

**NMFS Report: Electronic Monitoring Regulatory Changes**  
**Prepared by NMFS West Coast Region,**  
**PFMC Meeting, Vancouver, WA**  
**April 4-10, 2020**

NMFS is providing this report to support the Council's discussion of changes to the regulations governing the Pacific Coast Groundfish electronic monitoring (EM) program at 50 CFR 660.600-604. We recommend the following changes to the regulations to ensure an effective and efficient EM program. We are also reviewing the draft EM Program Guidelines to determine whether any of the guidelines should be incorporated into the regulations, and may provide a supplemental NMFS report with additional recommendations, if any.

*1. Hard Drive Deadlines*

At the request of EFP participants, the deadlines for submission of hard drives in the 2020 EFPs were extended to 72 hours after the beginning of the offload (and no more than 10 days after the end of the first trip on the hard drive). The deadline was previously 24 hours after the beginning of the offload (and no more than 10 days after the end of the first trip on the hard drive). The regulations at §660.604(s)(3) still contain the 24-hour deadline. **NMFS recommends revising the regulations to match the 72-hour deadline for hard drive submissions in the current EM EFPs.** This change would provide additional time for vessel operators to comply with the requirement with minimal impact to the timeliness of data. It would also prevent confusion when EM vessels transition from the EM EFPs to the EM regulations.

*2. Reusing Hard Drives*

The regulations at §660.603(m)(3) require that an EM service provider remove EM data from the hard drive or other medium before returning them to the field. This measure was included to ensure the protection of vessel owner's EM data files, which contain sensitive information. NMFS has determined, however, that removing EM data from hard drives or other media is not necessary to protect the EM data if the files are protected using end-to-end encryption. End-to-end encryption is a system of communication where the messages are encrypted by the sender and only the recipient with the encryption key may decrypt and read them. Third parties without the encryption key do not have the means to read the files. NMFS believes that end-to-end encryption would provide sufficient protection for EM data files. **Therefore, NMFS recommends revising the regulations to require EM data to be removed from a hard drive before reusing it only if end-to-end encryption is not used.** This change would also extend the life of hard drives and reduce program costs, because "scrubbing" can shorten the life of a hard drive. NMFS implemented this policy in the EM EFP around 2017 and it is consistent with policies in other regions. This revision to the regulations would still allow vessel owners to work with their service providers to implement more strict requirements for the treatment of hard drives.

*3. Limit on Switching Between EM and Observers for Whiting*

The Council's final preferred alternative for whiting vessels included a limit on the number of times a vessel may switch between using observers and using EM in the same year. This measure was incorporated into the regulations at §660.604(m). The limit was intended to prevent frequent switching that could disrupt deployment planning and affect the availability of observers. NMFS discussed this measure in more detail in the whiting/fixed gear [EM proposed rule](#). The Council took an alternative approach for fixed gear, bottom trawl, and non-whiting midwater trawl vessels in which vessel owners submit a tentative fishing plan each year that describes their intentions to use EM or observers for the upcoming fishing year. The WCGOP and observer providers could then use this information for planning purposes. The fishing plan is not binding on vessel owners, maintaining their operational flexibility, but would provide the information needed for planning observer demand. This alternative approach was implemented for all gear types in the application process laid out in the final regulations, but the limit on switching was not removed for whiting vessels, as it was for other gear types, because it was developed in April 2016 after final action on the whiting regulations in November 2015. Whiting industry members did not anticipate switching between observers and EM and so did not oppose this measure at the April meeting.

**NMFS recommends removing the limit on switching for whiting vessels at §660.604(m).** Removing the limit on switching and adopting the tentative fishing plan for whiting vessels would reduce the reporting burden for whiting vessel operators and eliminate a redundant and unnecessary regulation. NMFS believes the limit on switching for whiting would be ineffective at preventing disruptions to observer planning, because it still allows for last-minute switching. NMFS believes requiring whiting vessel owners to submit a tentative fishing plan as for other vessels already provides the information NMFS needs and with more notice. NMFS has already waived the limit on switching for whiting vessels in the final rule, as provided for in the regulations, and does not anticipate reinstating it in the future. Therefore, NMFS believes this requirement is unnecessary and can be eliminated.

#### *4. MS/CV Endorsement*

The EM regulations at §660.604(e)(iii) include a requirement for a vessel participating in the mothership sector to have a valid MS/CV endorsement to qualify for EM. This requirement was included in the EM EFPs because having valid permits for the intended fishing activity is a standard requirement for EFP eligibility. The requirement was subsequently incorporated into the EM regulations. However, it has been brought to our attention that an MS/CV endorsement is not required to participate in the mothership sector. The regulations at §660.150(g)(1) allow for a vessel without an MS/CV endorsement, but that is enrolled in the mothership cooperative to deliver to a mothership. **Therefore, NMFS recommends removing the requirement for an MS/CV endorsement to use EM on MS/CV trips.**

#### *5. Pre-departure Test*

The EM regulations at §660.604(j)(7) and (1)(2) require an EM system to allow the vessel operator to test the functionality of the EM system and require the vessel operator to conduct a system function test at the start of each EM trip. This requirement was included in both the EM EFP and regulations to ensure that EM units are functioning at the start of each trip, to identify malfunctions before a trip starts when they can more easily be fixed, and to reduce the likelihood that a malfunction would impact data quality. However, not all EM units have system functionality tests, so this requirement may prevent some EM units from qualifying for the program. **The Council may wish to consider removing the requirement for EM units to have a system function test.** Removing the system function from the list of EM system performance standards may expand the number of qualified EM units and providers available to fishery participants. NMFS believes it is beneficial for vessel operators to be able to test and easily determine issues with the EM system prior to leaving the dock, but may not be necessary to require. It would still be the responsibility of the vessel operator to ensure that the EM system is functioning for the entire trip. Vessel owners/operators could still choose an EM system that has a function test if they would like to have that feature to mitigate their own risk.

## 6. Logbook Processing

The current EM regulations assume NMFS would receive and process EM discard logbooks. The data flow envisioned in the regulations and the [draft EM Program Manual](#) has vessel operators submitting logbooks to NMFS; WCGOP would data enter and QA/QC the logbooks, which would then be used to initially debit discards from vessel accounts. WCGOP would make some logbook data available to EM providers to use in the video review (e.g., codend capacity) but most logbook data would be withheld to ensure that the video review is done blind. At the November GEMPAC meeting, GEMPAC members expressed interest in an alternative model in which EM service providers would receive, data enter, and QA/QC logbook data, and submit the logbook data to NMFS. **The Council may wish to consider revising the regulations to require that EM service providers process logbooks rather than NMFS.**

NMFS proposed to receive and process the logbooks directly to ensure the video review is done blind and to reduce costs for EM vessels by reducing the responsibilities of EM service providers. However, as participants in the November GEMPAC meeting pointed out, fishery participants would still bear the cost of logbook processing by NMFS through cost recovery fees and EM service providers may be more cost effective. Having NMFS process logbooks directly would require more back-and-forth with EM service providers to match logbooks with EM trips, select trips or hauls for review, compare logbook and EM discard estimates, and investigate any discrepancies. It may be more efficient and cost effective to have EM service providers receive both logbooks and EM data directly and process and QA/QC them internally, and simply report final data to NMFS. This would expedite data to the vessel account system and make the video review process quicker, reducing costs. Having service providers process logbooks would also allow vessel operators to work out the submission method for the logbooks with their EM service provider, such as by email. Logbooks submitted to NMFS would have to be submitted via a secure transmission method to comply with confidentiality and data security requirements, which would prevent NMFS from receiving logbooks by the current email method. NMFS would support changing the regulations to have EM service providers process logbook data if this is what the Council recommends. If this change is implemented, NMFS could use its debriefing procedures to QA/QC logbook data quality and to check for potential bias in the video review.

## 7. Reporting Deadlines for EM Service Providers

The current EM regulations contain several reports that EM service providers must submit to NMFS with EM summary data to use in debiting vessel accounts, but no timelines for deadlines for those reports. Not including reporting deadlines in the regulations may have been an oversight as NMFS and the Council were still developing the requirements for third party video review when the whiting/fixed gear regulations were being developed in 2015-2016. NMFS believes it is important to have concrete deadlines for these reports in the regulations to ensure the timely submission of discard estimates, which are essential for discard accounting in the Trawl Program, and to provide clear expectations for all participants. Without clear deadlines in the regulations, NMFS may not be able to enforce timely submission of EM data. The reports in the regulations that need deadlines are:

- A. Reports of technical assistance at §660.603(k).
- B. Logbook data (see #6 *Logbook Processing* above).
- C. Vessel operator feedback reports at §660.603(m)(4).
- D. EM summary data and compliance reports (§660.603(m)(5)).

For Item 7.A, reports of technical assistance allow NMFS to monitor the performance of EM systems and field services and provide a heads-up to NMFS and the Office of Law Enforcement about potential compliance or data quality issues that may require follow-up. **NMFS recommends these reports be required to be**

**submitted within 24 hours of the provider being notified of the issue.** This is consistent with how these notifications have occurred in the EM EFP.

Item 7.B refers to when the EM service provider would be required to data enter and submit the logbook data, if the Council decides that EM service providers should process EM discard logbooks instead of NMFS. Under the regulations, vessel operators are required to submit logbooks to NMFS within 24 hours of trip end, either by mail or email. In the EM EFP, PSMFC typically processes logbooks within 2 business days of receipt, which results in initial discard data being debited from accounts within approximately 1 week of trip end. Sometimes logbooks may be submitted incomplete or with errors and require follow-up and resubmission of logbook data several days or weeks later. If the Council decides that EM providers should process logbooks, **NMFS recommends that EM service providers submit initial logbook data within 2 business days of receipt from the vessel operator.** This timeline would ensure timely debiting of discards from vessel accounts, consistent with current timelines for the EM EFPs and observer data. Starting the “clock” with receipt of the logbook and setting the deadline for initial, rather than final, logbook data would ensure providers are not held responsible for late or incomplete submissions from vessel operators. After initial logbook submission, the EM service provider would be required to work with the vessel operator to revise and submit updated logbook data, if appropriate.

Items 7.C and 7.D are dependent on completion of the video review. The EM service provider is required to provide feedback to the vessel operator, and field services staff where appropriate, on issues with the EM system, catch handling, etc. In the EM EFP, these reports take the form of emails to the vessel operator, vessel owner, the EFP sponsor in some cases, and NMFS, with the drive report attached. The EM service provider is required to submit EM summary data (e.g., discard estimates, fishing activity information, and metadata) to NMFS following completion of the video review for NMFS to use in debiting vessel accounts, monitoring program and vessel performance, and enforcing requirements of the EM program.

In the EM EFP, reporting timelines for PSMFC have ranged from 1-2 weeks after receipt of the hard drive in 2015 to 1-2 months during periods of higher fishing activity in 2019. Feedback from prospective EM service providers is that 3 weeks after receipt of the hard drive may be a reasonable timeline for completion of the video review and submission of reports. Starting the clock after receipt of the hard drive would ensure that EM service providers are not held responsible for late submissions by vessel operators. A shorter timeline may be more difficult for EM service providers to meet if they receive several hard drives at once, such as during busy times of the year. However, a longer timeline may not provide timely feedback to vessel operators and updates to discard data. Discards would initially be debited using logbook data, so discards would largely be accounted for. But if there are large discrepancies between the logbook and EM data, then a longer reporting timeline may result in “surprise” debits to vessel accounts or a vessel account owner not being able to “close-out” their account after they have completed fishing until the EM data is received. We have dealt with similar concerns in the EM EFP and with the finalization of observer data at the start of the Trawl Program. The WCGOP worked hard to address these concerns and now observer data is typically final within 1-2 weeks of trip end.

It is also critically important to provide timely feedback to vessel captains and crew on catch handling, EM system care, and other aspects of operations that affect data quality. Hard drives are due no more than 10 days after completion of the first trip on the hard drive (or after each trip for MS/CV). A 3-week deadline to complete the video review and submit reports could result in EM data being available approximately 4-5 weeks from the date of the first trip on the hard drive. **NMFS recommends a 3-week deadline for completion of the video review and submission of reports for Items 7.C and D, but is interested in GMT and GEMPAC/TAC input on whether this deadline or an alternate deadline is appropriate.**

## *8. Retention of EM Data*

The EM regulations at §660.603(m)(6) require that EM service providers retain EM data, including raw video data, on behalf of vessel owners for a minimum of 3 years after the date of landing. The Council has expressed a desire to reduce the data storage period, specifically for raw video data, and has been awaiting completion of the National Procedural Directive on Minimum Data Retention Period for Electronic Monitoring Programs for Federally Managed U.S. Fisheries. This draft is undergoing a final internal review and NMFS Office of Science & Technology anticipates finalizing it for the supplemental briefing book.