed that to provide the right incentives for conservation, catch reductions and increases must be tied to compliance and performance in adhering to ACLs. One commenter stated that MSA 303(a)(14) compels distinct ACLs and AMs for each sector due in part to the variation in management uncertainty among sectors. Sector management should be required in FMPs to ensure equitable treatment for all stakeholder groups including harvest restrictions and benefits to each sector.

Response: Separate ACLs and AMs for different fishery sectors may be appropriate in many situations, but the Councils should have the flexibility to determine this for each fishery. The decision to use sectors should be at the discretion of each Council. NMFS agrees that, if Councils decide to use sectors, each sector should be held accountable if catches for a sector exceed sector-ACLs. In addition, the NS1 guidelines provide that the ACL/AM system must protect the stock or stock complex as a whole. NMFS does not believe that MSA necessarily compels use of sector ACLs and AMs, thus the final action does not require their use. However, in developing any FMP or FMP amendment, it is important to ensure consistency with MSA 303(a)(14), NS 4, and other MSA provisions. Section 303(a)(14) pertains to allocation of harvest restrictions or recovery benefits fairly and equitably among commercial, recreational, and charter fishing sectors. NS 4, in part, pertains to fair and equitable allocations.

Comment 65: Some commenters expressed that managing recreational fisheries with ACLs and AMs will be difficult as they typically lack timely data. Comments included: The initiative to set ACLs and AMs for any fishery that has a recreational component cannot be done and any attempt will be arbitrary at best; in-season management is impractical in most recreational fisheries; current data collection programs used to evaluate recreational fishing activity do not offer a level of confidence to fisheries managers or fishermen to implement ACL in the recreational sector; and NMFS should improve recreational data collection to a level where inseason management is possible.

Response: NMFS acknowledges that recreational fisheries often do not have timely catch data and that is why NMFS suggested the multi-year averaging provision for AMs. NMFS and the Council still need to meet the mandate of the MSA and have ACLs for all fisheries. NMFS is developing a new data collection program for recreational fisheries to improve the data needed to implement the new provisions of the MSA.

Comment 66: Some commenters suggested that for recreational fisheries, catch limits should be expressed in terms of fishing mortality rates or in terms of numbers of fish instead of pounds of fish.

Response: NMFS intends that ACLs be expressed in terms of weight or numbers of fish. In fact, the definition of ''catch'' in the proposed guidelines indicates that catch is measured in weight or numbers of fish. NMFS disagrees that ACL can be expressed in terms of fishing mortality rates. While conservation and management measures for a fishery can be designed to achieve a target fishing mortality rate, the fishing mortality rates that are achieved can only be estimated by performing a stock assessment. Stock assessments usually lag the fishery by a year or more, and are not suitable as the basis for ACL accountability measures.

Comment 67: One commenter suggested that when recreational fisheries account for a significant portion of the catch, the buffers should be correspondingly larger to account for the management uncertainty.

Response: NMFS believes that management uncertainty should be addressed in all fisheries. Accountability measures may include an ACT set below the ACL based on the degree of uncertainty that the conservation and management measures will achieve the ACL. This applies to all fisheries, commercial or recreational.

Comment 68: NMFS received a few comments expressing that Councils should have flexibility when specifying AMs.

Response: NMFS agrees and believes that the guidelines provide this flexibility.

Comment 69: AMs should be approved by the Secretary of Commerce, should be subject to regular scientific review, and should provide opportunities for public comment; performance must be measurable and AMs must be modified if not working; AMs should be reviewed annually as part of the catch specification process.

Response: AMs will be implemented through public processes used for amending FMPs and implementing regulations. There is no need for additional guidance in the NS1 guidelines.

Comment 70: NMFS received comments that support the use of AMs based on comparisons of average catch to average ACL, if there is insufficient data to compare catch to ACL, either inseason or on an annual basis. In recreational fisheries, the use of a three-year rolling average ACL would moderate wild swings in ACLs due to variable fishing conditions and participation from year to year. Flexibility, such as the use of a multi-year average for the recreational sector, is needed due to limitations in the data collection. However, some commenters

expressed concerns about using the multi-year averaging approach and stated that it should be used rarely. In order to use such an approach, Councils should provide clear and compelling reasons in their FMPs as to why the use of multi-year average data are necessary and a plan for moving the fishery to AMs based on annual data. The guidelines should make it clear that AMs will be triggered annually in cases where the average catch exceeds the average ACL. NMFS should engage its quantitative experts in an investigation of the performance of using multi-year averages for managing highly variable fisheries with poor inseason data. Until such results are available, NMFS should use annual statistics for management of all fisheries, including those involving highly variable stocks or catch limits.

Response: Use of AMs based on comparison of average catch to average ACL is only appropriate in a limited number of fisheries, such as fisheries that have high variability in the estimate of total annual catch or highly fluctuating annual catches and no effective way to monitor and control catches inseason. NMFS intends that a comparison of the moving average catch to the average ACL would be conducted annually and that AMs would be implemented if average catch exceeds the average ACL. If the average catch exceeds the average ACL more than once in the last four years, then the system of ACLs and AMs should be re-evaluated and modified if necessary to improve its performance and effectiveness. NMFS agrees that the Council should analyze and explain why they are basing AMs on multi-year averaged data. NMFS has added clarifying language to § 600.310(g)(4) of the final action to make these points clear. Future improvements in data and management approaches should also be pursued so that true annual accountability for catch can be achieved. In addition, NMFS believes that AMs such as the use of ACT may be appropriate in fisheries that use the multi-year averaging approach.

Comment 71: Several comments were received regarding ACLs and AMs for fisheries that occur partly in state waters. Some comments stated that accountability measures for State-Federal fisheries could use further elaboration and should specifically address fisheries where management had been delegated to the state. Some commenters supported separate ACLs and AMs for Federal and state portions of the fishery, while others wanted combined overall ACLs and AMs. Some comments disagreed that closure of Federal waters while fishing continues in non-Federal waters is a preferred option, and that efforts should be made to undertake cooperative management that allows coordinated responses.

Response: When stocks are co-managed by Federal, state, tribal, and/or territorial fishery managers, the goal should be to develop collaborative conservation and management strategies to prevent overfishing of shared stocks and ensure their sustainability. NMFS encourages collaboration with state managers to develop ACLs and AMs that prevent overfishing of the stock as a whole. As FMPs currently consider whether overfishing is occurring for a stock or stock complex overall, NMFS thinks it is appropriate to specify an overall ACL for the stock or stock complex. This ACL could be subdivided into state and Federal ACLs, similar to the approach used for sector-ACLs. However, NMFS recognizes that Federal management authority is limited to that portion of the fishery under Federal jurisdiction and therefore the NS1 guidelines only require AMs for the Federal fishery. The AMs could include closing the EEZ when the Federal portion of the ACL is reached, closing the EEZ when the overall stock or stock complex's ACL is reached, or other measures. NMFS recognizes the problem that may occur when Federal fisheries are closed but fishing continues in state waters. NMFS will continue to work with states to ensure consistency and effectiveness of management measures. If Councils delegate management under an FMP to the states, the FMPs still need to meet the requirements of the MSA, including establishment of ACLs and AMs.

Comment 72: One commenter asked, in the case where ACLs are exceeded because of the regulatory failures of one state, if other states in the Council's or the Atlantic States Marine Fisheries Commission's (ASMFC) area of jurisdiction be affected through mandatory AMs. Barring state-by-state allocations for all species (as with summer flounder), the proposed regulations could punish commercial fishermen and anglers in all states in a region.

Response: The guidelines acknowledge that NMFS and the Councils cannot mandate AMs on state fisheries. However, NMFS encourages collaboration between state and Federal managers to develop ACLs and AMs to prevent overfishing for the stock as a whole. In cases where there is collaboration, accountability measures for the fishery should be designed to address this issue. Specific AMs that may be needed would have to be evaluated and addressed on a case-by-case basis.

Comment 73: NMFS received a question regarding the meaning of the phrase ''large majority'' in § 600.310(g)(5) of the proposed action. NMFS had stated that: ''For stocks or stock complexes that have a large majority of harvest in state or territorial waters, AMs should be developed for the portion of the fishery under Federal authority and could include closing the EEZ when the Federal portion of the ACL is reached, or the overall stock's ACL is reached, or other measures.'' The commenter stated that the meaning of the term ''large majority'' and its importance is not clear and should therefore be eliminated.

Response: NMFS agrees that ACL and AMs need to be established for all stocks and stock complexes in Federal fisheries regardless of the whether a large majority of harvest occurs in state waters. NMFS agrees the amount, *i.e.*, ''large majority,'' is not pertinent to this provision. Therefore, § 600.310(f)(5)(iii) and (g)(5) have been revised in the final action.

Comment 74: NMFS received several comments noting that NMFS should require or recommend the use of limited access privilege programs (LAPPs) or catch shares by Councils in the final rule. Many commenters referenced an article on catch shares (Costello *et al.* 2008).

Response: The article cited above and other articles note the potential benefits of LAPPs. NMFS supports use of LAPPs, and believes they can be a beneficial approach to use in implementing effective ACLs. However, while ACLs are required in all fisheries, under the MSRA, LAPPs are optional and at the discretion of each Council. NMFS does not have authority to require Councils to use LAPPs, but is currently developing guidelines on LAPPs that will be published for public comment in the future.

Comment 75: One comment requested that NMFS expand the concept of accountability measures to include effective catch monitoring, data collection and analysis, and enforcement. The commenter suggested that for accountability measures that are not LAPPs, managers should demonstrate how the measures will ensure compliance with the ACLs as well as improve data and enforcement, reduce bycatch, promote safety, and minimize adverse economic impacts at least as well as LAPPs.

Response: NMFS agrees that catch monitoring, data collection and analysis, and enforcement are all important to consider in developing

AMs for a fishery and believes the guidelines are adequate. Under § 600.310(i) of the final action, FMPs, or associated documents such as SAFE reports, must describe data collection methods. In addition, § 600.310(g)(2) of the final action, states that whenever possible, inseason AMs should include inseason monitoring and management measures to prevent catch from exceeding ACLs. NMFS believes the guidelines are clear that catch monitoring data is very important to consider when Councils establish their AMs. Councils are already directed to: minimize adverse economic impacts under National Standard 8; minimize bycatch and bycatch mortality under National Standard 9; and promote safety of human life at sea under National Standard 10. *See* MSA 301(a)(8), (9), and (10) (setting forth specific requirements of the national standards).

Comment 76: NMFS received comments expressing concern about establishing ACL and AM mechanisms in FMPs. One commenter expressed concern that if ACL and AM mechanisms were located in the FMP, it would require a multi-year process to change any measure. They instead suggested that Councils should have the ability to framework the mechanisms and establish an annual or multi-year process for making adjustments. Another commenter suggested that Councils should be required to modify their SOPPs to incorporate a mechanism for specifying ACLs and reviewing AMs annually through regular catch specification procedures. NMFS received another comment that disagreed with the idea that the Council's SOPPs are the proper place to describe the process for establishing ABC Control Rules, including the role of SouthEast Data Assessment and Review (SEDAR) and the SSC. This commenter recommended instead that ABC Control Rules be included in Fishery Management Plans and have the ability to refine management through framework actions.

Response: The FMP needs to contain the ACL mechanisms and AMs, as they are part of the conservation and management measures for the fishery. The ACL mechanisms and AMs can contain framework provisions and utilize specification processes as appropriate. NMFS does not agree that the ACL and AM mechanisms should be established in the SOPPs. Also, NMFS never intended that ABC control rules would be described in the SOPPs and agrees that the ABC control rules should be described in the Fishery Management Plans. However, it is important to understand how the Councils, SSC, and peer review process work together to implement the provisions of the MSA, and that can be explained in the SOPPs, FMP, or some other document.

Comment 77: NMFS received several comments supporting the exception to the ACL rule for stocks with a life cycle of approximately one year. Commenters asked for a list of species which fit the exception, specific guidance on how to set ACLs for these stocks if they become overfished, and expansion of the exception to species with a two year life cycle.

Response: Due to their unique life history, the process for setting ACLs does not fit well for stocks which have a life cycle of approximately one year. The exception for species with an annual life cycle allows flexibility for Councils to use other management measures for these stocks which are more appropriate for the unique life history for each stock and the specifics of the fishery which captures them. NMFS believes that the final guidance should not include a list of stocks which meets these criteria; this is a decision that is best made by the regional Councils. Even though ACLs are not required for these stocks, Councils are still required to estimate other biological reference points such as SDC, MSY, OY, ABC and an ABC control rule. However, the MSA limits the exception and clearly states that if overfishing is occurring on the stock, the exception can not be used, therefore ACLs would be required. MSA only provided for a 1-year life cycle exception, thus NMFS cannot expand the exception to two years. Section (h)(3) of the final action acknowledges that there may be circumstances when flexibility is needed in applying the NS1 guidelines. Whether such flexibility is appropriate for certain two year life cycle species would have to be considered on a case-by-case basis.

Comment 78: NMFS received many comments expressing different interpretations of the MSA's ACL international exception. Some commented that the exception only pertains to the 2010/2011 timing requirement. If fisheries under international agreements were intended to be exempt from ACLs, Congress could have drafted the exception to say that ACLs ''shall not apply'' to such fisheries, similar to language used in the one-year life cycle exception. Several comments stated that by requiring ACLs for U.S. fishermen, the U.S. would be in a better bargaining position in international fora by taking the ''higher ground.'' Others agreed with the exception as set forth in the proposed guidelines but requested clarification. For example, one comment was that the exception should be expanded to cover the US/Canada Resource Sharing Understanding and other arrangements that may not be formal international agreements. Other suggestions included clarifying that the exception applied where a regional fishery management organization had approved a stock assessment, where there were conservation and management measures under an international agreement, or where there were annual catch limits established under international agreement consistent with MSA overfishing and rebuilding requirements.

Response: The ACL international exception is set forth in an uncodified note to MSA section 303. MSRA, Public Law 109–479 section 104(b)(1). The text is vague, and NMFS has spent considerable time looking at different possible interpretations of this text in light of the plain language of the text, public comments, and other relevant MSA provisions. NMFS agrees that one possible interpretation, in light of the text of the one-year life cycle exception (MSRA section 104(b)(2)), is that stocks under international management are only exempt from timing requirements. However, Congress added significant new requirements under the MSRA regarding international fisheries, thus NMFS has tried to interpret the exception in light of these other statutory provisions.

In many fisheries, the U.S. unilaterally cannot end overfishing or rebuild stocks or make any measurable progress towards those goals, even if it were to stop all U.S. harvest. Thus, it has signed onto various treaties and negotiates binding, international conservation and management measures at regional fishery management organizations (RFMOs) to try to facilitate international efforts to end overfishing and rebuild overfished stocks. MSRA acknowledged the challenges facing the United States in international fisheries by, among other things, including a new ''International Overfishing'' section (MSA section 304(i)) that refers domestic regulations to address ''relative impact'' of U.S. vessels; changes to highly migratory species provisions (MSA section 102(b)–(c)); and amendments to the High Seas Driftnet Fishing Moratorium Protection Act, 16 U.S.C. 1826h–1826k, to encourage strengthening of RFMOs and establish a process for identification and certification of nations whose vessels engage in illegal, unreported or unregulated (IUU) fishing and bycatch of protected living marine resources.

While NMFS actively communicates and promotes MSA requirements regarding ending overfishing and rebuilding overfished stocks at the international level (*see*, *e.g.*, MSA section 102(c)), it is unlikely that RFMOs will adopt ACL/AM mechanisms as such mechanisms are understood and required in the context of U.S. domestic fisheries. Given the practical problem of ensuring the U.S. could negotiate such mechanisms, and Congress' clear recognition of U.S. fishing impact versus international fishing effort, NMFS believes that a reasonable interpretation of the exception is that it should apply to the ACL requirement, not just the effective date. If ACLs were required, a likely outcome is that U.S. fishermen may be subject to more restrictive measures than their foreign counterparts, *e.g.*, each country may be assigned a catch quota but the U.S. portion may be subject to further restriction below the assigned amount. Further, requiring ACLs may raise potential conflicts with implementing legislation for some of the international fishery agreements.

NMFS believes that the intent of MSRA is to not unfairly penalize U.S. fishermen for overfishing which is occurring predominantly at the international level. In many cases, applying ACL requirements to U.S. fishermen on just the U.S. portion of the catch or quota, while other nations fished without such additional measures, would not lead to ending overfishing and could disadvantage U.S. fishermen. The guidance given for the international exception allows the Councils to continue managing the U.S. portion of stocks under international agreements, while the U.S. delegation works with RFMOs to end overfishing through international cooperation. The guidelines do not preclude Councils or NMFS from applying ACLs or other catch limits to stocks under international agreements, if such action was deemed to be appropriate and consistent with MSA and other statutory mandates.

NMFS considered different suggestions on how the exception might be clarified, *e.g.*, exception would only apply where there is an approved stock assessment, conservation and management measures, annual catch limits consistent with MSA overfishing and rebuilding requirements, etc. Regardless of how the exception could be revised, establishing ACL mechanisms and AMs on just the U.S. portion of the fishery is unlikely to have any impact on ending overfishing and rebuilding. For these reasons, and taking into consideration possible statutory interpretations and public comment, NMFS has decided not to revise the international exception.

With regard to whether an arrangement or understanding is an ''international agreement,'' it will be important to consider the facts and see if the arrangement or understanding qualifies as an ''international agreement'' as understood under MSA section 3(24) (defining ''international fishery agreement'') and as generally understood in international negotiation. The Case-Zablocki Act, 1 U.S.C. 112b, and its implementing regulations provide helpful guidance on interpreting the term ''international agreement.''

Comment 79: With regard to fisheries data (§ 600.310(i) of NS1 guidelines), comments included: data collection guidelines are burdensome, clarification is needed on how the Councils would implement the data collection requirements, and that data collection performance standards and real-time accounting are needed.

Response: NMFS believes that § 600.310(i) of the final action provides sufficient guidance to the Councils in developing and updating their FMPs, or associated public documents such as SAFE reports, to address data needed to meet the new requirements of the MSRA. There is a close relationship between the data available for fishery management and the types of conservation and management measures that can be employed. Also, for effective prevention of overfishing, it is essential that all sources of fishing mortality be accounted for. NMFS believes that detailing the sources of data for the fishery and how they are used to account for all sources of fishing mortality in the annual catch limit system will be beneficial. NMFS revised the final guidelines to clarify that a SAFE report, or other public document adopted by a Council, can be used to document the required fishery data elements.

Comment 80: NMFS received several comments requesting that better data be used when creating conservation and management measures.

Response: NMFS agrees that improvements in fishery data can lead to more effective conservation and management measures, including ACLs. NMFS is aware of the various gaps in data collection and analysis for FMPs in U.S. fisheries, and has ongoing and future plans to improve the data needed to implement the new provisions of the MSRA. NMFS programs and initiatives that will help produce better quality data include the: Marine Recreational Information Program (MRIP), National Permits System, and Fisheries Information and National Saltwater Angler Registry.

Comment 81: Some comments recognized the ongoing programs to improve data, but were concerned that the time that it would take to implement and fold these new data into the management process could cause overly restrictive measures when implementing ACLs on fisheries that are data poor (*e.g.* recreational fisheries).

Response: ACLs must be implemented using the best data and information available. Future improvements in data will allow corresponding improvements in conservation and management measures. This is an incremental process. NMFS believes that Councils must implement the best ACLs possible with the existing data, but should also look for opportunities to improve the data and the ACL measures in the future. It is important that the ACL measures prevent overfishing without being overly restrictive. In data poor situations, it is important to monitor key indicators, and have accountability measures that quickly adjust the fishery in response to changes in those indicators.

Comment 82: Some commenters noted they want more transparency in the data being used to manage fisheries.

Response: NMFS believes the NS1 guidelines provide sufficient guidance to the Councils in developing and updating their FMPs, or associated public documents such as SAFE reports, to address data needed to meet the new requirements of the MSRA. NMFS agrees that transparency in the Council process and NMFS decision process in regard to data and data analysis is critical to the public and user groups understanding of how fisheries are managed. NMFS is aware of this issue and will continue to seek improvements in such processes.

Comment 83: NMFS received several comments about the timing associated with submitting a rebuilding plan. Commenters asked for clarification on when the clock started for the implementation of the plan, stated that Councils should have two years to submit the plan to the Secretary, and suggested that a 6-month review/implementation period be used instead of a 9-month period. Commenters noted that MSA provides for specific time periods for Secretarial review.

Response: Ending overfishing and rebuilding overfished stocks is an important goal of the MSA and the performance of NMFS is measured by its ability to reach this goal. Currently, the Council has 12 months to submit an FMP, FMP amendment, or proposed

regulations to the Secretary, but there is no time requirement for implementation of such actions. MSA section 304(e)(3), which is effective July 12, 2009, requires that a Council prepare and implement an FMP, FMP amendment, or proposed regulations within 2 years of the Secretary notifying the council that the stock is overfished or approaching a condition of being overfished. The guidelines provide that such actions should be submitted to the Secretary within 15 months so NMFS has 9 months to review and implement the plan and regulations. NMFS recognizes that there are timing requirements for Secretarial review of FMPs and regulations (MSA section 304(a),(b)). The 15-month period was not intended to expand the time for Secretarial review, but rather, to address the new requirement that actions be implemented within two years. NMFS believes the timing set forth in the guidelines is appropriate as a general rule: it would continue to allow for 60 days for public comment on an FMP, 30 days for Secretarial review, and 6 months for NMFS to implement the rebuilding plan. However, in specific cases NMFS and a Council may agree on a schedule that gives the Council more time, if the overall objective can still be met.

Comment 84: NMFS received many comments in support of the language regarding ending overfishing immediately. One comment, however, stated that intent of the MSA is to end all overfishing, not just chronic overfishing, as described in the preamble.

Response: NMFS agrees that the intent of the MSA is to end overfishing, and in the context of a rebuilding plan, overfishing must be ended immediately. However, as long as fishing is occurring, there always is a chance that overfishing may occur given scientific and management uncertainty. The guidelines explain how to incorporate scientific and management uncertainty so that fishing may continue but with an appropriately low likelihood of overfishing. The term ''chronic overfishing'' is used to mean that annual fishing mortality rates exceed the MFMT on a consistent basis over a period of years. The MSA definition of overfishing is ''* * * a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis.'' NMFS believes that the best way to ensure that overfishing does not occur is to keep annual fishing mortality rates below the MFMT. However, exceeding the MFMT occasionally does not necessarily jeopardize the capacity of a fishery to produce the MSY on a continuing basis. The more frequently MFMT is exceeded, the more likely it becomes that the capacity of a fishery to produce the MSY on a continuing basis is jeopardized. Thus, NMFS believes that ACLs and AMs should be designed to prevent overfishing on an annual basis, but that conservation and management measures need not be so conservative as to prevent any possibility that the fishing mortality rate exceeds the MFMT in every year.

Comment 85: NMFS received several comments regarding what happens when a rebuilding plan reaches T_{max} but the stock is not fully rebuilt. Commenters supported the approach in the proposed action that provided that the rebuilding F should be reduced to no more than 75 percent of MFMT until the stock or stock complex is rebuilt. One commenter suggested clarifying the final guidelines text to provide: ''If the stock or stock complex has not rebuilt by T_{max}, then the fishing mortality rate should be maintained at $F_{rebuild}$ or 75% of the MFMT, whichever is less.'' Other commenters stated that 75 percent MFMT is not precautionary enough and that 50 percent MFMT (or less) should be used.

Response: This new language in the guidelines fills a gap in the current guidelines which did not prescribe how to proceed when a stock had reached T_{max} but had not been fully rebuilt. NMFS believes that requiring that F does not exceed $F_{rebuild}$ or 75 percent MFMT, whichever is lower, is an appropriate limit, but Councils should consider a lower mortality rate to meet the requirement to rebuild stocks in as short a time as possible, pursuant to the provisions in MSA section 304(e)(4)(a)(i). NMFS agrees that the suggested edit would clarify the provision, and has revised the guidelines.

Comment 86: NMFS received many comments on the relationship between T_{min}, T_{target} and T_{max}. Some comments supported the proposed guidelines and others stated that the guidelines should be modified. Comments included: T_{min} is inconsistent with MSA's requirement to take into account needs of fishing communities and should include those needs when evaluating whether rebuilding can occur in 10 years or less; management measures should be designed to achieve rebuilding by the T_{target} with at least a 50% probability of success and achieve T_{max} with a 90% probability of success; as in the 2005 proposed NS1 guidelines revisions, T_{max} should be calculated as T_{min} plus one mean generation time for purposes of determining whether rebuilding can occur in 10 years or less; per *NRDC* v. *NMFS,* 421 F.3d 872 (9th Cir. 2005), T_{target} should be as close to T_{min} as possible without causing a short-term disaster; rebuilding timeframes should only be extended above T_{min} where ''unusually severe impacts on fishing communities can be demonstrated, and where biological and ecological implications are minimal;'' rebuilding times for stock complexes must not be used to delay recovery of complex member species; and the ''generation time'' calculation for T_{max} should refer to generation time of the current population.

Response: In developing the guidance for rebuilding plans, NMFS developed guidelines for Councils which, if followed, are strong enough to rebuild overfished stocks, yet flexible enough to work for a diverse range of fisheries. The timeline for a rebuilding plan is based on three time points, T_{min}, T_{target} and T_{max}. T_{min} is the amount of time, in the absence of any fishing mortality, for the stock to have a 50% probability of reaching the rebuilding goal, B_{msy}. T_{min} is the basis for determining the rebuilding period, consistent with section 304(e)(4)(A)(ii) of the MSA which requires that rebuilding periods not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions, or management measures under an international agreement in which the United States participates dictate otherwise. T_{min} provides a biologically determined lower limit to T_{target}. Needs of fishing communities are not part of the criteria for determining whether a rebuilding period can or cannot exceed 10 years, but are an important factor in establishing T_{target}.

Just as T_{min} is a helpful reference point of the absolute shortest time to rebuild, T_{max} provides a reference point of the absolute longest rebuilding period that could be consistent with the MSA. T_{max} is clearly described in the guidelines as either 10 years, if T_{min} is 10 years or less, or T_{min} plus one generation time for the stock if T_{min} is greater than 10 years. NMFS agrees that this calculation can cause a discontinuity problem when calculating T_{max}, and proposed revisions to the NS1 guidelines in 2005 that would have addressed the issue by basing T_{max} on T_{min} + one generation time in all cases, which would have removed the requirement that T_{max} is 10 years in all cases where T_{min} was less than 10 years. NMFS did not finalize those revisions, but proposed the same changes to the MSA in the Administration's proposed MSA reauthorization bill. However,

when MSRA was passed, Congress did not accept the Administration's proposal and chose to keep the existing provision. NMFS has, therefore, not revised this aspect of the NS1 guidelines.

The generation time is defined in the guidelines as ''the average length of time between when an individual is born and the birth of its offspring.'' Typically this is calculated as the mean age of the spawners in the absence of fishing mortality (per Restrepo *et al.,* 1998), but the exact method is not specified in the guidance.

T_{max} is a limit which should be avoided. When developing a rebuilding plan, it is good practice for Councils to calculate the probability of the potential management alternatives to achieve rebuilding by T_{max}, in order to inform their decision.

T_{target} is bounded by T_{min} and T_{max} and is supposed to be established based on the factors specified in MSA section 304(e)(4). Section 600.310(j)(3) of the final action reiterates the statutory criteria on specifying rebuilding periods that are ''as short as possible,'' taking into account specified factors. Management measures put in place by the rebuilding plan should be expected (at least 50% probability) to achieve rebuilding by T_{target}. NMFS does not believe these sections should be revised to focus on ''short-term disasters'' or ''unusually severe'' community impacts, as the MSA provides for several factors to be considered. NMFS believes the final guidelines provide sufficient general guidance on the MSA requirements, but acknowledges that there is case law in different jurisdictions (such as NRDC v. NMFS), that fishery managers should consider in addition to the general guidance.

Comment 87: A commenter stated that § 600.310(j)(3)(i)(E) of the proposed action should be revised to state that ''as short as possible'' is a mandate, not just a priority.

Response: NMFS deleted the ''priority'' text in § 600.310 (j)(3)(i)(E) of the final action. That text is unnecessary given that § 600.310 (j)(3)(i) of the guidelines explains ''as short as possible'' and other rebuilding time period requirements from MSA section 304(e)(4).

Comment 88: Commenters raised several questions about the relationship of NS1 and National Standard 8 (NS 8), including whether NS 1 ''trumps'' NS 8 and whether the ACL guidance provides sufficient flexibility to address NS 8 considerations.

Response: NS 1 states: ''Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.'' MSA section 301(a)(1). NS 8 states: ''Conservation and management measures shall, *consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks,* take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2) [*i.e.*, National Standard 2] , in order to (A) provide for sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.'' MSA section 301(a)(8) (*emphasis added*).

The objectives in NS8 for sustained participation of fishing communities and minimization of adverse economic impacts do not provide a basis for continuing overfishing or failing to rebuild stocks. The text of NS8 explicitly provides that conservation and management measures must prevent overfishing and rebuild overfished stocks. MSA does provide, however, for flexibility in the specific conservation and management measures used to achieve its conservation goals, and NMFS took this into consideration in developing the revised NS1 guidelines.

Comment 89: NMFS received many comments regarding § 600.310(m) of the proposed action, a provision commonly called the ''mixed stock exception.'' One comment supported the revision as proposed. Some commenters noted that the provision is very important in managing specific mixed stock fisheries, and that changes in the proposed guidelines would make it impossible to use. Specific concern was noted about text that stated that the ''resulting rate of fishing mortality will not cause any stock or stock complex to fall below its MSST more than 50 percent of the time in the long term.'' In addition, commenters stated that the proposed revisions do not allow for social and economic aspects to be taken in to account adequately and would negatively impact several fisheries and fishing communities. Many others commented that the provision should be removed entirely, because it is contrary to the intent of the MSA. The MSA, as amended by the MSRA, requires preventing and ending overfishing, and a mixed stock exception would allow for chronic overfishing on vulnerable fish stocks within a complex.

Response: MSRA amended overfishing and rebuilding provisions of the MSA, reflecting the priority to be given to the Act's conservation goals. NMFS believes that the final NS1 guidelines provide helpful guidance on the new statutory requirements and will strengthen efforts to prevent overfishing from occurring in fisheries. Preventing overfishing and achieving, on a continuing basis, the OY is particularly challenging in mixed stock fisheries. To address this issue, the proposed action retained a mixed stock exception. NMFS recognizes the concerns raised about how the exception will impact efforts to prevent and end overfishing, and thus, revised the current NS1 guidelines text in light of new MSRA provisions.

The current mixed stock exception allows overfishing to occur on stocks within a complex so long as they do not become listed under the Endangered Species Act (ESA). As explained in the proposed guidelines, NMFS believes that ESA listing is an inappropriate threshold, and that stocks should be managed so they retain their potential to achieve MSY. The revised guidelines propose a higher threshold, limiting F to a level that will not lead to the stock becoming overfished in the long term. In addition, if any stock, including those under the mixed stock exception, were to drop below its MSST, it would be subject to the rebuilding requirements of the MSA, which require that overfishing be ended immediately and that the stock be rebuilt to B_{msy} (see § 600.310(j)(2)(ii)(B) of the final action). The exception, as revised, addresses concerns regarding social, economic, and community impacts as it could allow for continued harvest of certain stocks within a mixed stock fishery.

Having considered public comments on the proposed guidelines, NMFS has decided to retain the mixed stock exception as proposed in the guidance. While NMFS has chosen in the NS1 guidelines to emphasize the importance of stock-level analyses, MSA refers to preventing overfishing in a fishery and provides for flexibility in terms of the specific mechanisms and measures used to achieve this goal. The mixed stock exception provides Councils with needed flexibility for managing fisheries, while ensuring that all stocks in the fishery continue to be subject to strong conservation and management. However, NMFS believes that the mixed stock exception should be applied with a great deal of caution, taking into consideration new MSRA requirements and NS1 guidance regarding stock complexes and indicator species. NMFS also believes that Councils should work to improve selectivity of fishing gear and practices in their mixed-stock fisheries so that the need to apply the mixed stock exception is reduced in the future.

VI. Changes From Proposed Action

Annual catch target (ACT) is described as a management option, rather than a required reference point in paragraphs (f)(1), (f)(2)(v), (f)(6), (f)(6)(i), and (g)(2) in the final action.

The following sentence was deleted from paragraph (b)(2)(v)(B): ''The SSC may specify the type of information that should be included in the Stock Assessment and Fishery Evaluation (SAFE) report (*see* § 600.315).'' Paragraph (b)(2)(v)(C) was revised to make some clarifying edits regarding the SSC and peer review process. The following sentence was included in (b)(2)(v)(D): ''The SSC recommendation that is the most relevant to ACLs is ABC, as both ACL and ABC are levels of annual catch.''

Paragraph (c)(5) is removed because ''ACT control rule'' is no longer a required part of the definition framework. Paragraph (c)(6) in the proposed action is re-designated as paragraph (c)(5) in the final action. Paragraph (c)(7) in the proposed action is re-designated as paragraph (c)(6) in the final action.

Paragraph (d)(1) was revised to clarify that Councils may, but are not required to, use the ''ecosystem component'' species classification. Paragraphs (d)(2) through (d)(7) were revised to better clarify the classification system for stocks in an FMP. Paragraph (d)(9) is revised to emphasize that indicator stocks are stocks with SDC that can be used to help manage more poorly known stocks that are in a stock complex. Paragraph (d)(10) has been added to describe in general how to evaluate ''vulnerability'' of a stock.

Paragraph (e)(1)(iv) was revised to clarify that ecological conditions should be taken into account when specifying MSY. The following sentence was added to paragraph (e)(2)(i)(C): ''The MFMT or reasonable proxy may be expressed either as a single number (a fishing mortality rate or F value), or as a function of spawning biomass or other measure of reproductive potential.'' The following sentence was added to paragraph (e)(2)(i)(D): ''The OFL is an estimate of the catch level above which overfishing is occurring.'' The following sentence was deleted from (e)(2)(ii)(A)(*1*): ''The MFMT must not exceed F_{msy}.'' Paragraph (e)(3)(iv) was revised to improve clarity. The following sentence was deleted from (e)(3)(v)(A): ''As a long-term average, OY cannot exceed MSY.''

Paragraph (f)(1) was revised to give examples of scientific and management uncertainty. Paragraphs (f)(2)(ii) and (iii) were revised to clarify that scientific uncertainty in the OFL and any other scientific uncertainty should be accounted for when specifying ABC and the ABC control rule. Paragraph (f)(3) was revised to improve clarity; to acknowledge that the SSC may recommend an ABC that differs from the result of the ABC control rule calculation; and to state that while the ABC is allowed to equal OFL, NMFS expects that in most cases ABC will be reduced from OFL to reduce the probability that overfishing might occur in a year. Paragraph (f)(4) on the ABC control rule was revised to include the following sentences: ''The determination of ABC should be based, when possible, on the probability that an actual catch equal to the stock's ABC would result in overfishing. This probability that overfishing will occur cannot exceed 50 percent and should be a lower value. The ABC control rule should consider reducing fishing mortality as stock size declines and may establish a stock abundance level below which fishing would not be allowed.'' Paragraph (f)(5)(i) was revised to include the following sentences: ''ACLs in coordination with AMs must prevent overfishing (see MSA section 303(a)(15)). If a Council recommends an ACL which equals ABC, and the ABC is equal to OFL, the Secretary may presume that the proposal would not prevent overfishing, in the absence of sufficient analysis and justification for the approach.'' Also, paragraph (f)(5)(i) was revised to clarify that ''a multiyear plan must provide that, if an ACL is exceeded for a year, then AMs are triggered for the next year consistent with paragraph (g)(3) of this section.'' Paragraph (f)(5)(ii) now clarifies that ''if the management measures for different sectors differ in degree of management uncertainty, then sector-ACLs may be necessary so appropriate AMs can be developed for each sector.'' Paragraphs (f)(5)(iii) and (g)(5) were revised to remove the phrase ''large majority'' from both provisions. The description of the relationship between OFL to MSY and ACT to OY was removed from paragraph (f)(7) and is replaced with the following sentence: ''A Council may choose to use a single control rule that combines both scientific and management uncertainty and supports the ABC recommendation and establishment of ACL and if used ACT.''

Paragraph (g)(2) on inseason AMs was revised to include the following sentences: ''FMPs should contain inseason closure authority giving NMFS the ability to close fisheries if it determines, based on data that it deems sufficiently reliable, that an ACL has been exceeded or is projected to be reached, and that closure of the fishery is necessary to prevent overfishing. For fisheries without inseason management control to prevent the ACL from being exceeded, AMs should utilize ACTs that are set below ACLs so that catches do not exceed the ACL.'' Paragraph (g)(3) was revised to improve clarity and to include the following sentence: ''A Council could choose a higher performance standard (e.g., a stock's catch should not exceed its ACL more often than once every five or six years) for a stock that is particularly vulnerable to the effects of overfishing, if the vulnerability of the stock has not already been accounted for in the ABC control rule.'' Paragraph (g)(4) on AMs based on multi-year average data was revised to clarify: That Councils should explain why basing AMs on a multi-year period is appropriate; that AMs should be implemented if the average catch exceeds the average ACL; the performance standard; and that Councils can use a stepped approach when initially implementing AMs based on multi-year average data.

Paragraph (h) was revised to include the sentence: ''These mechanisms should describe the annual or multiyear process by which specific ACLs, AMs, and other reference points such as OFL, and ABC will be established.'' Paragraph (h)(1)(v) was removed because the requirement to describe fisheries data is covered under paragraph (i). Paragraph (i) is revised to clarify that Councils must describe ''in their FMPs, or associated public documents such as SAFE reports as appropriate,'' general data collection methods.

Paragraph (j)(2)(ii)(C) was removed and paragraph (j)(2)(ii)(B) was revised to include information about stocks or stock complexes that are approaching an overfished condition. Paragraph (j)(3)(i)(E) was revised to remove the ''priority'' text. That text is unnecessary given that section (j)(3)(i) explains ''as short as possible'' and other rebuilding time period requirements from MSA section 304(e)(4). Paragraph (j)(3)(ii) was revised to clarify that ''if the stock or stock complex has not rebuilt by T_{max}, then the fishing mortality rate should be maintained at $F_{rebuild}$ or 75 percent of the MFMT, whichever is less.''

Introductory language (General) has been added to paragraph (l) to clarify the relationship of other national standards to National Standard 1. Also, paragraph (l)(4) has been revised to ensure that the description about the relationship between National Standard 8 with National Standard 1 reflects more

accurately, section 301(a)(8) of the Magnuson-Stevens Act.

The words ''should'' or ''recommended'' in the proposed rule are changed to ''must'' or ''are required'' or ''need to'' in this action's codified text if NMFS interprets the guidance to refer to ''requirements of the Magnuson-Stevens Act'' and ''the logical extension thereof'' (see section 600.305(c) of the MSA). In the following, items in paragraphs of § 600.310 are followed by an applicable MSA section that contains pertinent requirements:

Paragraph (b)(3) is revised to state that Councils ''must take an approach that considers uncertainty in scientific information and management control of the fishery'' because it needs to meet requirements in MSA section 303(a)(15).

Paragraph (c) is revised to state ''* * * Councils must include in their FMPs * * *'' because it needs to meet various requirements in MSA section 303(a).

Paragraph (c) is revised to state ''Councils must also describe fisheries data * * *'' because it needs to meet requirements of various portions of MSA sections 303(a) and 303(a)(15).

Paragraph (c) is revised to state ''* * * Councils must evaluate and describe the following items in their FMPs * * *'' because it needs to meet requirements of various portions of MSA sections 303(a) and 303(a)(15).

Paragraph (e)(1) is revised to state that ''Each FMP must include an estimate of MSY * * *'' because it needs to meet requirements of MSA section 303(a)(3).

Paragraph (e)(2)(ii) is revised to state that a Council ''must provide an analysis of how the SDC were chosen * * *'' because it needs to meet requirements of MSA section 303(a)(10).

Paragraph (e)(2)(ii)(A) is revised to state ''each FMP must describe which of the following two methods * * *'' because it needs to meet requirements of MSA section 303(a)(10).

Paragraph (e)(2)(ii)(B) is revised to state ''the MSST or reasonable proxy must be expressed in terms of spawning biomass * * *'' because it needs to meet requirements of MSA section 303(a)(10).

Paragraph (f)(4) is revised to state each Council ''must establish an ABC control rule * * *'' because it needs to meet requirements of MSA sections 303(a)(15) and 302(g)(1)(B).

Paragraph (f)(4) is revised to state ''The ABC control rule must articulate how ABC will be set compared to the OFL * * *'' because it needs to meet requirements of MSA sections 303(a)(15) and 301(a)(2).

Paragraph (f)(5)(i) is revised to state ''A multiyear plan must include a mechanism for specifying ACLs for each year * * *'' because it needs to meet requirements of MSA section 303(a)(15).

Paragraph (f)(5)(i) is also revised to state ''A multiyear plan must provide that, if an ACL is exceeded * * *'' because it needs to meet requirements of MSA section 303(a)(15).

Paragraph (f)(6)(i) is revised to state ''Such analyses must be based on best available scientific * * *'' because it needs to meet requirements of MSA section 301(a)(2).

Paragraph (g)(3) is revised to state a Council ''must determine as soon as possible after the fishing year if an ACL is exceeded * * *'' because it needs to meet requirements of MSA sections 303(a)(15), 301(a)(1) and 301(a)(2).

Paragraph (h) is revised to state FMPs or FMP amendments ''must establish ACL mechanisms and AMs * * *'' because it needs to meet requirements of MSA section 303(a)(15).

Paragraph (h)(3) is revised to state ''Councils must document their rationale for any alternative approaches * * *'' because it needs to meet requirements of MSA section 303(a)(15).

Paragraph (j)(2) is revised to state ''FMPs or FMP amendments must establish ACL and AM mechanisms in 2010 * * *'' because it needs to meet requirements of MSA section 303(a)(15).

Paragraph (j)(2)(i)(A) is revised to state that '' * * * ACLs and AMs themselves must be specified * * *'' because it needs to meet requirements of MSA section 303(a)(15).

Paragraph (k) is revised to state that ''The Secretary, in cooperation with the Secretary of State, must immediately take appropriate action at the international level * * *'' because it needs to meet requirements of MSA section 304(i)—INTERNATIONAL OVERFISHING.

Paragraph (k)(3) is revised to state that ''Information used to determine relative impact must be based upon the best available scientific * * *'' because it needs to meet requirements of MSA section 301(a)(2).

Paragraph (l)(2) is revised to state that ''Also scientific assessments must be based on the best information * * *'' because it needs to meet requirements of MSA section 301(a)(2).

VII. References Cited

A complete list of all the references cited in this final action is available online at: *http://www.nmfs.noaa.gov/msa2007/catchlimits.htm* or upon request from Mark Millikin [*see* **FOR FURTHER INFORMATION CONTACT**].

VIII. Classification

Pursuant to the Magnuson-Stevens Act, the NMFS Assistant Administrator has determined that these final NS1 guidelines are consistent with the Magnuson-Stevens Act, and other applicable law.

The final NS1 guidelines have been determined to be significant for purposes of Executive Order 12866. NOAA prepared a regulatory impact review of this rulemaking, which is available at: *http://www.nmfs.noaa.gov/msa2007/catchlimits.htm.* This analysis discusses various policy options that NOAA considered in preparation of the proposed action, given NOAA's interpretation of the statutory terms in the MSRA, such as the appropriate meaning of the word ''limit'' in ''Annual Catch Limit,'' and NOAA's belief that it has become necessary for Councils to consider separately the uncertainties in fishery management and the scientific uncertainties in stock evaluation in order to effectively set fishery management policies and ensure fulfillment of the goals to end overfishing and rebuild overfished stocks.

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration during the proposed rule stage that these revisions to the NS1 guidelines, if adopted, would not have any significant economic impact on a substantial number of small entities. The factual basis for the certification was published in the proposed action and is not repeated here. Two commenters stated that an initial regulatory flexibility analysis should be prepared, and NMFS has responded to those comments in the ''Response to Comments.'' After considering the comments, NMFS has determined that a certification is still appropriate for this action. Therefore, a regulatory flexibility analysis is not required for this action and none was prepared.

List of Subjects in 50 CFR Part 600

Fisheries, Fishing, Reporting and recordkeeping requirements.

Dated: January 9, 2009.

James W. Balsiger,

Acting Assistant Administrator, for Fisheries, National Marine Fisheries Service.

PART 600—MAGNUSON-STEVENS ACT PROVISIONS

■ 1. The authority citation for part 600 continues to read as follows:

Authority: 16 U.S.C. 1801 *et seq.*

■ 2. Section 600.310 is revised to read as follows:

§ 600.310 National Standard 1—Optimum Yield.

(a) *Standard 1.* Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield (OY) from each fishery for the U.S. fishing industry.

(b) *General.* (1) The guidelines set forth in this section describe fishery management approaches to meet the objectives of National Standard 1 (NS1), and include guidance on:

(i) Specifying maximum sustainable yield (MSY) and OY;

(ii) Specifying status determination criteria (SDC) so that overfishing and overfished determinations can be made for stocks and stock complexes that are part of a fishery;

(iii) Preventing overfishing and achieving OY, incorporation of scientific and management uncertainty in control rules, and adaptive management using annual catch limits (ACL) and measures to ensure accountability (AM); and

(iv) Rebuilding stocks and stock complexes.

(2) *Overview of Magnuson-Stevens Act concepts and provisions related to NS1*—(i) *MSY.* The Magnuson-Stevens Act establishes MSY as the basis for fishery management and requires that: The fishing mortality rate does not jeopardize the capacity of a stock or stock complex to produce MSY; the abundance of an overfished stock or stock complex be rebuilt to a level that is capable of producing MSY; and OY not exceed MSY.

(ii) *OY.* The determination of OY is a decisional mechanism for resolving the Magnuson-Stevens Act's conservation and management objectives, achieving a fishery management plan's (FMP) objectives, and balancing the various interests that comprise the greatest overall benefits to the Nation. OY is based on MSY as reduced under paragraphs (e)(3)(iii) and (iv) of this section. The most important limitation on the specification of OY is that the choice of OY and the conservation and management measures proposed to achieve it must prevent overfishing.

(iii) *ACLs and AMs.* Any FMP which is prepared by any Council shall establish a mechanism for specifying ACLs in the FMP (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability (Magnuson-Stevens Act section 303(a)(15)). Subject to certain exceptions and circumstances described in paragraph (h) of this section, this requirement takes effect in fishing year 2010, for fisheries determined subject to overfishing, and in fishing year 2011, for all other fisheries (Magnuson-Stevens Act section 303 note). ''Council'' includes the Regional Fishery Management Councils and the Secretary of Commerce, as appropriate (*see* § 600.305(c)(11)).

(iv) *Reference points.* SDC, MSY, acceptable biological catch (ABC), and ACL, which are described further in paragraphs (e) and (f) of this section, are collectively referred to as ''reference points.''

(v) *Scientific advice.* The Magnuson-Stevens Act has requirements regarding scientific and statistical committees (SSC) of the Regional Fishery Management Councils, including but not limited to, the following provisions:

(A) Each Regional Fishery Management Council shall establish an SSC as described in section 302(g)(1)(A) of the Magnuson-Stevens Act.

(B) Each SSC shall provide its Regional Fishery Management Council recommendations for ABC as well as other scientific advice, as described in Magnuson-Stevens Act section 302(g)(1)(B).

(C) The Secretary and each Regional Fishery Management Council may establish a peer review process for that Council for scientific information used to advise the Council about the conservation and management of a fishery (see Magnuson-Stevens Act section 302(g)(1)(E)). If a peer review process is established, it should investigate the technical merits of stock assessments and other scientific information used by the SSC or agency or international scientists, as appropriate. For Regional Fishery Management Councils, the peer review process is not a substitute for the SSC and should work in conjunction with the SSC. For the Secretary, which does not have an SSC, the peer review process should provide the scientific information necessary.

(D) Each Council shall develop ACLs for each of its managed fisheries that may not exceed the ''fishing level recommendations'' of its SSC or peer review process (Magnuson-Stevens Act section 302(h)(6)). The SSC recommendation that is the most relevant to ACLs is ABC, as both ACL and ABC are levels of annual catch.

(3) *Approach for setting limits and accountability measures, including targets, for consistency with NS1.* In general, when specifying limits and accountability measures intended to avoid overfishing and achieve sustainable fisheries, Councils must take an approach that considers uncertainty in scientific information and management control of the fishery. These guidelines describe how to address uncertainty such that there is a low risk that limits are exceeded as described in paragraphs (f)(4) and (f)(6) of this section.

(c) *Summary of items to include in FMPs related to NS1.* This section provides a summary of items that Councils must include in their FMPs and FMP amendments in order to address ACL, AM, and other aspects of the NS1 guidelines. As described in further detail in paragraph (d) of this section, Councils may review their FMPs to decide if all stocks are ''in the fishery'' or whether some fit the category of ''ecosystem component species.'' Councils must also describe fisheries data for the stocks, stock complexes, and ecosystem component species in their FMPs, or associated public documents such as Stock Assessment and Fishery Evaluation (SAFE) Reports. For all stocks and stock complexes that are ''in the fishery'' (see paragraph (d)(2) of this section), the Councils must evaluate and describe the following items in their FMPs and amend the FMPs, if necessary, to align their management objectives to end or prevent overfishing:

(1) MSY and SDC (see paragraphs (e)(1) and (2) of this section).

(2) OY at the stock, stock complex, or fishery level and provide the OY specification analysis (see paragraph (e)(3) of this section).

(3) ABC control rule (see paragraph (f)(4) of this section).

(4) Mechanisms for specifying ACLs and possible sector-specific ACLs in relationship to the ABC (see paragraphs (f)(5) and (h) of this section).

(5) AMs (see paragraphs (g) and (h)(1) of this section).

(6) Stocks and stock complexes that have statutory exceptions from ACLs (see paragraph (h)(2) of this section) or which fall under limited circumstances which require different approaches to meet the ACL requirements (see paragraph (h)(3) of this section).

(d) *Classifying stocks in an FMP*—(1) *Introduction.* Magnuson-Stevens Act section 303(a)(2) requires that an FMP contain, among other things, a description of the species of fish involved in the fishery. The relevant Council determines which specific target stocks and/or non-target stocks to include in a fishery. This section provides that a Council may, but is not required to, use an ''ecosystem component (EC)'' species classification. As a default, all stocks in an FMP are

considered to be ''in the fishery,'' unless they are identified as EC species (see § 600.310(d)(5)) through an FMP amendment process.

(2) *Stocks in a fishery.* Stocks in a fishery may be grouped into stock complexes, as appropriate. Requirements for reference points and management measures for these stocks are described throughout these guidelines.

(3) ''Target stocks'' are stocks that fishers seek to catch for sale or personal use, including ''economic discards'' as defined under Magnuson-Stevens Act section 3(9).

(4) ''Non-target species'' and ''non-target stocks'' are fish caught incidentally during the pursuit of target stocks in a fishery, including ''regulatory discards'' as defined under Magnuson-Stevens Act section 3(38). They may or may not be retained for sale or personal use. Non-target species may be included in a fishery and, if so, they should be identified at the stock level. Some non-target species may be identified in an FMP as ecosystem component (EC) species or stocks.

(5) *Ecosystem component (EC) species.* (i) To be considered for possible classification as an EC species, the species should:

(A) Be a non-target species or non-target stock;

(B) Not be determined to be subject to overfishing, approaching overfished, or overfished;

(C) Not be likely to become subject to overfishing or overfished, according to the best available information, in the absence of conservation and management measures; and

(D) Not generally be retained for sale or personal use.

(ii) Occasional retention of the species would not, in and of itself, preclude consideration of the species under the EC classification. In addition to the general factors noted in paragraphs (d)(5)(i)(A)–(D) of this section, it is important to consider whether use of the EC species classification in a given instance is consistent with MSA conservation and management requirements.

(iii) EC species may be identified at the species or stock level, and may be grouped into complexes. EC species may, but are not required to, be included in an FMP or FMP amendment for any of the following reasons: For data collection purposes; for ecosystem considerations related to specification of OY for the associated fishery; as considerations in the development of conservation and management measures for the associated fishery; and/or to address other ecosystem issues. While EC species are not considered to be ''in the fishery,'' a Council should consider measures for the fishery to minimize bycatch and bycatch mortality of EC species consistent with National Standard 9, and to protect their associated role in the ecosystem. EC species do not require specification of reference points but should be monitored to the extent that any new pertinent scientific information becomes available (e.g., catch trends, vulnerability, etc.) to determine changes in their status or their vulnerability to the fishery. If necessary, they should be reclassified as ''in the fishery.''

(6) *Reclassification.* A Council should monitor the catch resulting from a fishery on a regular basis to determine if the stocks and species are appropriately classified in the FMP. If the criteria previously used to classify a stock or species is no longer valid, the Council should reclassify it through an FMP amendment, which documents rationale for the decision.

(7) *Stocks or species identified in more than one FMP.* If a stock is identified in more than one fishery, Councils should choose which FMP will be the primary FMP in which management objectives, SDC, the stock's overall ACL and other reference points for the stock are established. Conservation and management measures in other FMPs in which the stock is identified as part of a fishery should be consistent with the primary FMP's management objectives for the stock.

(8) *Stock complex.* ''Stock complex'' means a group of stocks that are sufficiently similar in geographic distribution, life history, and vulnerabilities to the fishery such that the impact of management actions on the stocks is similar. At the time a stock complex is established, the FMP should provide a full and explicit description of the proportional composition of each stock in the stock complex, to the extent possible. Stocks may be grouped into complexes for various reasons, including where stocks in a multispecies fishery cannot be targeted independent of one another and MSY can not be defined on a stock-by-stock basis (*see* paragraph (e)(1)(iii) of this section); where there is insufficient data to measure their status relative to SDC; or when it is not feasible for fishermen to distinguish individual stocks among their catch. The vulnerability of stocks to the fishery should be evaluated when determining if a particular stock complex should be established or reorganized, or if a particular stock should be included in a complex. Stock complexes may be comprised of: one or more indicator stocks, each of which has SDC and ACLs, and several other stocks; several stocks without an indicator stock, with SDC and an ACL for the complex as a whole; or one of more indicator stocks, each of which has SDC and management objectives, with an ACL for the complex as a whole (this situation might be applicable to some salmon species).

(9) *Indicator stocks.* An indicator stock is a stock with measurable SDC that can be used to help manage and evaluate more poorly known stocks that are in a stock complex. If an indicator stock is used to evaluate the status of a complex, it should be representative of the typical status of each stock within the complex, due to similarity in vulnerability. If the stocks within a stock complex have a wide range of vulnerability, they should be reorganized into different stock complexes that have similar vulnerabilities; otherwise the indicator stock should be chosen to represent the more vulnerable stocks within the complex. In instances where an indicator stock is less vulnerable than other members of the complex, management measures need to be more conservative so that the more vulnerable members of the complex are not at risk from the fishery. More than one indicator stock can be selected to provide more information about the status of the complex. When indicator stock(s) are used, periodic re-evaluation of available quantitative or qualitative information (e.g., catch trends, changes in vulnerability, fish health indices, etc.) is needed to determine whether a stock is subject to overfishing, or is approaching (or in) an overfished condition.

(10) *Vulnerability.* A stock's vulnerability is a combination of its productivity, which depends upon its life history characteristics, and its susceptibility to the fishery. Productivity refers to the capacity of the stock to produce MSY and to recover if the population is depleted, and susceptibility is the potential for the stock to be impacted by the fishery, which includes direct captures, as well as indirect impacts to the fishery (e.g., loss of habitat quality). Councils in consultation with their SSC, should analyze the vulnerability of stocks in stock complexes where possible.

(e) *Features of MSY, SDC, and OY.*—(1) *MSY.* Each FMP must include an estimate of MSY for the stocks and stock complexes in the fishery, as described in paragraph (d)(2) of this section).

(i) *Definitions.* (A) *MSY* is the largest long-term average catch or yield that can be taken from a stock or stock complex

under prevailing ecological, environmental conditions and fishery technological characteristics (e.g., gear selectivity), and the distribution of catch among fleets.

(B) *MSY fishing mortality rate (F_{msy})* is the fishing mortality rate that, if applied over the long term, would result in MSY.

(C) *MSY stock size (B_{msy})* means the long-term average size of the stock or stock complex, measured in terms of spawning biomass or other appropriate measure of the stock's reproductive potential that would be achieved by fishing at F_{msy}.

(ii) *MSY for stocks.* MSY should be estimated for each stock based on the best scientific information available (see § 600.315).

(iii) *MSY for stock complexes.* MSY should be estimated on a stock-by-stock basis whenever possible. However, where MSY cannot be estimated for each stock in a stock complex, then MSY may be estimated for one or more indicator stocks for the complex or for the complex as a whole. When indicator stocks are used, the stock complex's MSY could be listed as ''unknown,'' while noting that the complex is managed on the basis of one or more indicator stocks that do have known stock-specific MSYs, or suitable proxies, as described in paragraph (e)(1)(iv) of this section. When indicator stocks are not used, MSY, or a suitable proxy, should be calculated for the stock complex as a whole.

(iv) *Specifying MSY.* Because MSY is a long-term average, it need not be estimated annually, but it must be based on the best scientific information available (*see* § 600.315), and should be re-estimated as required by changes in long-term environmental or ecological conditions, fishery technological characteristics, or new scientific information. When data are insufficient to estimate MSY directly, Councils should adopt other measures of reproductive potential, based on the best scientific information available, that can serve as reasonable proxies for MSY, F_{msy}, and B_{msy}, to the extent possible. The MSY for a stock is influenced by its interactions with other stocks in its ecosystem and these interactions may shift as multiple stocks in an ecosystem are fished. These ecological conditions should be taken into account, to the extent possible, when specifying MSY. Ecological conditions not directly accounted for in the specification of MSY can be among the ecological factors considered when setting OY below MSY. As MSY values are estimates or are based on proxies, they will have some level of uncertainty associated with them. The degree of uncertainty in the estimates should be identified, when possible, through the stock assessment process and peer review (*see* § 600.335), and should be taken into account when specifying the ABC Control rule. Where this uncertainty cannot be directly calculated, such as when proxies are used, then a proxy for the uncertainty itself should be established based on the best scientific information, including comparison to other stocks.

(2) *Status determination criteria*—(i) *Definitions.* (A) *Status determination criteria (SDC)* mean the quantifiable factors, MFMT, OFL, and MSST, or their proxies, that are used to determine if overfishing has occurred, or if the stock or stock complex is overfished. Magnuson-Stevens Act (section 3(34)) defines both ''overfishing'' and ''overfished'' to mean a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the MSY on a continuing basis. To avoid confusion, this section clarifies that ''overfished'' relates to biomass of a stock or stock complex, and ''overfishing'' pertains to a rate or level of removal of fish from a stock or stock complex.

(B) *Overfishing* (to overfish) occurs whenever a stock or stock complex is subjected to a level of fishing mortality or annual total catch that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

(C) *Maximum fishing mortality threshold (MFMT)* means the level of fishing mortality (F), on an annual basis, above which overfishing is occurring. The MFMT or reasonable proxy may be expressed either as a single number (a fishing mortality rate or F value), or as a function of spawning biomass or other measure of reproductive potential.

(D) *Overfishing limit (OFL)* means the annual amount of catch that corresponds to the estimate of MFMT applied to a stock or stock complex's abundance and is expressed in terms of numbers or weight of fish. The OFL is an estimate of the catch level above which overfishing is occurring.

(E) *Overfished.* A stock or stock complex is considered ''overfished'' when its biomass has declined below a level that jeopardizes the capacity of the stock or stock complex to produce MSY on a continuing basis.

(F) *Minimum stock size threshold (MSST)* means the level of biomass below which the stock or stock complex is considered to be overfished.

(G) *Approaching an overfished condition.* A stock or stock complex is approaching an overfished condition when it is projected that there is more than a 50 percent chance that the biomass of the stock or stock complex will decline below the MSST within two years.

(ii) *Specification of SDC and overfishing and overfished determinations.* SDC must be expressed in a way that enables the Council to monitor each stock or stock complex in the FMP, and determine annually, if possible, whether overfishing is occurring and whether the stock or stock complex is overfished. In specifying SDC, a Council must provide an analysis of how the SDC were chosen and how they relate to reproductive potential. Each FMP must specify, to the extent possible, objective and measurable SDC as follows (*see* paragraphs (e)(2)(ii)(A) and (B) of this section):

(A) *SDC to determine overfishing status.* Each FMP must describe which of the following two methods will be used for each stock or stock complex to determine an overfishing status.

(1) *Fishing mortality rate exceeds MFMT.* Exceeding the MFMT for a period of 1 year or more constitutes overfishing. The MFMT or reasonable proxy may be expressed either as a single number (a fishing mortality rate or F value), or as a function of spawning biomass or other measure of reproductive potential.

(2) *Catch exceeds the OFL.* Should the annual catch exceed the annual OFL for 1 year or more, the stock or stock complex is considered subject to overfishing.

(B) *SDC to determine overfished status.* The MSST or reasonable proxy must be expressed in terms of spawning biomass or other measure of reproductive potential. To the extent possible, the MSST should equal whichever of the following is greater: One-half the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years, if the stock or stock complex were exploited at the MFMT specified under paragraph (e)(2)(ii)(A)(1) of this section. Should the estimated size of the stock or stock complex in a given year fall below this threshold, the stock or stock complex is considered overfished.

(iii) *Relationship of SDC to environmental change.* Some short-term environmental changes can alter the size of a stock or stock complex without affecting its long-term reproductive potential. Long-term environmental changes affect both the short-term size of the stock or stock complex and the long-term reproductive potential of the stock or stock complex.

(A) If environmental changes cause a stock or stock complex to fall below its MSST without affecting its long-term reproductive potential, fishing mortality must be constrained sufficiently to allow rebuilding within an acceptable time frame (*also see* paragraph (j)(3)(ii) of this section). SDC should not be respecified.

(B) If environmental changes affect the long-term reproductive potential of the stock or stock complex, one or more components of the SDC must be respecified. Once SDC have been respecified, fishing mortality may or may not have to be reduced, depending on the status of the stock or stock complex with respect to the new criteria.

(C) If manmade environmental changes are partially responsible for a stock or stock complex being in an overfished condition, in addition to controlling fishing mortality, Councils should recommend restoration of habitat and other ameliorative programs, to the extent possible (see also the guidelines issued pursuant to section 305(b) of the Magnuson-Stevens Act for Council actions concerning essential fish habitat).

(iv) *Secretarial approval of SDC.* Secretarial approval or disapproval of proposed SDC will be based on consideration of whether the proposal:

(A) Has sufficient scientific merit;

(B) Contains the elements described in paragraph (e)(2)(ii) of this section;

(C) Provides a basis for objective measurement of the status of the stock or stock complex against the criteria; and

(D) is operationally feasible.

(3) *Optimum yield*—(i) *Definitions*—(A) *Optimum yield (OY).* Magnuson-Stevens Act section (3)(33) defines ''optimum,'' with respect to the yield from a fishery, as the amount of fish that will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities and taking into account the protection of marine ecosystems; that is prescribed on the basis of the MSY from the fishery, as reduced by any relevant economic, social, or ecological factor; and, in the case of an overfished fishery, that provides for rebuilding to a level consistent with producing the MSY in such fishery. OY may be established at the stock or stock complex level, or at the fishery level.

(B) In NS1, use of the phrase ''achieving, on a continuing basis, the optimum yield from each fishery'' means producing, from each stock, stock complex, or fishery: a long-term series of catches such that the average catch is equal to the OY, overfishing is prevented, the long term average biomass is near or above B_{msy}, and overfished stocks and stock complexes are rebuilt consistent with timing and other requirements of section 304(e)(4) of the Magnuson-Stevens Act and paragraph (j) of this section.

(ii) *General.* OY is a long-term average amount of desired yield from a stock, stock complex, or fishery. An FMP must contain conservation and management measures, including ACLs and AMs, to achieve OY on a continuing basis, and provisions for information collection that are designed to determine the degree to which OY is achieved. These measures should allow for practical and effective implementation and enforcement of the management regime. The Secretary has an obligation to implement and enforce the FMP. If management measures prove unenforceable—or too restrictive, or not rigorous enough to prevent overfishing while achieving OY—they should be modified; an alternative is to reexamine the adequacy of the OY specification. Exceeding OY does not necessarily constitute overfishing. However, even if no overfishing resulted from exceeding OY, continual harvest at a level above OY would violate NS1, because OY was not achieved on a continuing basis. An FMP must contain an assessment and specification of OY, including a summary of information utilized in making such specification, consistent with requirements of section 303(a)(3) of the Magnuson-Stevens Act. A Council must identify those economic, social, and ecological factors relevant to management of a particular stock, stock complex, or fishery, and then evaluate them to determine the OY. The choice of a particular OY must be carefully documented to show that the OY selected will produce the greatest benefit to the Nation and prevent overfishing.

(iii) *Determining the greatest benefit to the Nation.* In determining the greatest benefit to the Nation, the values that should be weighed and receive serious attention when considering the economic, social, or ecological factors used in reducing MSY to obtain OY are:

(A) The benefits of food production are derived from providing seafood to consumers; maintaining an economically viable fishery together with its attendant contributions to the national, regional, and local economies; and utilizing the capacity of the Nation's fishery resources to meet nutritional needs.

(B) The benefits of recreational opportunities reflect the quality of both the recreational fishing experience and non-consumptive fishery uses such as ecotourism, fish watching, and recreational diving. Benefits also include the contribution of recreational fishing to the national, regional, and local economies and food supplies.

(C) The benefits of protection afforded to marine ecosystems are those resulting from maintaining viable populations (including those of unexploited species), maintaining adequate forage for all components of the ecosystem, maintaining evolutionary and ecological processes (e.g., disturbance regimes, hydrological processes, nutrient cycles), maintaining the evolutionary potential of species and ecosystems, and accommodating human use.

(iv) *Factors to consider in OY specification.* Because fisheries have limited capacities, any attempt to maximize the measures of benefits described in paragraph (e)(3)(iii) of this section will inevitably encounter practical constraints. OY cannot exceed MSY in any circumstance, and must take into account the need to prevent overfishing and rebuild overfished stocks and stock complexes. OY is prescribed on the basis of MSY as reduced by social, economic, and ecological factors. To the extent possible, the relevant social, economic, and ecological factors used to establish OY for a stock, stock complex, or fishery should be quantified and reviewed in historical, short-term, and long-term contexts. Even where quantification of social, economic, and ecological factors is not possible, the FMP still must address them in its OY specification. The following is a non-exhaustive list of potential considerations for each factor. An FMP must address each factor but not necessarily each example.

(A) *Social factors.* Examples are enjoyment gained from recreational fishing, avoidance of gear conflicts and resulting disputes, preservation of a way of life for fishermen and their families, and dependence of local communities on a fishery (e.g., involvement in fisheries and ability to adapt to change). Consideration may be given to fishery-related indicators (e.g., number of fishery permits, number of commercial fishing vessels, number of party and charter trips, landings, ex-vessel revenues etc.) and non-fishery related indicators (e.g., unemployment rates, percent of population below the poverty level, population density, etc.). Other factors that may be considered include the effects that past harvest levels have had on fishing communities, the cultural place of subsistence fishing, obligations under Indian treaties, proportions of affected minority and low-income groups, and worldwide nutritional needs.

(B) *Economic factors.* Examples are prudent consideration of the risk of overharvesting when a stock's size or reproductive potential is uncertain (*see* § 600.335(c)(2)(i)), satisfaction of consumer and recreational needs, and encouragement of domestic and export markets for U.S. harvested fish. Other factors that may be considered include: The value of fisheries, the level of capitalization, the decrease in cost per unit of catch afforded by an increase in stock size, the attendant increase in catch per unit of effort, alternate employment opportunities, and economic contribution to fishing communities, coastal areas, affected states, and the nation.

(C) *Ecological factors.* Examples include impacts on ecosystem component species, forage fish stocks, other fisheries, predator-prey or competitive interactions, marine mammals, threatened or endangered species, and birds. Species interactions that have not been explicitly taken into account when calculating MSY should be considered as relevant factors for setting OY below MSY. In addition, consideration should be given to managing forage stocks for higher biomass than B_{msy} to enhance and protect the marine ecosystem. Also important are ecological or environmental conditions that stress marine organisms, such as natural and manmade changes in wetlands or nursery grounds, and effects of pollutants on habitat and stocks.

(v) *Specification of OY.* The specification of OY must be consistent with paragraphs (e)(3)(i)–(iv) of this section. If the estimates of MFMT and current biomass are known with a high level of certainty and management controls can accurately limit catch then OY could be set very close to MSY, assuming no other reductions are necessary for social, economic, or ecological factors. To the degree that such MSY estimates and management controls are lacking or unavailable, OY should be set farther from MSY. If management measures cannot adequately control fishing mortality so that the specified OY can be achieved without overfishing, the Council should reevaluate the management measures and specification of OY so that the dual requirements of NS1 (preventing overfishing while achieving, on a continuing basis, OY) are met.

(A) The amount of fish that constitutes the OY should be expressed in terms of numbers or weight of fish.

(B) Either a range or a single value may be specified for OY.

(C) All catch must be counted against OY, including that resulting from bycatch, scientific research, and all fishing activities.

(D) The OY specification should be translatable into an annual numerical estimate for the purposes of establishing any total allowable level of foreign fishing (TALFF) and analyzing impacts of the management regime.

(E) The determination of OY is based on MSY, directly or through proxy. However, even where sufficient scientific data as to the biological characteristics of the stock do not exist, or where the period of exploitation or investigation has not been long enough for adequate understanding of stock dynamics, or where frequent large-scale fluctuations in stock size diminish the meaningfulness of the MSY concept, OY must still be established based on the best scientific information available.

(F) An OY established at a fishery level may not exceed the sum of the MSY values for each of the stocks or stock complexes within the fishery.

(G) There should be a mechanism in the FMP for periodic reassessment of the OY specification, so that it is responsive to changing circumstances in the fishery.

(H) Part of the OY may be held as a reserve to allow for factors such as uncertainties in estimates of stock size and domestic annual harvest (DAH). If an OY reserve is established, an adequate mechanism should be included in the FMP to permit timely release of the reserve to domestic or foreign fishermen, if necessary.

(vi) *OY and foreign fishing.* Section 201(d) of the Magnuson-Stevens Act provides that fishing by foreign nations is limited to that portion of the OY that will not be harvested by vessels of the United States. The FMP must include an assessment to address the following, as required by section 303(a)(4) of the Magnuson-Stevens Act:

(A) *DAH.* Councils and/or the Secretary must consider the capacity of, and the extent to which, U.S. vessels will harvest the OY on an annual basis. Estimating the amount that U.S. fishing vessels will actually harvest is required to determine the surplus.

(B) *Domestic annual processing (DAP).* Each FMP must assess the capacity of U.S. processors. It must also assess the amount of DAP, which is the sum of two estimates: The estimated amount of U.S. harvest that domestic processors will process, which may be based on historical performance or on surveys of the expressed intention of manufacturers to process, supported by evidence of contracts, plant expansion, or other relevant information; and the estimated amount of fish that will be harvested by domestic vessels, but not processed (*e.g.*, marketed as fresh whole fish, used for private consumption, or used for bait).

(C) *Joint venture processing (JVP).* When DAH exceeds DAP, the surplus is available for JVP.

(f) *Acceptable biological catch, annual catch limits, and annual catch targets.* The following features (see paragraphs (f)(1) through (f)(5) of this section) of acceptable biological catch and annual catch limits apply to stocks and stock complexes in the fishery (see paragraph (d)(2) of this section).

(1) *Introduction.* A control rule is a policy for establishing a limit or target fishing level that is based on the best available scientific information and is established by fishery managers in consultation with fisheries scientists. Control rules should be designed so that management actions become more conservative as biomass estimates, or other proxies, for a stock or stock complex decline and as science and management uncertainty increases. Examples of scientific uncertainty include uncertainty in the estimates of MFMT and biomass. Management uncertainty may include late catch reporting, misreporting, and underreporting of catches and is affected by a fishery's ability to control actual catch. For example, a fishery that has inseason catch data available and inseason closure authority has better management control and precision than a fishery that does not have these features.

(2) *Definitions.* (i) *Catch* is the total quantity of fish, measured in weight or numbers of fish, taken in commercial, recreational, subsistence, tribal, and other fisheries. Catch includes fish that are retained for any purpose, as well as mortality of fish that are discarded.

(ii) *Acceptable biological catch (ABC)* is a level of a stock or stock complex's annual catch that accounts for the scientific uncertainty in the estimate of OFL and any other scientific uncertainty (see paragraph (f)(3) of this section), and should be specified based on the ABC control rule.

(iii) *ABC control rule* means a specified approach to setting the ABC for a stock or stock complex as a function of the scientific uncertainty in the estimate of OFL and any other scientific uncertainty (*see* paragraph (f)(4) of this section).

(iv) *Annual catch limit (ACL)* is the level of annual catch of a stock or stock complex that serves as the basis for invoking AMs. ACL cannot exceed the ABC, but may be divided into sector-ACLs (*see* paragraph (f)(5) of this section).

(v) *Annual catch target (ACT)* is an amount of annual catch of a stock or stock complex that is the management target of the fishery, and accounts for management uncertainty in controlling the actual catch at or below the ACL. ACTs are recommended in the system of accountability measures so that ACL is not exceeded.

(vi) *ACT control rule* means a specified approach to setting the ACT for a stock or stock complex such that the risk of exceeding the ACL due to management uncertainty is at an acceptably low level.

(3) *Specification of ABC.* ABC may not exceed OFL (see paragraph (e)(2)(i)(D) of this section). Councils should develop a process for receiving scientific information and advice used to establish ABC. This process should: Identify the body that will apply the ABC control rule (*i.e.* , calculates the ABC), and identify the review process that will evaluate the resulting ABC. The SSC must recommend the ABC to the Council. An SSC may recommend an ABC that differs from the result of the ABC control rule calculation, based on factors such as data uncertainty, recruitment variability, declining trends in population variables, and other factors, but must explain why. For Secretarial FMPs or FMP amendments, agency scientists or a peer review process would provide the scientific advice to establish ABC. For internationally-assessed stocks, an ABC as defined in these guidelines is not required if they meet the international exception (*see* paragraph (h)(2)(ii)). While the ABC is allowed to equal OFL, NMFS expects that in most cases ABC will be reduced from OFL to reduce the probability that overfishing might occur in a year. Also, *see* paragraph (f)(5) of this section for cases where a Council recommends that ACL is equal to ABC, and ABC is equal to OFL.

(i) *Expression of ABC.* ABC should be expressed in terms of catch, but may be expressed in terms of landings as long as estimates of bycatch and any other fishing mortality not accounted for in the landings are incorporated into the determination of ABC.

(ii) *ABC for overfished stocks.* For overfished stocks and stock complexes, a rebuilding ABC must be set to reflect the annual catch that is consistent with the schedule of fishing mortality rates in the rebuilding plan.

(4) *ABC control rule.* For stocks and stock complexes required to have an ABC, each Council must establish an ABC control rule based on scientific advice from its SSC. The determination of ABC should be based, when possible, on the probability that an actual catch equal to the stock's ABC would result in overfishing. This probability that overfishing will occur cannot exceed 50 percent and should be a lower value. The ABC control rule should consider reducing fishing mortality as stock size declines and may establish a stock abundance level below which fishing would not be allowed. The process of establishing an ABC control rule could also involve science advisors or the peer review process established under Magnuson-Stevens Act section 302(g)(1)(E). The ABC control rule must articulate how ABC will be set compared to the OFL based on the scientific knowledge about the stock or stock complex and the scientific uncertainty in the estimate of OFL and any other scientific uncertainty. The ABC control rule should consider uncertainty in factors such as stock assessment results, time lags in updating assessments, the degree of retrospective revision of assessment results, and projections. The control rule may be used in a tiered approach to address different levels of scientific uncertainty.

(5) *Setting the annual catch limit*—(i) *General.* ACL cannot exceed the ABC and may be set annually or on a multiyear plan basis. ACLs in coordination with AMs must prevent overfishing (see MSA section 303(a)(15)). If a Council recommends an ACL which equals ABC, and the ABC is equal to OFL, the Secretary may presume that the proposal would not prevent overfishing, in the absence of sufficient analysis and justification for the approach. A ''multiyear plan'' as referenced in section 303(a)(15) of the Magnuson-Stevens Act is a plan that establishes harvest specifications or harvest guidelines for each year of a time period greater than 1 year. A multiyear plan must include a mechanism for specifying ACLs for each year with appropriate AMs to prevent overfishing and maintain an appropriate rate of rebuilding if the stock or stock complex is in a rebuilding plan. A multiyear plan must provide that, if an ACL is exceeded for a year, then AMs are triggered for the next year consistent with paragraph (g)(3) of this section.

(ii) *Sector-ACLs.* A Council may, but is not required to, divide an ACL into sector-ACLs. ''Sector,'' for purposes of this section, means a distinct user group to which separate management strategies and separate catch quotas apply. Examples of sectors include the commercial sector, recreational sector, or various gear groups within a fishery. If the management measures for different sectors differ in the degree of management uncertainty, then sector ACLs may be necessary so that appropriate AMs can be developed for each sector. If a Council chooses to use sector ACLs, the sum of sector ACLs must not exceed the stock or stock complex level ACL. The system of ACLs and AMs designed must be effective in protecting the stock or stock complex as a whole. Even if sector-ACLs and AMs are established, additional AMs at the stock or stock complex level may be necessary.

(iii) *ACLs for State-Federal Fisheries.* For stocks or stock complexes that have harvest in state or territorial waters, FMPs and FMP amendments should include an ACL for the overall stock that may be further divided. For example, the overall ACL could be divided into a Federal-ACL and state-ACL. However, NMFS recognizes that Federal management is limited to the portion of the fishery under Federal authority (*see* paragraph (g)(5) of this section). When stocks are co-managed by Federal, state, tribal, and/or territorial fishery managers, the goal should be to develop collaborative conservation and management strategies, and scientific capacity to support such strategies (including AMs for state or territorial and Federal waters), to prevent overfishing of shared stocks and ensure their sustainability.

(6) *ACT control rule.* If ACT is specified as part of the AMs for a fishery, an ACT control rule is utilized for setting the ACT. The ACT control rule should clearly articulate how management uncertainty in the amount of catch in the fishery is accounted for in setting ACT. The objective for establishing the ACT and related AMs is that the ACL not be exceeded.

(i) *Determining management uncertainty.* Two sources of management uncertainty should be accounted for in establishing the AMs for a fishery, including the ACT control rule if utilized: Uncertainty in the ability of managers to constrain catch so the ACL is not exceeded, and uncertainty in quantifying the true catch amounts (*i.e.,* estimation errors). To determine the level of management uncertainty in controlling catch, analyses need to consider past management performance in the fishery and factors such as time lags in reported catch. Such analyses must be based on the best available scientific information from an SSC, agency scientists, or peer review process as appropriate.

(ii) *Establishing tiers and corresponding ACT control rules.* Tiers can be established based on levels of management uncertainty associated with the fishery, frequency and accuracy of catch monitoring data

available, and risks of exceeding the limit. An ACT control rule could be established for each tier and have, as appropriate, different formulas and standards used to establish the ACT.

(7) A Council may choose to use a single control rule that combines both scientific and management uncertainty and supports the ABC recommendation and establishment of ACL and if used ACT.

(g) *Accountability measures.* The following features (see paragraphs (g)(1) through (5) of this section) of accountability measures apply to those stocks and stock complexes in the fishery.

(1) *Introduction.* AMs are management controls to prevent ACLs, including sector-ACLs, from being exceeded, and to correct or mitigate overages of the ACL if they occur. AMs should address and minimize both the frequency and magnitude of overages and correct the problems that caused the overage in as short a time as possible. NMFS identifies two categories of AMs, inseason AMs and AMs for when the ACL is exceeded.

(2) *Inseason AMs.* Whenever possible, FMPs should include inseason monitoring and management measures to prevent catch from exceeding ACLs. Inseason AMs could include, but are not limited to: ACT; closure of a fishery; closure of specific areas; changes in gear; changes in trip size or bag limits; reductions in effort; or other appropriate management controls for the fishery. If final data or data components of catch are delayed, Councils should make appropriate use of preliminary data, such as landed catch, in implementing inseason AMs. FMPs should contain inseason closure authority giving NMFS the ability to close fisheries if it determines, based on data that it deems sufficiently reliable, that an ACL has been exceeded or is projected to be reached, and that closure of the fishery is necessary to prevent overfishing. For fisheries without inseason management control to prevent the ACL from being exceeded, AMs should utilize ACTs that are set below ACLs so that catches do not exceed the ACL.

(3) *AMs for when the ACL is exceeded.* On an annual basis, the Council must determine as soon as possible after the fishing year if an ACL was exceeded. If an ACL was exceeded, AMs must be triggered and implemented as soon as possible to correct the operational issue that caused the ACL overage, as well as any biological consequences to the stock or stock complex resulting from the overage when it is known. These AMs could include, among other things, modifications of inseason AMs or overage adjustments. For stocks and stock complexes in rebuilding plans, the AMs should include overage adjustments that reduce the ACLs in the next fishing year by the full amount of the overages, unless the best scientific information available shows that a reduced overage adjustment, or no adjustment, is needed to mitigate the effects of the overages. If catch exceeds the ACL for a given stock or stock complex more than once in the last four years, the system of ACLs and AMs should be re-evaluated, and modified if necessary, to improve its performance and effectiveness. A Council could choose a higher performance standard (e.g., a stock's catch should not exceed its ACL more often than once every five or six years) for a stock that is particularly vulnerable to the effects of overfishing, if the vulnerability of the stock has not already been accounted for in the ABC control rule.

(4) *AMs based on multi-year average data.* Some fisheries have highly variable annual catches and lack reliable inseason or annual data on which to base AMs. If there are insufficient data upon which to compare catch to ACL, either inseason or on an annual basis, AMs could be based on comparisons of average catch to average ACL over a three-year moving average period or, if supported by analysis, some other appropriate multi-year period. Councils should explain why basing AMs on a multi-year period is appropriate. Evaluation of the moving average catch to the average ACL must be conducted annually and AMs should be implemented if the average catch exceeds the average ACL. As a performance standard, if the average catch exceeds the average ACL for a stock or stock complex more than once in the last four years, then the system of ACLs and AMs should be re-evaluated and modified if necessary to improve its performance and effectiveness. The initial ACL and management measures may incorporate information from previous years so that AMs based on average ACLs can be applied from the first year. Alternatively, a Council could use a stepped approach where in year-1, catch is compared to the ACL for year-1; in year-2 the average catch for the past 2 years is compared to the average ACL; then in year 3 and beyond, the most recent 3 years of catch are compared to the corresponding ACLs for those years.

(5) *AMs for State-Federal Fisheries.* For stocks or stock complexes that have harvest in state or territorial waters, FMPs and FMP amendments must, at a minimum, have AMs for the portion of the fishery under Federal authority. Such AMs could include closing the EEZ when the Federal portion of the ACL is reached, or the overall stock's ACL is reached, or other measures.

(h) *Establishing ACL mechanisms and AMs in FMPs.* FMPs or FMP amendments must establish ACL mechanisms and AMs for all stocks and stock complexes in the fishery, unless paragraph (h)(2) of this section is applicable. These mechanisms should describe the annual or multiyear process by which specific ACLs, AMs, and other reference points such as OFL, and ABC will be established. If a complex has multiple indicator stocks, each indicator stock must have its own ACL; an additional ACL for the stock complex as a whole is optional. In cases where fisheries (e.g., Pacific salmon) harvest multiple indicator stocks of a single species that cannot be distinguished at the time of capture, separate ACLs for the indicator stocks are not required and the ACL can be established for the complex as a whole.

(1) In establishing ACL mechanisms and AMs, FMPs should describe:

(i) Timeframes for setting ACLs (e.g., annually or multi-year periods);

(ii) Sector-ACLs, if any (including set-asides for research or bycatch);

(iii) AMs and how AMs are triggered and what sources of data will be used (e.g., inseason data, annual catch compared to the ACL, or multi-year averaging approach); and

(iv) Sector-AMs, if there are sector-ACLs.

(2) *Exceptions from ACL and AM requirements*—(i) *Life cycle.* Section 303(a)(15) of the Magnuson-Stevens Act ''shall not apply to a fishery for species that has a life cycle of approximately 1 year unless the Secretary has determined the fishery is subject to overfishing of that species'' (as described in Magnuson-Stevens Act section 303 note). This exception applies to a stock for which the average length of time it takes for an individual to produce a reproductively active offspring is approximately 1 year and that the individual has only one breeding season in its lifetime. While exempt from the ACL and AM requirements, FMPs or FMP amendments for these stocks must have SDC, MSY, OY, ABC, and an ABC control rule.

(ii) *International fishery agreements.* Section 303(a)(15) of the Magnuson-Stevens Act applies ''unless otherwise provided for under an international agreement in which the United States participates'' (Magnuson-Stevens Act section 303 note). This exception applies to stocks or stock complexes

subject to management under an international agreement, which is defined as ''any bilateral or multilateral treaty, convention, or agreement which relates to fishing and to which the United States is a party'' (see Magnuson-Stevens Act section 3(24)). These stocks would still need to have SDC and MSY.

(3) *Flexibility in application of NS1 guidelines*. There are limited circumstances that may not fit the standard approaches to specification of reference points and management measures set forth in these guidelines. These include, among other things, conservation and management of Endangered Species Act listed species, harvests from aquaculture operations, and stocks with unusual life history characteristics (e.g., Pacific salmon, where the spawning potential for a stock is spread over a multi-year period). In these circumstances, Councils may propose alternative approaches for satisfying the NS1 requirements of the Magnuson-Stevens Act than those set forth in these guidelines. Councils must document their rationale for any alternative approaches for these limited circumstances in an FMP or FMP amendment, which will be reviewed for consistency with the Magnuson-Stevens Act.

(i) *Fisheries data*. In their FMPs, or associated public documents such as SAFE reports as appropriate, Councils must describe general data collection methods, as well as any specific data collection methods used for all stocks in the fishery, and EC species, including:

(1) Sources of fishing mortality (both landed and discarded), including commercial and recreational catch and bycatch in other fisheries;

(2) Description of the data collection and estimation methods used to quantify total catch mortality in each fishery, including information on the management tools used (i.e., logbooks, vessel monitoring systems, observer programs, landings reports, fish tickets, processor reports, dealer reports, recreational angler surveys, or other methods); the frequency with which data are collected and updated; and the scope of sampling coverage for each fishery; and

(3) Description of the methods used to compile catch data from various catch data collection methods and how those data are used to determine the relationship between total catch at a given point in time and the ACL for stocks and stock complexes that are part of a fishery.

(j) *Council actions to address overfishing and rebuilding for stocks and stock complexes in the fishery*—(1) *Notification*. The Secretary will immediately notify in writing a Regional Fishery Management Council whenever it is determined that:

(i) Overfishing is occurring;

(ii) A stock or stock complex is overfished;

(iii) A stock or stock complex is approaching an overfished condition; or

(iv) Existing remedial action taken for the purpose of ending previously identified overfishing or rebuilding a previously identified overfished stock or stock complex has not resulted in adequate progress.

(2) *Timing of actions*—(i) *If a stock or stock complex is undergoing overfishing*. FMPs or FMP amendments must establish ACL and AM mechanisms in 2010, for stocks and stock complexes determined to be subject to overfishing, and in 2011, for all other stocks and stock complexes (*see* paragraph (b)(2)(iii) of this section). To address practical implementation aspects of the FMP and FMP amendment process, paragraphs (j)(2)(i)(A) through (C) of this section clarifies the expected timing of actions.

(A) In addition to establishing ACL and AM mechanisms, the ACLs and AMs themselves must be specified in FMPs, FMP amendments, implementing regulations, or annual specifications beginning in 2010 or 2011, as appropriate.

(B) For stocks and stock complexes still determined to be subject to overfishing at the end of 2008, ACL and AM mechanisms and the ACLs and AMs themselves must be effective in fishing year 2010.

(C) For stocks and stock complexes determined to be subject to overfishing during 2009, ACL and AM mechanisms and ACLs and AMs themselves should be effective in fishing year 2010, if possible, or in fishing year 2011, at the latest.

(ii) *If a stock or stock complex is overfished or approaching an overfished condition*. (A) For notifications that a stock or stock complex is overfished or approaching an overfished condition made before July 12, 2009, a Council must prepare an FMP, FMP amendment, or proposed regulations within one year of notification. If the stock or stock complex is overfished, the purpose of the action is to specify a time period for ending overfishing and rebuilding the stock or stock complex that will be as short as possible as described under section 304(e)(4) of the Magnuson-Stevens Act. If the stock or stock complex is approaching an overfished condition, the purpose of the action is to prevent the biomass from declining below the MSST.

(B) For notifications that a stock or stock complex is overfished or approaching an overfished condition made after July 12, 2009, a Council must prepare and implement an FMP, FMP amendment, or proposed regulations within two years of notification, consistent with the requirements of section 304(e)(3) of the Magnuson-Stevens Act. Council actions should be submitted to NMFS within 15 months of notification to ensure sufficient time for the Secretary to implement the measures, if approved. If the stock or stock complex is overfished and overfishing is occurring, the rebuilding plan must end overfishing immediately and be consistent with ACL and AM requirements of the Magnuson-Stevens Act.

(3) *Overfished fishery*. (i) Where a stock or stock complex is overfished, a Council must specify a time period for rebuilding the stock or stock complex based on factors specified in Magnuson-Stevens Act section 304(e)(4). This target time for rebuilding (T_{target}) shall be as short as possible, taking into account: The status and biology of any overfished stock, the needs of fishing communities, recommendations by international organizations in which the U.S. participates, and interaction of the stock within the marine ecosystem. In addition, the time period shall not exceed 10 years, except where biology of the stock, other environmental conditions, or management measures under an international agreement to which the U.S. participates, dictate otherwise. SSCs (or agency scientists or peer review processes in the case of Secretarial actions) shall provide recommendations for achieving rebuilding targets (*see* Magnuson-Stevens Act section 302(g)(1)(B)). The above factors enter into the specification of T_{target} as follows:

(A) The ''minimum time for rebuilding a stock'' (T_{min}) means the amount of time the stock or stock complex is expected to take to rebuild to its MSY biomass level in the absence of any fishing mortality. In this context, the term ''expected'' means to have at least a 50 percent probability of attaining the B_{msy}.

(B) For scenarios under paragraph (j)(2)(ii)(A) of this section, the starting year for the T_{min} calculation is the first year that a rebuilding plan is implemented. For scenarios under paragraph (j)(2)(ii)(B) of this section, the starting year for the T_{min} calculation is 2 years after notification that a stock or stock complex is overfished or the first year that a rebuilding plan is implemented, whichever is sooner.

(C) If T_{min} for the stock or stock complex is 10 years or less, then the maximum time allowable for rebuilding (T_{max}) that stock to its B_{msy} is 10 years.

(D) If T_{min} for the stock or stock complex exceeds 10 years, then the maximum time allowable for rebuilding a stock or stock complex to its B_{msy} is T_{min} plus the length of time associated with one generation time for that stock or stock complex. ''Generation time'' is the average length of time between when an individual is born and the birth of its offspring.

(E) T_{target} shall not exceed T_{max}, and should be calculated based on the factors described in this paragraph (j)(3).

(ii) If a stock or stock complex reached the end of its rebuilding plan period and has not yet been determined to be rebuilt, then the rebuilding F should not be increased until the stock or stock complex has been demonstrated to be rebuilt. If the rebuilding plan was based on a T_{target} that was less than T_{max}, and the stock or stock complex is not rebuilt by T_{target}, rebuilding measures should be revised, if necessary, such that the stock or stock complex will be rebuilt by T_{max}. If the stock or stock complex has not rebuilt by T_{max}, then the fishing mortality rate should be maintained at $F_{rebuild}$ or 75 percent of the MFMT, whichever is less.

(iii) Council action addressing an overfished fishery must allocate both overfishing restrictions and recovery benefits fairly and equitably among sectors of the fishery.

(iv) For fisheries managed under an international agreement, Council action addressing an overfished fishery must reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States.

(4) *Emergency actions and interim measures.* The Secretary, on his/her own initiative or in response to a Council request, may implement interim measures to reduce overfishing or promulgate regulations to address an emergency (Magnuson-Stevens Act section 304(e)(6) or 305(c)). In considering a Council request for action, the Secretary would consider, among other things, the need for and urgency of the action and public interest considerations, such as benefits to the stock or stock complex and impacts on participants in the fishery.

(i) These measures may remain in effect for not more than 180 days, but may be extended for an additional 186 days if the public has had an opportunity to comment on the measures and, in the case of Council-recommended measures, the Council is actively preparing an FMP, FMP amendment, or proposed regulations to address the emergency or overfishing on a permanent basis.

(ii) Often, these measures need to be implemented without prior notice and an opportunity for public comment, as it would be impracticable to provide for such processes given the need to act quickly and also contrary to the public interest to delay action. However, emergency regulations and interim measures that do not qualify for waivers or exceptions under the Administrative Procedure Act would need to follow proposed notice and comment rulemaking procedures.

(k) *International overfishing.* If the Secretary determines that a fishery is overfished or approaching a condition of being overfished due to excessive international fishing pressure, and for which there are no management measures (or no effective measures) to end overfishing under an international agreement to which the United States is a party, then the Secretary and/or the appropriate Council shall take certain actions as provided under Magnuson-Stevens Act section 304(i). The Secretary, in cooperation with the Secretary of State, must immediately take appropriate action at the international level to end the overfishing. In addition, within one year after the determination, the Secretary and/or appropriate Council shall:

(1) Develop recommendations for domestic regulations to address the relative impact of the U.S. fishing vessels on the stock. Council recommendations should be submitted to the Secretary.

(2) Develop and submit recommendations to the Secretary of State, and to the Congress, for international actions that will end overfishing in the fishery and rebuild the affected stocks, taking into account the relative impact of vessels of other nations and vessels of the United States on the relevant stock. Councils should, in consultation with the Secretary, develop recommendations that take into consideration relevant provisions of the Magnuson-Stevens Act and NS1 guidelines, including section 304(e) of the Magnuson-Stevens Act and paragraph (j)(3)(iv) of this section, and other applicable laws. For highly migratory species in the Pacific, recommendations from the Western Pacific, North Pacific, or Pacific Councils must be developed and submitted consistent with Magnuson-Stevens Reauthorization Act section 503(f), as appropriate.

(3) *Considerations for assessing ''relative impact.''* ''Relative impact'' under paragraphs (k)(1) and (2) of this section may include consideration of factors that include, but are not limited to: Domestic and international management measures already in place, management history of a given nation, estimates of a nation's landings or catch (including bycatch) in a given fishery, and estimates of a nation's mortality contributions in a given fishery. Information used to determine relative impact must be based upon the best available scientific information.

(l) *Relationship of National Standard 1 to other national standards—General.* National Standards 2 through 10 provide further requirements for conservation and management measures in FMPs, but do not alter the requirement of NS1 to prevent overfishing and rebuild overfished stocks.

(1) *National Standard 2 (see § 600.315).* Management measures and reference points to implement NS1 must be based on the best scientific information available. When data are insufficient to estimate reference points directly, Councils should develop reasonable proxies to the extent possible (*also see* paragraph (e)(1)(iv) of this section). In cases where scientific data are severely limited, effort should also be directed to identifying and gathering the needed data. SSCs should advise their Councils regarding the best scientific information available for fishery management decisions.

(2) *National Standard 3 (see § 600.320).* Reference points should generally be specified in terms of the level of stock aggregation for which the best scientific information is available (*also see* paragraph (e)(1)(iii) of this section). Also, scientific assessments must be based on the best information about the total range of the stock and potential biological structuring of the stock into biological sub-units, which may differ from the geographic units on which management is feasible.

(3) *National Standard 6 (see § 600.335).* Councils must build into the reference points and control rules appropriate consideration of risk, taking into account uncertainties in estimating harvest, stock conditions, life history parameters, or the effects of environmental factors.

(4) *National Standard 8 (see § 600.345).* National Standard 8 directs the Councils to apply economic and social factors towards sustained participation of fishing communities and to the extent practicable, minimize adverse economic impacts on such communities within the context of preventing overfishing and rebuilding overfished stocks as required under National Standard 1. Therefore, calculation of OY as reduced from MSY

should include economic and social factors, but the combination of management measures chosen to achieve the OY must principally be designed to prevent overfishing and rebuild overfished stocks.

(5) *National Standard 9 (see § 600.350).* Evaluation of stock status with respect to reference points must take into account mortality caused by bycatch. In addition, the estimation of catch should include the mortality of fish that are discarded.

(m) *Exceptions to requirements to prevent overfishing.* Exceptions to the requirement to prevent overfishing could apply under certain limited circumstances. Harvesting one stock at its optimum level may result in overfishing of another stock when the two stocks tend to be caught together (This can occur when the two stocks are part of the same fishery or if one is bycatch in the other's fishery). Before a Council may decide to allow this type of overfishing, an analysis must be performed and the analysis must contain a justification in terms of overall benefits, including a comparison of benefits under alternative management measures, and an analysis of the risk of any stock or stock complex falling below its MSST. The Council may decide to allow this type of overfishing if the fishery is not overfished and the analysis demonstrates that all of the following conditions are satisfied:

(1) Such action will result in long-term net benefits to the Nation;

(2) Mitigating measures have been considered and it has been demonstrated that a similar level of long-term net benefits cannot be achieved by modifying fleet behavior, gear selection/configuration, or other technical characteristic in a manner such that no overfishing would occur; and

(3) The resulting rate of fishing mortality will not cause any stock or stock complex to fall below its MSST more than 50 percent of the time in the long term, although it is recognized that persistent overfishing is expected to cause the affected stock to fall below its B_{msy} more than 50 percent of the time in the long term.

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