

**Deeming of Electronic Monitoring Regulations for Whiting and Fixed Gear Fisheries
Prepared by NMFS West Coast Regional Office
PFMC Meeting, April 8-14, 2016**

In this report, NMFS is providing the regulatory text that we intend to include in the proposed rule that would implement the electronic monitoring (EM) regulatory amendment to the Pacific Coast Groundfish Fishery Management Plan, if approved. We are submitting these regulations to the Council so that the Council can consider the regulations for deeming necessary and appropriate, in accordance with 303(c) of the Magnuson-Stevens Act. Please review Appendix I under the Council's deeming procedures. After Council discussion, the Council may wish to allow Council staff to do a final review and deem any changes that are made to address the Council's comments. This report also includes additional information and responses to common questions, to provide context for the regulations.

Draft Regulations

The regulations reflect the Council's final preferred alternatives (FPAs) for whiting that the Council selected at its November 2015 meeting, and fixed gear, which the Council last considered in September 2014. Please note that if the Council revises the fixed gear FPA at this meeting, the regulations and Council's analytical document will need to be revised accordingly.

We are proposing to house the EM requirements in a new subpart, Subpart J, and cross-reference existing sections of the groundfish regulations as needed. This would allow for a more intuitive organizational structure and room to incorporate potential future EM programs in other sectors. The regulations are generally consistent with the reports NMFS provided to the Council and its advisory bodies at the September and November 2015 Council meetings, and the January 2016 GEMPAC/TAC webinar. We refined our "tiered" approach, including the role of program guidelines, and our approach to considering and approving EM service providers, based on comments from the GEMPAC/TAC. We discuss these changes in further detail below as well as some other aspects of the regulations that may be of particular interest to the Council.

1. *Video review funding* – As we discussed with the Council in November, we included regulations for vessels to obtain video review services from third party service providers. We still intend for Pacific States Marine Fisheries Commission to conduct the video review initially, so the regulations reflect that requirements for third party video review would not take effect until January 1, 2020. Since PSMFC's video review is contingent upon available NMFS funding, third party video review could take effect earlier. Therefore, the regulations note that NMFS may implement these requirements earlier

with six months prior notice in the Federal Register to provide industry and providers sufficient time to prepare.

2. *Tiered approach* – As we have previously discussed with the Council, we took a tiered approach to the regulations that consists of 1) general performance standards and requirements in regulation, 2) EM program guidelines that describe best practices for meeting the performance standards, and 3) regulatory requirements for the development of individual vessel monitoring plans and provider plans. We have had much discussion with the GEMPAC about how to construct the regulations, particularly for EM service providers, to strike a balance between having sufficient oversight of the providers to ensure adequate data quality, while providing flexibility for different service delivery models that would achieve the program’s objectives. EFP participants, and NMFS, have both appreciated the flexibility afforded by the EFP program and would like to keep that flexibility as much as possible when the program moves to regulations.

We decided that a VMP-like approach may provide this balance for EM service providers, as well as individual vessels. We created a requirement for an EM Service Plan, which would operate similar to a VMP and be submitted with the service provider’s application for a provider permit. As a result, the regulations provide a more streamlined list of provider responsibilities and instead require the service provider to describe in their plan how they would to provide services to the fleet. This allows different service providers to propose, and NMFS to consider, different service delivery models while providing NMFS sufficient oversight and vetting of the provider’s plan before issuing the permit. This approach will provide the right balance for NMFS, vessel owners, and EM service providers, and enable all the parties to maintain the type of flexibility we have enjoyed under the EFPs.

3. *EM program guidelines* – **NMFS is seeking ideas from the GEMPAC and other Council advisory bodies as to what information or best practices should be included in the guidelines that would be helpful to developing vessel and provider plans.** NMFS will use these ideas to develop EM Program Guidelines that would provide some guidance to EM providers and vessel owners in developing their plans to meet the requirements in the regulations. The guidelines would not be requirements, which are specified in the regulations, but rather suggestions, best practices, examples and templates that NMFS believes would best meet the regulations. EM service providers and vessel owners would be able to propose alternate approaches, and NMFS could consider whether they would meet the regulations. NMFS has attached a draft outline for the guidelines in Appendix II that includes some best practices we have already learned from the EFPs. NMFS is seeking ideas from the GEMPAC and other Council advisory bodies for other information or best practices to include in the draft guidelines. NMFS would publish a more complete draft, to the extent that it is available, with the proposed rule for public comment and post the final guidelines on its website.
4. *Provider endorsements* – The regulations reflect a single endorsement for EM service providers rather than the separate endorsements for equipment and video review service providers that were in previous versions of the draft regulations reviewed by the

GEMPAC. Upon further review of the two-endorsement approach we realized that this approach might introduce unnecessary complications. The purpose of having separate endorsements was to provide maximum flexibility to service providers and vessel owners to use different service delivery models. However, if service providers were permitted individually, vessel owners would be faced with an a la carte menu of equipment and video review service providers and have to figure out how to make them fit together. Whereas under a single endorsement, the permitted service providers would all offer the full suite of services making it much easier for a vessel owner to select a provider. If a service provider were interested in only offering equipment services, they could still qualify for an endorsement if they partnered with a video review service provider and applied for the endorsement together as a complete package. In this way, the single endorsement approach still offers flexibility to service providers to use different service delivery models, but puts the onus on the service providers to figure out how to work together, rather than on the vessel owners or NMFS. The single endorsement approach also streamlines the provider regulations for those providers that do offer the full suite of services.

5. *Eligibility criteria* - The Council's decision document considered "no IFQ deficits" and "no civil or criminal penalties...exceeding a certain amount" as eligibility criteria for vessels. There are existing regulations and penalties to address such violations and allowing a vessel to be disqualified from using EM because of these criteria could be construed as additional punishment. In addition, we believe the criterion that the owner and operator must be "willing and able" to comply with the requirements of the EM program, would allow us to consider past penalty history, making this additional criterion unnecessary. Therefore, **NMFS recommends against using these as eligibility criteria, and has instead included criterion for the vessel owner and operator to be willing and able to comply with the requirements of the EM program.**

We added eligibility criteria for EM service providers that NMFS would evaluate on an ongoing basis. Like the eligibility criteria for vessels, this provides NMFS a management response when a provider is not meeting the requirements of the program, which would be separate from and more responsive than potential enforcement action by OLE.

6. *Declarations* – Consistent with the Council's FPAs, we included limits on switching between observers and electronic monitoring during the year in order to facilitate planning of scientific observer coverage. These took the form of annual limits on changing declarations to 1) twice for whiting vessels and 2) zero for fixed gear vessels. During the EFPs, both whiting and fixed gear vessels have not been switching between observers and EM as was originally projected. Most likely vessels would not switch to an observer unless there was an EM system malfunction that could not be fixed in a timely manner. **NMFS is seeking comment from the GEMPAC/TAC and Council on the appropriateness of the proposed limits.** For whiting vessels, we propose including language that NMFS may waive the requirement, but reinstitute it at a future time if circumstances change (with appropriate notice).

7. *Malfunctions* – The regulations reflect a different approach to EM system malfunctions from the 2015 EFPs that we think will be simpler for all parties involved. In the 2015 EFPs, vessel operators that had an EM system malfunction at sea would call NMFS to get further instructions. This approach was necessary in the first year because NMFS and EFP participants were uncertain about the types and frequency of malfunctions that might occur and needed the flexibility to handle incidents on a case-by-case basis. However, this approach was not intended to be a long-term solution and, although it worked fairly well in 2015, there were instances where a captain did not have a satellite phone or cell coverage and was not able to call NMFS. With what we have learned about malfunctions from 2015, we want to take a more proactive approach to handling malfunctions and work with captains to put mitigating measures and plans to respond to malfunctions in their VMPs.

In the 2016 EFPs, we are working with EFP participants and Archipelago to identify which malfunctions would require a vessel to return to port. We are encouraging EFP participants to use this information to work with Archipelago to plan ahead and develop measures to address the malfunctions if they occur at sea. These plans would be documented in their VMPs and reviewed and accepted by NMFS, and could be unique to each operation. This approach allows captains to evaluate and mitigate their risk in the context of their individual operations, and negates having to call NMFS from sea. We think this approach is a more practical, long-term solution and have incorporated it into the regulations.

8. *Optimized retention for fixed gear* – The regulations reflect the Council’s final preferred alternative for optimized retention for fixed gear vessels, although to date EFP vessels have fished under a maximized retention protocol. We will be shifting fixed gear and bottom trawl vessels to an optimized retention protocol in 2016, but will not have the results from these trips before the proposed rule is scheduled to publish in June. However, implementing maximized retention in 2017 would not be ideal because it would require fixed gear vessels to switch back to maximized retention in 2017 after having fished under optimized retention in 2016. This may cause confusion for captains and crew about what rules to follow and affect performance. Optimized retention may actually be easier for captains and crew to follow because it is more similar to what they are used to doing with observers onboard. Either protocol would not be likely to affect data quality for discard estimates of non-IFQ species, because they are based on data collected by scientific observers. We are proposing to include optimized retention for fixed gear vessels in the proposed regulations and to evaluate these issues and available 2016 data later this summer before publishing the final rule.
9. *Logbooks* – We have created a federal discard logbook requirement for the EM program. Logbooks would be required to be submitted to PSMFC for data entry, even after video review shifts to third party service providers. This is to ensure that video review is done blind, without the video reviewer able to see what the captain reported on the logbook. We would make certain logbook information that is useful for the video review, such as the codend capacity and malfunction information, available to the providers for use during the video review.

10. *Recordkeeping* – We are proposing that EM program records, including video data, be retained by vessel owners and their service providers for three years from the date of landing. This is consistent with other groundfish recordkeeping requirements and would be less burdensome than the five years originally under discussion. We recognize that data storage is expensive for EM programs and that three years could still be a burden for EM vessels when video storage shifts to third party service providers in 2020. However, maintaining records for a certain period of time is an important aspect of NMFS regulatory programs. In addition, we will continue to work with Archipelago, PSMFC, and EFP participants on strategies to avoid collection and storage of unnecessary video data, such as by changing camera configurations and settings, to reduce storage costs.

Frequently Asked Questions

Council members and advisory body members have previously requested clarification from NMFS on certain aspects of policy related to the EM program, such as recordkeeping and confidentiality policies. We provide some responses below to common questions, based on our current understanding, to assist the Council in consideration of the program.

Who is required to maintain EM data?

Vessels are responsible for maintaining EM data as a condition of their permit, similar to obtaining and providing accommodations for an observer, storing logbooks, etc. NMFS, through PSMFC, is assuming responsibility for EM storage initially in the program while PSMFC does the video review. The requirement would transition to a third party review provider in 2020.

Is EM data a federal record?

EM data summary data, etc. becomes a federal record when it is submitted to NMFS or NMFS otherwise takes possession of it. This means that any EM data that NMFS obtains for audit or enforcement purposes, or while PSMFC is conducting the video review on NMFS's behalf, would be considered a federal record and must be stored by NMFS consistent with federal recordkeeping schedules. EM data that is submitted to a third party provider is not a federal record and, as such, is not subject to federal record retention requirements.

How long must EM data be kept?

NMFS may establish a recordkeeping requirement for vessel owners as a condition of their permits; this is independent of federal record retention requirements. We are proposing three years to be consistent with other IFQ program requirements and to provide sufficient time for agency review of the data, QA/QC, auditing, and initiation of any enforcement action.

As to EM data that NMFS possesses, NMFS does not have a record retention schedule for EM data at this time; thus, we believe we must maintain it indefinitely or until such time as we have developed a record retention schedule. We continue to develop a retention schedule for EM data, a multi-year process that will determine how long it must be kept.

Is EM data confidential? Who may access it?

EM data is confidential under the Magnuson-Stevens Act (MSA) under two provisions. First, EM data is considered to be confidential under Section 402(b)(1) of the MSA, which states that any information submitted to the Secretary shall be confidential and shall not be disclosed except under certain circumstances, including:

- “(A) to Federal employees and Council employees who are responsible for fishery management plan development, monitoring, or enforcement;*
- (B) to State or Marine Fisheries Commission employees as necessary to further the Department’s mission, subject to a confidentiality agreement that prohibits public disclosure of the identity of business of any person;*
- (C) to State employees who are responsible for fishery management plan enforcement, if the States employing those employees have entered into a fishery enforcement agreement with the Secretary and the agreement is in effect;*
- (D) when required by court order;*
- (E) when such information is used by State, Council, or Marine Fisheries Commission employees to verify catch under a limited access program, but only to the extent that such use is consistent with subparagraph (B);*
- (F) when the Secretary has obtained written authorization from the person submitting such information to release such information to persons for reasons not otherwise provided for in this subsection, and such release does not violate other requirements of this Act;*
- (G) when such information is required to be submitted to the Secretary for any determination under a limited access program; or*
- (H) in support of homeland and national security activities, including the Coast Guard’s homeland security missions as defined in section 888(a)(2) of the Homeland Security Act of 2002 (6 U.S.C. 468(a)(2)).”*

Second, EM is included under the definition of “observer information” in the MSA, which is protected under Section 402(b)(2). Section 402(b)(2) states that any observer information shall be confidential and shall not be disclosed, except under the exceptions listed above and a few additional exceptions:

- “(A) as authorized by a fishery management plan or regulations under the authority of the North Pacific Council to allow disclosure to the public of weekly summary bycatch information identified by vessel or for haul-specific bycatch information without vessel identification;*
- (B) when such information is necessary in proceedings to adjudicate observer certifications; or*
- (C) as authorized by any regulations issued under paragraph (3) allowing the collection of observer information, pursuant to a confidentiality agreement between the observers, observer employers, and the Secretary prohibiting disclosure of the information by the observers or observer employers, in order—*
 - (i) to allow the sharing of observer information among observers and between observers and observer employers as necessary to train and prepare observers for deployments on specific vessels; or*
 - (ii) to validate the accuracy of the observer information collected.”*

Therefore, electronic monitoring information may only be released under the specific exceptions listed in paragraphs 402(b)(1) and (b)(2) or if aggregated or summarized in a form that does not disclose the identity or business of the submitter. Note that enforcement action by a state enforcement partner and a court order could be acceptable uses of confidential EM data. Other than these exceptions, NMFS would be required to aggregate any data before releasing it to other requesters, same as with observer data. Since video imagery cannot be aggregated or summarized to obscure the submitter's identity and business, we believe EM video submitted to NMFS would not be able to be released, except under the exceptions listed in paragraphs 402(b)(1) and (b)(2).

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1. Revised General groundfish prohibitions (Section 660.12)

§660.12 General groundfish prohibitions.

In addition to the general prohibitions specified in §600.725 of this chapter, it is unlawful for any person to:

(e) * * *

(6) Fish when a vessel is required to carry an observer under subparts C through G of this part if:

(i) The vessel is inadequate for observer deployment as specified at §600.746 of this chapter;

(ii) The vessel does not maintain safe conditions for an observer as specified at §§660.140(h), 660.150(j), 660.160(g), or 660.604(p);

(iii) NMFS, the observer provider, or the observer determines the vessel is inadequate or unsafe pursuant to vessel responsibilities to maintain safe conditions as specified at §§660.140(h), 660.150(j), 660.160(g), or 660.604(p);

(7) * * *

(8) Fail to meet the vessel responsibilities and observer coverage requirements specified at §§660.140(h), 660.150(j), 660.160(g), 660.216, 660.316, 660.604(p).

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2. Revised Recordkeeping and reporting (Section 660.13)

§ 660.13 Recordkeeping and reporting.

* * * * *

(d) * * *

(5) *Declaration reports.*

(i) The operator of a vessel specified in paragraphs (d)(1), (d)(2), and (d)(3) of this section must provide a declaration report to NMFS OLE prior to leaving port on the first trip in which the vessel meets the requirement specified at §660.14(b) to have a VMS.

(ii) The vessel operator must send a new declaration report, consistent with paragraph (d)(5)(iv) before leaving port on a trip in which a gear type and monitoring type, if applicable, that is different from the gear type and monitoring type most recently declared for the vessel will be used. A declaration report will be valid until another declaration report revising the existing gear and monitoring declaration is received by NMFS OLE.

(iii) During the period of time that a vessel has a valid declaration report on file with NMFS OLE, it cannot fish with a gear and monitoring type other than a gear type and monitoring type declared by the vessel.

(iv) Declaration reports will include: The vessel name and/or identification number, gear type, and monitoring type where applicable, (as defined in paragraph (d)(5)(iv)(A) of this section). Upon receipt of a declaration report, NMFS will provide a confirmation code or receipt

to confirm that a valid declaration report was received for the vessel. Retention of the confirmation code or receipt to verify that a valid declaration report was filed and the declaration requirement was met is the responsibility of the vessel owner or operator. Vessels using nontrawl gear may declare more than one gear type with the exception of vessels participating in the Shorebased IFQ Program (i.e. gear switching), however, vessels using trawl gear may only declare one of the trawl gear types listed in paragraph (d)(5)(iv)(A) of this section on any trip and may not declare nontrawl gear on the same trip in which trawl gear is declared.

(A) One of the following gear types or sectors, and monitoring type where applicable, must be declared:

- (1) Limited entry fixed gear, not including shorebased IFQ,
- (2) Limited entry groundfish non-trawl, shorebased IFQ, observer,
- (3) Limited entry groundfish non-trawl, shorebased IFQ, electronic monitoring,
- (4) Limited entry midwater trawl, non-whiting shorebased IFQ,
- (5) Limited entry midwater trawl, Pacific whiting shorebased IFQ, observer,
- (6) Limited entry midwater trawl, Pacific whiting shorebased IFQ, electronic monitoring,
- (7) Limited entry mid water trawl, Pacific whiting catcher/processor sector,
- (8) Limited entry midwater trawl, Pacific whiting mothership sector (catcher vessel or mothership), observer,
- (9) Limited entry midwater trawl, Pacific whiting mothership sector (catcher vessel), electronic monitoring,
- (10) Limited entry bottom trawl, shorebased IFQ, not including demersal trawl,
- (11) Limited entry demersal trawl, shorebased IFQ,
- (12) Non-groundfish trawl gear for pink shrimp,
- (13) Non-groundfish trawl gear for ridgeback prawn,
- (14) Non-groundfish trawl gear for California halibut,
- (15) Non-groundfish trawl gear for sea cucumber,
- (16) Open access longline gear for groundfish,
- (17) Open access Pacific halibut longline gear,
- (18) Open access groundfish trap or pot gear,
- (19) Open access Dungeness crab trap or pot gear,
- (20) Open access prawn trap or pot gear,
- (21) Open access sheephead trap or pot gear,
- (22) Open access line gear for groundfish,
- (23) Open access HMS line gear,
- (24) Open access salmon troll gear,
- (25) Open access California Halibut line gear,
- (26) Open access Coastal Pelagic Species net gear,
- (27) Other gear, or
- (28) Tribal trawl.
- (29) Open access California gillnet complex gear.

* * * * *

3. Revised Appeals process for catch monitors, observers, and provider permits (Section 660.19)

§660.19 Appeals process for catch monitors, observers, and provider permits.

(a) *Allowed appeals.* This section describes the procedure for appealing IADs described at §§660.17(g), 660.18(d) and (f), 660.140(h), 660.150(j), 660.160(g), 660.603(b)(3)(i) for catch monitor decertification, observer decertification, provider permit expirations due to inactivity, and EM service provider permit denials. Any person whose interest is directly and adversely affected by an IAD may file a written appeal. For purposes of this section, such person will be referred to as the “applicant.”

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4. New subpart West Coast Groundfish Electronic Monitoring Program (Subpart J)

Subpart J, which is currently reserved, will be revised to include all the EM Program requirements under the title Subpart J –West Coast Groundfish Electronic Monitoring Program.

5. New section Applicability (Section 660.600)

§660.600 Applicability.

(a) *General.* This subpart contains requirements for vessels using EM in lieu of observers, as authorized under sections 660.140(h)(1)(i) (Shorebased IFQ Program) and 660.150(j)(1)(i) (MS Coop Program), and requirements for EM service providers. Vessel owners, operators, and managers are jointly and severally liable for a vessel’s compliance with EM requirements under this subpart. This subpart also contains requirements for a first receiver receiving catch from a trip monitored by EM (*see* §660.604(e)). The table below provides references to the sections that contain vessel owner, operator, first receiver, and service provider responsibilities. Certain requirements for vessel owners and operators and EM service providers will be different in 2020 and beyond.

West Coast Groundfish Fishery	Section
(1) Limited entry trawl fishery	
(i) Vessel owners	§660.604
(ii) Vessel operators	§660.604
(iii) First receivers	§660.604
(iv) Service providers	§660.603
(2) [Reserved]	

(b) *EM program guidelines*. NMFS will develop EM Program Guidelines, which will document best practices and other information that NMFS will use to evaluate proposed service and vessel monitoring plans submitted by EM service providers and vessel owners under this subpart. NMFS will develop the EM Program Guidelines in consultation with the Council and publish notice of their availability in the *Federal Register*. NMFS will maintain the EM Program Guidelines on its website and make them available to vessel owners and operators and EM service providers to assist in developing service plans and vessel monitoring plans that comply with the requirements of this subpart.

6. New section for EM program definitions (Section 660.601)

§660.601 Definitions.

Active sampling unit means the portion of the groundfish fleet in which an observer coverage plan is being applied.

Discard control point means the location on the vessel designated by a vessel operator where allowable discarding may occur.

Discard event means a single occurrence of discarding of fish or other species.

Electronic Monitoring or EM consists of the use of an electronic monitoring system (EMS) to passively monitor fishing operations through observing or tracking.

EM data processing means the review, interpretation, and analysis of EM data (i.e., video and sensor data).

EM Program means the Electronic Monitoring Program of the West Coast Region, National Marine Fisheries Service.

EM Program Manager means the Chief of the Permits and Monitoring Branch of the West Coast Region, National Marine Fisheries Service, or his designee.

EM Service Plan means the document that describes in detail how the applicant will provide EM services to the fishery to successfully achieve the purpose of the EM Program.

EM service provider means any person, including their employees or agents, that is granted a permit by NMFS to provide EM services as required under §660.603 and §660.604.

Electronic Monitoring System or EMS means a data collection tool that uses a software operating system connected to an assortment of electronic components, including video recorders, to create a collection of data on vessel activities.

EM technician means an employee of the EM service provider that provides support for EM systems and technical assistance to vessels and NMFS.

EM trip means any fishing trip for which electronic monitoring is the declared monitoring type.

Vessel Monitoring Plan (VMP) means the document that describes how fishing operations on the vessel will be conducted and how the EM system and associated equipment will be configured to meet the performance standards and purpose of the EM Program.

7. New section for EM program prohibitions (660.602)

§660.602 Prohibitions.

In addition to the general prohibitions specified in §600.725 of this chapter, it is unlawful for any person to:

(a) *Electronic monitoring program.*

(1) Make a false statement on an application for issuance, renewal, or changes to an EM Authorization or NMFS-accepted vessel monitoring plan.

(2) Fish for or land fish from a trip without electronic monitoring or observer coverage when a vessel is required to carry electronic monitoring or an observer under §§660.140(h) or 660.150(j).

(3) Fish for or land fish from a trip taken under electronic monitoring without a valid EM Authorization and NMFS-accepted vessel monitoring plan onboard, and a valid gear and monitoring declaration with NMFS OLE as required by §660.604(d)(1) and §660.604(o).

(4) Fail to comply with a NMFS-accepted VMP.

(5) Fail to notify the West Coast Groundfish Observer Program at least 48-hours prior to departing port of the vessel operator's intent to take a trip under EM, as required by §660.604(p).

(6) Fail to conduct a pre-departure test prior to departing port as required by §660.604(n)(2).

(7) Fish on an EM trip without a fully functional EM system, unless authorized by a NMFS-accepted VMP as required by §660.604(n)(3).

(8) Fail to make the EM system, associated equipment, logbooks and other records available for inspection upon request by NMFS OLE personnel or other authorized officers, as required by §§660.604(q) and 660.604(v).

(9) Discard species other than those allowed to be discarded as specified at §660.604(r).

(10) Fail to handle fish and other marine organisms in a manner that enables the EM system to record it.

(11) Fail to submit a complete and accurate federal discard logbook and hard drive for each EM trip as specified at §§660.604(u),

(12) Tamper with, disconnect, damage, destroy, alter, or in any way distort, render useless, inoperative, ineffective, or inaccurate any component of the EM system or associated equipment.

(13) Assault, resist, oppose, impede, intimidate, harass, sexually harass, bribe, or interfere with an EM service provider, EM field services staff, or EM data processing staff.

(14) Interfere with or bias the sampling procedure employed by EM data processing staff including either mechanically or manually sorting or discarding catch outside of camera view or inconsistent with the NMFS-accepted VMP.

(15) Fail to meet the vessel owner or operator responsibilities specified in section 660.604.

- (16) Fail to meet the first receiver responsibilities specified at §660.604(w).
- (17) Fail to meet the EM service provider responsibilities specified in section 660.603.
- (b) [Reserved]

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8. New section for EM provider permits and responsibilities (Section 660.603)

§660.603 Electronic monitoring provider permits and responsibilities.

(a) *General.* This section contains requirements for EM service providers providing EM services to vessels operating in the Shorebased IFQ Program (§660.140) or the MS Coop Program (§660.150) and using EM under this subpart. A person must obtain a permit and endorsement as provided under §660.603(b) in order to be an EM service provider. An EM service provider must:

- (1) Operate under a NMFS-accepted EM Service Plan (*see* §660.603(b)(3)(viii)).
- (2) Provide and manage EM systems, field services, and technical assistance as required under §660.603(i);
- (3) Provide technical and litigation support to NMFS or its agent (*see* §660.603(j)).
- (4) Provide technical support to fishing vessels 24-hours per day, seven days per week, and year-round as provided under §660.603(i)(4);
- (5) Beginning on January 1, 2020, or earlier if notified by NMFS, provide EM data processing, reporting, and record retention services to vessels using EM (*see* §660.603(k)).
- (6) Comply with data integrity and security requirements, including requirements pertaining to hard drives containing EM data, (*see* §660.603(l)).

(b) *Provider permits.* To be an EM service provider, a person must obtain an EM service provider permit and endorsement by submitting an application to the NMFS West Coast Region Fisheries Permit Office. A person may meet some requirements of this section through a partnership or subcontract with another entity, in which case the application for an EM service provider permit must include information about the partnership. An applicant may submit an application at any time. If a new EM service provider, or an existing EM service provider seeking to deploy a new EMS or software version, submits an application by August 1, NMFS will issue a new permit by January 1 of the following calendar year. Applications submitted after August 1 will be processed as soon as practicable. NMFS will only process complete applications. Additional endorsements to provide observer or catch monitor services may be obtained under §660.18. [NOTE: NMFS may need to develop alternate timelines for fall 2016 depending on when the final rule publishes.]

(1) *Contents of provider application.* To be considered for an EM service provider permit and endorsement, the service provider must submit a complete application that includes the following information. The same information must be included for any partners or subcontractors if the applicant intends to satisfy any of the EM service provider requirements through a partnership or contractual relationship with another entity.

- (i) Certify that the applicant meets the following eligibility criteria:

(A) The EM service provider and its employees do not have a conflict of interest as defined at §660.603(g), and,

(B) The EM service provider is willing and able to comply with all applicable requirements of this section and to operate under a NMFS-accepted EM Service Plan.

(ii) Applicant's contact information.

(iii) Legal name of applicant organization. If the applicant organization is United States business entity, include the state registration number.

(iv) Description of the management, organizational structure, and ownership structure of the applicant's business, including identification by name and general function of all controlling management interests in the company, including but not limited to owners, board members, officers, authorized agents, and employees. List all office locations and their business mailing address, business phone, fax number, and email addresses. If the applicant is a corporation, the articles of incorporation must be provided. If the applicant is a partnership, the partnership agreement must be provided.

(v) A narrative statement describing prior relevant experience in providing EM services, technical support, or fishery data analysis services, including recruiting, hiring, training, deploying, and managing of individuals in marine work environments and of individuals working with fishery data, in the groundfish fishery or other fisheries of similar scale.

(vi) A statement signed under penalty of perjury by an authorized agent of the applicant about each owner, or owners, board members, and officers if a corporation, authorized agents, and employees, regarding:

(A) Conflict of interest as described in §660.603(g),

(B) Criminal convictions,

(C) Federal contracts they have had and the performance rating they received on each contract, and

(D) Any previous history of decertification or permit sanction action while working as an observer, catch monitor, observer provider, catch monitor provider, or electronic monitoring provider.

(vii) *EM Service Plan*. An EM Service Plan that describes in detail how the applicant will provide EM services to the fishery sufficient to provide NMFS with the best available information to determine individual accountability for catch, including discards, of IFQ species and compliance with requirements of the Shorebased IFQ Program (§660.140(h)(1)(i)) and MS Coop Program (§660.150(j)(1)(i)(B)). NMFS will develop EM Program Guidelines containing best practices and templates and make them available on NMFS's website to assist EM service providers in developing EM Service Plans (*see* §660.600(b)). The EM Service Plan must include descriptions of the following (using pictures and diagrams where appropriate):

(A) Contact information for a primary point of contact for program operations inseason;

(B) A plan for provision of services including communications, service locations, response timelines, and procedures for services, repairs, technical support, and other program services;

(C) Procedures for hiring and training of competent program staff to carryout EM field services and data services, including procedures to maintain the skills of EM data processing staff in:

- (1) Use of data processing software;
- (2) Species identification;
- (3) Fate determination and metadata reporting requirements;
- (4) Data processing procedures;
- (5) Data tracking; and,
- (6) Reporting and data upload procedures.

(D) Procedures for tracking hard drives throughout their use cycle, including procedures to ensure the integrity and security of hard drives in transit, and for removing confidential data from hard drives before returning them to the field;

(E) Procedures for data processing, including tracking of EM datasets throughout their processing cycle and documenting any access and modifications;

(F) Procedures for correction and resubmission of EM datasets that NMFS has determined are not sufficient, as described at §660.603(k)(6), and to ensure that future datasets are sufficient for use by NMFS.

(G) Policies on data access, handling, and release to maintain the confidentiality of the EM Program data;

(H) Procedures for archiving of EM datasets and raw video, sensor and GPS data, etc., after reports have been submitted to NMFS;

(I) Identifying characteristics of the EMS to be deployed and the video review software to be used in the fishery, including but not limited to: manufacturer, brand name, model name, model number, software version and date, firmware version number and date, hardware version number and date, monitor/terminal number and date, pressure sensor model number and date, drum rotation sensor model number and date, and GPS model number and date.

(J) EM system and software specifications, including a narrative statement describing how the EM system and associated equipment meets the performance standards at §660.604(l).

(K) EM video review software specifications, including a narrative statement describing how the software is sufficient to provide NMFS with the best available information to determine individual accountability for catch, including discards, of IFQ species and compliance with requirements of the Shorebased IFQ Program (§660.140(h)(1)(i)) and MS Coop Program (§660.150(j)(1)(i)(B)).

(viii) Provide NMFS the following, if requested:

(A) Two EM system units loaded with software for a minimum of 90 calendar days for testing and evaluation.

(B) Thorough documentation for the EM system, including: user manuals, any necessary interfacing software, performance specifications, technical support information, and tamperproof or tamper evident features.

(C) The results of at-sea trials of the EM system.

(D) Two copies of video review and analysis software for a minimum of 90 calendar days for testing and evaluation.

(E) Thorough documentation for the video review and analysis software, including: user manuals, performance specifications, and technical support information.

(F) Descriptions of database models and analysis procedures for program and fishery data to produce required reports.

(2) *Application evaluation.* NMFS may request additional information or revisions from the applicant until NMFS is satisfied that the application is complete. Complete applications will be forwarded to the EM Program for review and evaluation by the EM provider permit review board. If the applicant is an entity, the review board also will evaluate the application criteria for each owner, board member, officer, authorized agent, and employee. NMFS will evaluate the application based on the EM Program Guidelines (*see* §660.600(b)) and the following criteria:

- (i) The applicant's relevant experience and qualifications;
- (ii) Review of any conflict of interest as described in §660.603(c)(3);
- (iii) Review of any criminal convictions;
- (iv) Review of the proposed EM Service Plan, including evaluation of EM equipment and software;
- (v) Satisfactory performance ratings on any federal contracts held by the applicant;
- (vi) Review of any history of decertification or permit sanction as an observer, catch monitor, observer provider, catch monitor provider, or EM service provider; and,
- (vii) Review of any performance history as an EM service provider.

(3) *Agency determination on an application.* Based on a complete application, if NMFS determines that the applicant has met the requirements of this section, NMFS will issue an initial administrative determination (IAD). If the application is approved, the IAD will serve as the EM service provider's permit and endorsement. If the application is denied, the IAD will provide an explanation of the denial in writing. The applicant may appeal NMFS's determination following the process at §660.19.

(4) *Effective dates.* The provider permit is valid from the effective date until December 31 of that year or until NMFS notifies the EM service provider that its permit is invalid, whichever comes first. NMFS may invalidate an EM service provider permit if NMFS determines that the EM service provider no longer meets the eligibility criteria defined at paragraph (b)(1)(i). NMFS will first notify the EM service provider of the deficiencies in writing and the EM service provider must correct the deficiencies following the instructions provided. If the deficiencies are not resolved upon review of the first trip following the notification, NMFS will notify the EM service provider in writing that the provider permit is invalid and that the EM service provider is no longer eligible to provide EM services to the fishery for the remainder of that calendar year. The EM service provider may reapply for an EM service provider permit and endorsement for the following calendar year.

(c) *Change of provider permit ownership and transfer restrictions.* If an EM service provider changes ownership during the term of an EM service provider permit, the new owner must apply for a new provider permit.

(d) *Provider permit sanctions.* Procedures governing sanctions of permits are found at subpart D of 15 CFR part 904.

(e) *Renewing a provider permit.* A provider must reapply annually for an EM service provider permit and endorsement following the application process at paragraph (b). NMFS will mail renewal applications to existing EM service providers each year on or about June 15. If EM service providers submit applications by the below deadlines, NMFS will issue new EM service provider permits and endorsements by the specified dates, otherwise as soon as practicable.

(1) *New EMS or software versions.* If an EM service provider seeking to deploy a new EMS or software version submits a complete renewal application by August 1, and the application meets the requirements under this section, NMFS will issue a new EM service provider permit and endorsement by January 1 of the following calendar year.

(2) *Existing EMS or software versions.* If an EM service provider deploying EMS or software versions already part of an accepted plan, submits a complete renewal application by October 1, and the application meets the requirements under this section, NMFS will issue a new EM service provider permit and endorsement by January 1 of the following calendar year.

(f) *Fees.* NMFS may charge a fee to cover administrative expenses related to issuance of permits including initial issuance, renewal, replacement, and appeals.

(g) *Limitations on conflict of interest for providers and employees.*

(1) EM service providers and their employees must not have a direct financial interest, other than the provision of observer, catch monitor, EM, or other biological sampling services, in any federal or state managed fisheries, including but not limited to:

(i) Any ownership, mortgage holder, or other secured interest in a vessel, first receiver, shorebased or floating stationary processor facility involved in the catching, taking, harvesting or processing of fish;

(ii) Any business involved with selling supplies or services to any vessel, first receiver, shorebased or floating stationary processing facility; or

(iii) Any business involved with purchasing raw or processed products from any vessel, first receiver, shorebased or floating stationary processing facilities.

(2) EM service providers and their employees must not solicit or accept, directly or indirectly, any gratuity, gift, favor, entertainment, loan, employment, or anything of monetary value from any person who conducts fishing or fish processing activities that are regulated by NMFS, or who has interests that may be substantially affected by the performance or nonperformance of the official duties of the provider.

(3) The EM service provider may not employ any person to handle hard drives or EM data from a vessel by which the person was previously employed in the last two years.

(4) Provisions of contracts or agreements for remuneration of EM services under this section do not constitute a conflict of interest.

(h) *Insurance.* The EM service provider must maintain adequate insurance (copies of which shall be provided to the vessel owner, operator, or vessel manager, when requested) to cover injury, liability, and accidental death to cover vessel owner, and the EM service provider and its employees, including the following:

(1) States Worker's Compensation as required.

(2) Commercial General Liability.

(i) *Field and technical support services.* The EM service provider must provide and manage EM systems, installation, maintenance and technical support, as described below, according to a NMFS-accepted EM Service Plan and such that the EM Program effectively achieves its purpose as defined at §660.604(b).

(1) At the time of installation, the EM service provider must:

(i) Install an EM system that meets the performance standards under §660.604(1);

(ii) Ensure that the EM system is set up, wires run, system powered, and tested with the vessel in operation;

(iii) Brief the vessel operator on system operation, maintenance, and procedures to follow for technical support or field service;

(iv) Provide necessary information for the vessel operator to complete the VMP, such as images and diagrams of camera views and vessel layout, specific information about system settings, and designated discard control points; and,

(v) Complete an EM System Certification Form for the vessel owner.

(2) The EM service provider must communicate with vessel operators and NMFS to coordinate service needs, resolve specific program issues, and provide feedback on program operations.

(3) The EM service provider must provide maintenance and support services, including maintaining an EM equipment inventory, such that all deployed EM systems perform according to the performance standards at §660.604(l) and that field service events are scheduled and carried out with minimal delays or disruptions to fishing activities.

(4) The EM service provider must provide technical assistance to vessels, upon request, in EM system operation, the diagnosis of the cause of malfunctions, and assistance in resolving any malfunctions. Technical support must be available by email. Technical support must be available by phone 24-hours per day, seven days per week, and year-round.

(5) The EM service provider must submit to NMFS reports of requests for technical assistance from vessels, including when the call or visit was made, the nature of the issue, and how it was resolved.

(j) *Program and technical support for NMFS.* The EM service provider must provide the following to NMFS or its agent, upon request, free of charge unless otherwise specified by contract.

(1) Assistance in EM system operation, diagnosing and resolving technical issues, and recovering corrupted or lost data.

(2) Support for inquiries related to data summaries, analyses, reports, and operational issues with vessel representatives

(3) Litigation support to NMFS if the EM system/data is being admitted as evidence in a court of law. All technical aspects of a NMFS-approved EM system are subject to being admitted as evidence in a court of law, if needed. The reliability of all technologies utilized in the EM system may be analyzed in court for, inter alia, testing procedures, error rates, peer review, technical processes and general industry acceptance. The EM service provider must, as a requirement of the provider's permit, provide technical and expert support for litigation to substantiate the EM system capabilities or other relevant information to investigate or establish potential violations of this chapter or other applicable law, as needed, including:

(i) If the technologies have previously been subject to such scrutiny in a court of law, the EM service provider must provide NMFS with a brief summary of the litigation and any court findings on the reliability of the technology.

(ii) Sign a non-disclosure agreement limiting the release of certain information that might compromise the effectiveness of the EM system operations.

(4) Supply all software necessary for accessing, viewing, and interpreting the data generated by the EM system, including maintenance releases to correct errors in the software or enhance the functionality of the software.

(5) Notify NMFS within 24 hours after the EM service provider becomes aware of the following:

(i) Any information regarding possible harassment of EM provider staff;

(ii) Any information regarding possible EM system tampering;

(iii) Any information regarding any action prohibited under §§660.12(f) or 660.602(h); and,

(iv) Any information, allegations or reports regarding EM service provider staff conflicts of interest.

(6) Notify NMFS of any change of management or contact information or a change to insurance coverage.

(7) If requested, provide NMFS with the following:

(i) A copy of any contract between the service provider and entities requiring EM services;

(ii) Proof of adequate insurance as defined in paragraph (h);

(iii) Copies of any information developed and used by the EM service provider and distributed to vessels, including, but not limited to, informational pamphlets, payment notifications, and description of EM service provider duties; and,

(iv) Access to and submit to NMFS raw EM imagery, sensor, GPS, or other data, processed data, copies of EM data, meta data, and other associated records.

(k) *Data services.* Beginning on January 1, 2020, or earlier if notified by NMFS in the *Federal Register* with six months prior notice, the EM service provider must provide and manage data processing, reporting, and record retention services, as described below, according to a NMFS-approved EM Service Plan and such that the EM Program effectively achieves its purpose as defined at §660.604(b).

(1) The EM service provider must process sensor and image datasets, interpret, and analyze EM data sets from EM trips. The EM provider must review EM data according to a prescribed coverage level or sampling scheme, as specified by NMFS, and determine an estimate of discards for each trip using standardized estimation methods specified by NMFS. NMFS will maintain manuals for EM data processing protocols on its website.

(2) The EM service provider must ensure that data processing staff are fully trained in:

(i) Use of data processing software;

(ii) Species identification;

(iii) Fate determination and metadata reporting requirements;

(iv) Data processing procedures;

(v) Data tracking; and,

(vi) Reporting and data upload procedures.

(3) The EM service provider must track hard drives and EM datasets throughout their cycles, including documenting any access and modifications. EM hard drives must be erased to remove confidential data before returning them to the field.

(4) The EM service provider must communicate with vessel operators and NMFS to coordinate data service needs, resolve specific program issues, and provide feedback on program operations. The EM service provider must provide feedback to vessel representatives, field services staff, and NMFS regarding:

(i) Adjustments to system settings;

(ii) Changes to camera positions;

(iii) Advice to vessel personnel on duty of care responsibilities;

(iv) Advice to vessel personnel on catch handling practices; and,

(v) Any other information that would improve the quality and effectiveness of data collection on the vessel.

(5) The EM service provider must submit to NMFS processed EM datasets and summaries, including discard estimates, fishing activity information, and meta data (e.g., image quality, reviewer name), and incident reports of compliance issues. EM datasets and reports must be sufficient to provide NMFS with the best available information to determine individual accountability for catch, including discards, of IFQ species and compliance with requirements of

the Shorebased IFQ Program (§660.140(h)(1)(i)) and MS Coop Program (§660.150(j)(1)(i)(B)). If NMFS determines that the information is not sufficient, NMFS may require the EM service provider to correct and resubmit the reports.

(6) *Retention of records.* Following an EM trip, the EM service provider must maintain all EM data and other records specified in this section, or used in the preparation of records or reports specified in this section or corrections to these reports, for a period of not less than three years after the date of landing for that trip, for a period not less than three years after the date of landing. EM records must be stored such that the integrity and security of the records is maintained for the duration of the retention period. The EM service provider must produce EM records upon request by the EM Program Manager or an authorized officer.

(1) *Data integrity and security.* The EM service provider must ensure the integrity and security of EM data and other records specified in this section.

(1) The EM service provider must not handle or transport hard drives containing EM data except to carry out EM services required by this section in accordance with a NMFS-accepted EM Service Plan.

(2) The EM service provider must not write to or modify any EM hard drive that contains raw EM data before it has been copied and catalogued.

(3) Consistent with NOAA data confidentiality guidance, an EM service provider and its employees must not disclose data and observations made on board a vessel to any person except the owner or operator of the observed vessel, an authorized state or an OLE agent or officer, NMFS or its designated agent.

9. New section for vessel and first receiver responsibilities (Section 660.604)

§660.604 Vessel and first receiver responsibilities.

(a) *General.* This section lays out the requirements for catcher vessels to obtain an exemption to use electronic monitoring (EM) in place of 100-percent observer coverage required by the Shorebased IFQ Program (§660.140(h)(1)(i)) and MS Coop Program (§660.150(j)(1)(i)(B)). Requirements are also described for first receivers receiving landings from EM trips.

(b) *Vessel Owner Responsibilities.* To use EM under this section, vessel owners must:

(1) Obtain an EM Authorization from the NMFS West Coast Region Fisheries Permit Office (*see* §660.604(e));

(2) Install an EM system using a NMFS-permitted EM service provider that meets performance standards under §660.604(k);

(3) Have a signed EM system certification form (*see* §660.604(e)(3)(i));

(4) Have a NMFS-accepted vessel monitoring plan (*see* §660.604(e)(3)(ii));

(5) Ensure that the vessel operator and crew attend a mandatory EM orientation session provided by the NMFS West Coast Region EM Program (NMFS may waive this requirement on a case-by-case basis, such as when the vessel operator and crew have prior EM experience);

(6) Maintain logbooks and other records for three years and provide them to NMFS or authorized officers for inspection (*see* §660.604(u)).

(7) Beginning January 1, 2020, or earlier if notified by NMFS, obtain EM data processing and recordkeeping services from a NMFS-permitted EM service provider (*see* §660.604(l)).

(c) *Vessel Operator Responsibilities*. To use EM under this section, vessel operators must:

(1) Maintain a valid EM Authorization and NMFS-accepted vessel monitoring plan onboard the vessel at all times that the vessel is fishing on an EM trip or when fish harvested during an EM trip are onboard the vessel;

(2) Ensure that the EM system is installed, operated, and maintained consistent with performance standards (*see* §660.604(m));

(3) Comply with a NMFS-accepted vessel monitoring plan (*see* §660.604(e)(3)(ii));

(4) Make declaration reports to OLE prior to leaving port (*see* §660.604(n));

(6) Provide advance notice to the Observer Program at least 48 hours prior to departing port (*see* §660.604(o));

(7) Comply with observer requirements, if NMFS notifies the vessel owner, operator, or manager that the vessel is required to carry an observer (*see* §660.604(o));

(8) Ensure retention and handling of all catch as provided under §§660.604(q) and 660.604(s);

(10) Comply with recordkeeping, reporting and inspection requirements (*see* §§660.604(t) and 660.604(u)); and,

(11) Submit required logbooks and hard drives (*see* §660.604(t)).

(d) *First receiver responsibilities*. First receivers receiving catch from trips taken under EM must follow special disposition and sorting requirements for prohibited and protected species (*see* §660.604(v)).

(e) *Electronic Monitoring Authorization*. To obtain an EM Authorization, a vessel owner must submit an initial application to the NMFS West Coast Region Fisheries Permit Office, then a final application that includes an EM system certification and a vessel monitoring plan (VMP). NMFS will only review complete applications. A vessel owner may submit an application at any time.

(1) *Initial application*. To be considered for an EM Authorization, the vessel owner must submit a complete initial application that includes the following:

(i) A completed application form provided by NMFS, signed and dated by an authorized representative of the vessel.

(ii) Meet the following eligibility criteria:

(A) The applicant owns the vessel proposed to be used;

(B) The vessel has a valid Pacific Coast Groundfish limited entry, trawl-endorsed permit registered to it;

(C) If participating in the mothership sector, the vessel has a valid MS/CV endorsement;

(D) The vessel is participating in the Pacific whiting IFQ fishery, mothership sector, or the Shorebased IFQ sector using groundfish non-trawl gear;

(E) The vessel is able to accommodate the EM system, including providing sufficient uninterrupted electrical power, suitable camera mounts, adequate lighting, and fittings for hydraulic lines to enable connection of a pressure transducer;

(F) The vessel owner and operator are willing and able to comply with all applicable requirements of this section and to operate under a NMFS-accepted vessel monitoring plan.

(2) *Review of initial application.* Based on a complete initial application, if NMFS determines that the applicant meets the eligibility criteria in paragraph (e)(1)(ii) of this section, NMFS will notify the applicant in writing that the initial application has been accepted for further consideration. An applicant who receives such notice may install an EM system on his or her vessel and proceed with submission of a final application as provided under paragraph (e)(3). If an initial application has not been accepted, NMFS will provide the applicant an explanation of the denial in writing. The applicant may appeal NMFS's determination following the process at §660.25(g).

(3) *Final application.* A final application must be complete and must include:

(i) *EM system certification.* A certification form, provided by NMFS, signed by a representative of a NMFS-permitted EM service provider that attests that an EM system and associated equipment that meets the performance standards at paragraph (k) was installed on the vessel, that the system was tested while the vessel was underway, and that the vessel operator was briefed on the EM system operation and maintenance. NMFS will maintain a list of permitted EM service providers on its website.

(ii) *Vessel monitoring plan.* A complete vessel monitoring plan (VMP) for the vessel that accurately describes how fishing operations on the vessel will be conducted and how the EM system and associated equipment will be configured to meet the performance standards at paragraph (l). NMFS will develop EM Program Guidelines containing best practices and templates and make them available on NMFS's website to assist vessel owners in developing VMPs (*see* §660.600(b)). An EM service provider may prepare and submit a VMP on behalf of the applicant. The VMP must include descriptions of the following (using pictures and diagrams where appropriate):

(A) General vessel information including the vessel name, hull number, gear type(s), home port, captain name, and target fishery or sector;

(B) The coordinates of the home port box, if a geo-referenced port box will be used to trigger data collection;

(C) A diagram of the vessel layout with measurements of the deck and denoting the location of any designated discard control points;

(D) The number and location of cameras and with images of corresponding views;

(E) The location of lighting, control center, GPS, sensors, monitor, and other EM equipment;

(F) Frame rates, image resolution, frequency of data logging, sensor trigger threshold values, and other EM system specifications;

(G) The location and procedures for any catch handling, including designated discard control points within camera view, procedures for sorting and measuring discards, the number of crew sorting catch, and what steps will be taken to ensure that all catch remains in camera view;

(H) The measurements of all bins, baskets and compartments that will be used to calculate volumetric estimates of weight;

(I) The detailed steps that will be taken to minimize the potential for EM system malfunctions and the steps will be taken, when malfunctions occur, to ensure the adequate monitoring of catch;

(J) The name, address, phone number, and email address of a primary point of contact for vessel operations;

(K) The name, address, and phone number of the vessel's EM service provider, and contact information for a primary point of contact at the EM service provider;

(L) The name, address, phone number, and signature of the applicant, and the date of the application; and,

(M) Any other information required by the EM Program Manager.

(iii) Any updates to information submitted in the initial application, including updates to proposed, self-enforcing agreements, if applicable (*see* paragraph (e)(6)).

(4) *Review of final application.* NMFS may request additional information or revisions from the applicant until NMFS is satisfied that the application is complete. Based on a complete application, if NMFS determines that the applicant has met the requirements of this section, NMFS will issue an IAD and an EM Authorization. If the application is denied, the IAD will provide an explanation of the denial in writing. The applicant may appeal NMFS's determination following the process at §660.25(g). NMFS will evaluate an application based on the EM Program Guidelines (*see* §660.600(b)) and the following criteria, at a minimum:

(i) Review of the vessel owner's and operator's eligibility based on the eligibility criteria at paragraph (e)(1)(ii);

(ii) Review of the proposed vessel monitoring plan; and,

(iii) Review of the proposed self-enforcing agreement, if applicable.

(5) *Self-enforcing agreement.* In the future, through a proposed and final rulemaking, NMFS may allow for and provide requirements related to the use of voluntary self-enforcing agreements. This agreement would allow a group of eligible vessels to encourage compliance with the requirements of this section through private, contractual arrangements. If such arrangements are used, participating vessel owners must submit the proposed agreement to NMFS for review and acceptance as part of the application process as provided under paragraphs (f)(1) and (3). The existence of a self-enforcing agreement among EM vessels does not foreclose the possibility of independent enforcement action by NMFS OLE or authorized officers.

(f) *Changes to a NMFS-accepted VMP.* A vessel owner may make changes to a NMFS-accepted VMP by submitting a revised plan or plan addendum to NMFS in writing. NMFS will review and accept the change if it meets all the requirements of this section. A vessel monitoring plan addendum must contain:

(1) The date and the name and signature of the vessel owner;

(2) Address, telephone number, fax number and email address (if available) of the person submitting the addendum;

(3) A complete description of the proposed VMP change.

(g) *Change in ownership of a vessel.* If a vessel changed ownership, the new owner must apply for a new EM Authorization.

(h) *Effective dates.* The EM Authorization is valid from the effective date until December 31 of that year or until NMFS notifies the vessel owner that its EM Authorization is invalid, whichever comes first. NMFS may invalidate an EM Authorization if NMFS determines that the vessel, vessel owner, and/or operator no longer meets the eligibility criteria specified at paragraph (e)(1)(ii). NMFS would first notify the vessel owner of the deficiencies in writing and the vessel owner must correct the deficiencies following the instructions provided. If the deficiencies are not resolved upon review of the first trip following the notification, NMFS will notify the vessel owner in writing that the EM Authorization is invalid and that the vessel is no longer exempt from observer coverage at §§660.140(h)(1)(i) and 660.150(j)(1)(i)(B) for that

authorization period. The holder may reapply for an EM Authorization for the following authorization period.

(i) *Renewing an EM Authorization.* A vessel owner must reapply annually for an EM Authorization following the application process described at paragraph (f). NMFS will mail EM Authorization applications to existing EM Authorization holders each year on or about: September 1 for non-trawl vessels and January 1 for Pacific whiting IFQ and MS/CV vessels. If vessel owners submit applications by the below deadlines, NMFS will issue new EM Authorizations by the specified dates, otherwise as soon as practicable.

(1) *Non-trawl vessels.* If a non-trawl vessel owner submits a complete renewal application by October 15, and the application meets the requirements under this section, NMFS will issue a new Authorization by January 1 of the following calendar year.

(2) *Pacific whiting IFQ and MS/CV vessels.* If a Pacific whiting IFQ or MS/CV vessel owner submits a complete renewal application by February 15, and the application meets the requirements under this section, NMFS will issue a new Authorization by May 15 of that calendar year.

(j) *Fees.* NMFS may charge a fee for administrative costs associated with processing the applications.

(k) *EM System Performance Standards.* The specifications (e.g., image resolution, frame rate, user interface) and configuration of an EM system and associated equipment (e.g., number and placement of cameras, lighting) used to meet the requirements of this section must be sufficient to:

(1) Allow easy and complete viewing, identification, and quantification, of catch items discarded at sea, including during low light conditions;

(2) Continuously record vessel location (latitude/longitude coordinates), velocity, course, and sensor data (i.e, hydraulic and winch activity);

(3) Allow the identification of the time, date, and location of a haul/set or discard event;

(4) Record and store image data from all hauls/sets and the duration that fish are onboard the vessel until offloading begins;

(5) Continuously record and store raw sensor data (i.e., GPS and gear sensors) for the entire fishing trip;

(6) Prevent radio frequency interference (RFI) with vessel monitoring systems (VMS) and other equipment;

(7) Allow the vessel operator to test and monitor the functionality of the EM system prior to and during the fishing trip to ensure it is fully functional;

(8) Prevent tampering or, if tampering does occur, show evidence of tampering; and,

(9) Provide image and sensor data in a format that enables their integration for analysis.

(l) *EM data services.* Beginning January 1, 2020, or earlier if notified by NMFS in the *Federal Register* with six months prior notice, a vessel owner with a valid EM Authorization must obtain EM data processing, reporting, and record retention services from a NMFS-permitted EM service provider, as described at §660.603(k). If the vessel owner changes EM service providers, the vessel owner must ensure the continuity of EM data retention for the entire duration of the required retention period as specified §660.603(k)(6). NMFS will maintain a list of permitted EM service providers on its website.

(m) *EM system operation and maintenance.* The EM system must be recording imagery and sensor data at all times that fish harvested during an EM trip are onboard the vessel until offloading begins. For the purposes of this section, a fully functional EM system is defined as an

EM system and associated equipment that meets the performance standards listed in paragraph (k).

(1) *Duties of care.* The operator of a vessel with a valid EM Authorization must maintain the EM system in good working order, including:

- (i) Ensuring the EM system is powered continuously during the fishing trip;
- (ii) Ensuring the system is functioning for the entire fishing trip and that camera views are unobstructed and clear in quality, such that the performance standards listed in paragraph (l) are met; and,
- (iii) Ensuring EM system components are not tampered with, disabled, destroyed, operated or maintained improperly.

(2) *Pre-departure test.* Prior to departing port, the operator of a vessel with a valid EM Authorization must turn the EM system on and conduct a system function test following the instructions from the EM service provider. The vessel operator must verify that the EM system has adequate memory to record the entire trip and that the vessel is carrying one or more spare hard drives with sufficient capacity to record the entire trip.

(3) *EM system malfunctions.* The operator of a vessel with a valid EM Authorization is prohibited from fishing on an EM trip without a fully functional EM system, unless an alternate arrangement has been specified in the NMFS-accepted VMP. In the event of an EM system malfunction, the vessel operator may voluntarily obtain observer coverage and revise the vessel's declaration following the process at §660.13(d)(5), in which case the vessel operator is no longer exempt from the observer requirements at §§660.140(h) and 660.150(j).

(n) *Declaration reports.* The operator of a vessel with a valid EM Authorization must make a declaration report to NMFS OLE prior to leaving port following the process described at §660.13(d)(5). A declaration report will be valid until another declaration report revising the existing gear or monitoring declaration is received by NMFS OLE, with the following limitations.

(1) *Non-trawl vessels.* A vessel operator declaring limited entry groundfish non-trawl, shorebased IFQ is prohibited from revising an existing monitoring declaration once a monitoring declaration has been made in a given calendar year. Revisions may be made if the EM system has malfunctioned and the vessel operator has chosen to carry an observer, as allowed under paragraph (n)(3), or if the EM system has subsequently been repaired, or if the vessel's EM Authorization expires or becomes invalid.

(2) *Pacific whiting IFQ and MS/CV vessels.* A vessel operator declaring a limited entry midwater trawl, Pacific whiting shorebased IFQ trip or limited entry midwater trawl, Pacific whiting mothership sector (catcher vessel or mothership) trip may only revise the existing monitoring declaration twice during the same calendar year. NMFS may waive this limitation with prior notice if it is determined to be unnecessary for purposes of planning observer deployments. Additional revisions may be made if the EM system has malfunctioned and the vessel operator has chosen to carry an observer, as allowed under paragraph (m)(3), or subsequently, the EM system has been repaired, and upon expiration or invalidation of the vessel's EM Authorization.

(o) *Observer requirements.* The operator of a vessel with a valid EM Authorization must provide advanced notice to NMFS, at least 48 hours prior to departing port, of the vessel operator's intent to take a trip under EM, including: vessel name, permit number; contact name and telephone number for coordination of observer deployment; date, time, and port of departure; and the vessel's trip plan, including area to be fished and gear type to be used. NMFS

may waive this requirement for vessels declared into the Pacific whiting IFQ fishery or mothership sector with prior notice. If NMFS notifies the vessel owner, operator, or manager of any requirement to carry an observer, the vessel may not be used to fish for groundfish without carrying an observer. The vessel operator must comply with the following requirements on a trip that the vessel owner, operator, or manager has been notified is required to carry an observer.

(1) *Notice of departure basic rule.* At least 24 hours (but not more than 36 hours) before departing on a fishing trip, a vessel operator that has been notified by NMFS that his vessel is required to carry an observer, or that is operating in an active sampling unit, must notify NMFS (or its designated agent) of the vessel's intended time of departure. Notice will be given in a form to be specified by NMFS.

(2) *Optional notice—weather delays.* A vessel operator that anticipates a delayed departure due to weather or sea conditions may advise NMFS of the anticipated delay when providing the basic notice described in paragraph (b) of this section. If departure is delayed beyond 36 hours from the time the original notice is given, the vessel operator must provide an additional notice of departure not less than 4 hours prior to departure, in order to enable NMFS to place an observer.

(3) *Optional notice—back-to-back fishing trips.* A vessel operator that intends to make back-to-back fishing trips (i.e., trips with less than 24 hours between offloading from one trip and beginning another), may provide a notice of departure as described in paragraph (o)(1) for both trips, prior to making the first trip. A vessel operator that has given such notice is not required to give additional notice of the second trip.

(4) *Cease fishing report.* Within 24 hours of ceasing the taking and retaining of groundfish, vessel owners, operators, or managers must notify NMFS or its designated agent that fishing has ceased. This requirement applies to any vessel that is required to carry an observer, or that is operating in a segment of the fleet that NMFS has identified as an active sampling unit.

(5) *Waiver.* The West Coast Regional Administrator may provide written notification to the vessel owner stating that a determination has been made to temporarily waive coverage requirements because of circumstances that are deemed to be beyond the vessel's control.

(6) *Accommodations and food.* The vessel operator must provide accommodations and food that are equivalent to those provided to the crew.

(7) *Safe conditions.* The vessel operator must maintain safe conditions on the vessel for the protection of observer(s) including adherence to all USCG and other applicable rules, regulations, or statutes pertaining to safe operation of the vessel, and provisions at §§600.725 and 600.746 of this chapter.

(8) *Observer communications.* The vessel operator must facilitate observer communications by:

(i) Allowing observer(s) to use the vessel's communication equipment and personnel, on request, for the entry, transmission, and receipt of work related messages, at no cost to the observer(s) or the U.S. or designated agent;

(ii) Ensuring that the vessel's communications equipment, used by observers to enter and transmit data, is fully functional and operational.

(9) *Vessel position.* The vessel operator must allow observer(s) access to, and the use of, the vessel's navigation equipment and personnel, on request, to determine the vessel's position.

(10) *Access.* The vessel operator must allow observer(s) free and unobstructed access to the vessel's bridge, trawl or working decks, holding bins, processing areas, freezer spaces, weight

scales, cargo holds, and any other space that may be used to hold, process, weigh, or store fish or fish products at any time.

(11) *Prior notification.* The vessel operator must notify observer(s) at least 15 minutes before fish are brought on board, or fish and fish products are transferred from the vessel, to allow sampling the catch or observing the transfer, unless the observer specifically requests not to be notified.

(12) *Records.* The vessel operator must allow observer(s) to inspect and copy any state or federal logbook maintained voluntarily or as required by regulation.

(13) *Assistance.* The vessel operator must provide all other reasonable assistance to enable observer(s) to carry out their duties, including, but not limited to:

- (i) Measuring decks, codends, and holding bins;
- (ii) Providing the observer(s) with a safe work area;
- (iii) Collecting bycatch when requested by the observer(s);
- (iv) Collecting and carrying baskets of fish when requested by the observer(s);
- (v) Allowing the observer(s) to collect biological data and samples; and,
- (vi) Providing adequate space for storage of biological samples.

(14) *Sampling station.* The vessel operator must provide an observer sampling station that meets the following requirements so that the observer can carry out required duties.

(i) The observer sampling station must be available to the observer at all times.

(ii) The observer sampling station must be located within 4 m of the location from which the observer samples unsorted catch. Unobstructed passage must be provided between the observer sampling station and the location where the observer collects sample catch.

(p) *Inspection.* The operator of a vessel with a valid EM Authorization must make the EM system and associated equipment available for inspection upon request by NMFS OLE personnel, USCG personnel, state enforcement personnel, or any authorized officer.

(q) *Retention requirements.* The operator of a vessel on an EM trip must retain all fish until landing, with exceptions listed below. The operator of a non-trawl vessel must discard Pacific halibut, Dungeness crab caught seaward of Washington or Oregon, green sturgeon, eulachon, seabirds, sea turtles, and marine mammals.

(1) Mutilated and depredated fish may be discarded.

(2) Crabs, starfish, coral, sponges, and other invertebrates may be discarded.

(3) Trash, mud, rocks, and other inorganic debris may be discarded.

(4) A discard that is the result of an event that is beyond the control of the vessel operator or crew, such as a safety issue or mechanical failure, is permitted.

(r) *Changes to retention requirements.* Retention requirements for non-trawl vessels have been designated as “routine,” which means that they can be changed after a single Council meeting following the procedures described at §660.60(c).

(s) *Catch handling.* The vessel operator of a vessel on an EM trip must ensure that all catch is handled in a manner that enables the EM system to record it and that is consistent with the specific catch handling instructions in the NMFS-accepted VMP.

(t) *Reporting requirements.*

(1) *Discard logbook.* The operator of a vessel with a valid EM Authorization must complete, submit, and maintain onboard the vessel an accurate federal discard logbook for each EM trip on forms supplied by or approved by NMFS. If authorized in writing by the NMFS, a vessel owner or operator may submit reports electronically, for example by using a VMS or other media. A state logbook that contains all the required information may be submitted in place of a

federal discard logbook. If the operator of an MS/CV vessel, the vessel operator must provide logbook information to the mothership observer by transmitting the logbook information via radio or email to the mothership at the completion of each haul.

(2) *Submission of logbooks.* Vessel operators must submit copies of the federal discard logbook and state retained logbook to NMFS or its agent postmarked within 24-hours of the end of each EM trip.

(3) *Submission of hard drives.* Vessel operators must submit hard drives to NMFS or its agent using a method that requires a signature for delivery and provides a return receipt or delivery notification to the sender. Beginning January 1, 2020, or earlier if announced by NMFS in the Federal Register with six months prior notice, a vessel operator must submit hard drives to the vessel owner's contracted EM service provider. Deadlines for submission are as follows:

(i) *Pacific whiting IFQ vessels.* Hard drives containing data from an EM trip must be postmarked within 10 calendar days of the end of that EM trip.

(ii) *Mothership catcher vessels.* Hard drives containing data from an EM trip must be postmarked within 24-hours of the catcher vessel's return to port.

(iii) *Non-trawl vessels.* Hard drives containing data from an EM trip must be postmarked within 10 calendar days of the end of that EM trip.

(u) *Retention of records.* The operator of a vessel with a valid EM Authorization must maintain federal discard logbooks onboard the vessel until the end of the fishing year during which the EM trips were conducted, and make the report forms available to observers, NMFS staff, or authorized officers, upon request. The vessel owner must maintain the federal discard logbooks and other records specified in this section, or used in the preparation of records or reports specified in this section or corrections to these reports, for a period of not less than three years after the date of landing from an EM trip. The vessel owner must make such records available for inspection by NMFS staff or authorized officers, upon request.

(v) *First receiver requirements.*

(1) *Prohibited species handling and disposition.* To ensure compliance with fishery regulations at 50 CFR part 300, subparts E and F, and part 600, subpart H; with the Pacific Salmon Fishery Management Plan; and with the Pacific Halibut Catch Share Plan; the handling and disposition of all prohibited species in EM trip landings are the responsibility of the first receiver and must be consistent with the following requirements:

(i) Any prohibited species landed at first receivers must not be transferred, processed, or mixed with another landing until the catch monitor has: recorded the number and weight of salmon by species; inspected all prohibited species for tags or marks; and, collected biological data, specimens, and genetic samples.

(ii) No part of any prohibited species may be retained for personal use by a vessel owner or crew member, or by a first receiver or processing crew member. No part of any prohibited species may be allowed to reach commercial markets.

(iii) Prohibited species suitable for human consumption at landing must be handled and stored to preserve the quality. Priority in disposition must be given to the donation to surplus food collection and distribution system operated and established to assist in bringing donated food to nonprofit charitable organizations and individuals for the purpose of reducing hunger and meeting nutritional needs.

(iv) The first receiver must report all prohibited species landings on the electronic fish ticket and is responsible for maintaining records verifying the disposition of prohibited species.

Records on catch disposition may include, but are not limited to: Receipts from charitable organizations that include the organization's name and amount of catch donated; cargo manifests setting forth the origin, weight, and destination of all prohibited species; or disposal receipts identifying the recipient organization and amount disposed. Any such records must be maintained for a period not less than three years after the date of disposal and such records must be provided to NMFS OLE upon request.

(2) *Protected Species handling and disposition.* All protected species must be abandoned to NMFS or the US Fish and Wildlife Service or disposed of consistent with paragraphs (g)(3)(ii)(A) and (B) of this section. No part of any protected species may be retained for personal use by a vessel owner or crew member, or by a first receiver or processing crew member. No part of any protected species may be allowed to reach commercial markets.

(i) *Eulachon and green sturgeon.* Must be sorted and reported by species on electronic fish tickets and state landing receipts and may not be reported in unspecified categories. Whole body specimens of green sturgeon must be retained, frozen, stored separately by delivery, and labeled with the vessel name, electronic fish ticket number, and date of landing. Arrangements for transferring the specimens must be made by contacting NMFS Southwest Fisheries Science Center at 831-420-3903 within 72 hours after the completion of the offload.

(ii) *Seabirds, marine mammals, and sea turtles.* Albatross must reported to the U.S. Fish and Wildlife Service 541-867-4558 extension 237 or 503-231-6179) as soon as possible and directions for surrendering must be followed. Marine mammals and sea turtles must be reported to NMFS as soon as possible (206-526-6550) and directions for surrendering or disposal must be followed. Whole body specimens must labeled with the vessel name, electronic fish ticket number, and date of landing. Whole body specimens must be kept frozen or on ice until arrangements for surrendering or disposing are completed. Unless directed otherwise, after reporting is completed, seabirds, marine mammals, and sea turtles may be disposed by incinerating, rendering, composting, or returning the carcasses to sea.

10. Revised Trawl fishery—management measures (Section 660.130)

§660.130 Trawl fishery—management measures.

(d) * * *

(2) * * *

(ii) *Catcher vessels.* All catch must be sorted to the species groups specified in paragraph (d)(1) of this section for vessels with limited entry permits, except those engaged in maximized retention while declared into a Pacific whiting IFQ trip. The catch must not be discarded from the vessel and the vessel must not mix catch from hauls until the observer has sampled the catch, unless otherwise allowed under the EM Program requirements at section 660.604 of subpart J. Prohibited species must be sorted according to the following species groups: Dungeness crab, Pacific halibut, Chinook salmon, other salmon. Non-groundfish species must be sorted as required by the state of landing.

(3) * * *

(ii) If sorting occurs on a catcher vessel in the MS Coop Program, the catch must not be discarded from the vessel and the vessel must not mix catch from hauls until the observer has sampled the catch, or unless otherwise allowed under the EM Program requirements at section 660.604 of subpart J.

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11. Revised Shorebased IFQ Program (Section 660.140)

§660.140 Shorebased IFQ Program.

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(g) *Retention and disposition requirements*—(1) *General*. Shorebased IFQ Program vessels may discard IFQ species/species groups, provided such discards are accounted for and deducted from QP in the vessel account. With the exception of vessels on a declared Pacific whiting IFQ trip and engaged in maximized retention and vessels fishing under a valid EM Authorization in accordance with section 660.604 of subpart J, prohibited and protected species must be discarded at sea; Pacific halibut must be discarded as soon as practicable and the discard mortality must be accounted for and deducted from IBQ pounds in the vessel account. Non-IFQ species and non-groundfish species may be discarded at sea, unless otherwise required by EM Program requirements at 660.604 of subpart J. The sorting of catch, the weighing and discarding of any IBQ and IFQ species, and the retention of IFQ species must be monitored by the observer.

* * * * *

(h) *Observer requirements*—(1) *Observer coverage requirements*—(i) *Coverage*. The following observer coverage pertains to certified observers obtained from an observer provider permitted by NMFS.

(A) Any vessel participating in the Shorebased IFQ Program:

(1) Must carry a certified observer on any fishing trip from the time the vessel leaves port and until the completion of landing (until all catch from that fishing trip has been offloaded—see landing at §§660.11 and 660.60(h)(2)).

(2) Must carry an observer at any time the vessel is underway in port, including transit between delivery points when fish is offloaded at more than one IFQ first receiver.

(3) Is exempt from the requirement to maintain observer coverage as specified in this paragraph while remaining docked in port when the observer makes available to the catch monitor an Observer Program reporting form documenting the weight and number of bocaccio, yelloweye rockfish, canary rockfish, and cowcod retained during that trip and which documents any discrepancy the vessel operator and observer may have in the weights and number of the overfished species, unless modified inseason under routine management measures at §660.60(c)(1).

(4) Is exempt from the requirement to carry an observer if the vessel has a valid EM Authorization and is fishing with EM under section §660.604 of subpart J.

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12. Revised Mothership (MS) Coop Program (Section 660.150)

§660.150 Mothership (MS) Coop Program

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(i) *Retention requirements.* Catcher vessels participating in the MS Coop Program may discard minor operational amounts of catch at sea if the observer or EMS has accounted for the discard (i.e., a maximized retention fishery).

(j) *Observer requirements—(1) Observer coverage requirements.* (i) *Coverage.* The following observer coverage pertains to certified observers obtained from an observer provider permitted by NMFS.

(A) *MS vessels.* Any vessel registered to an MS permit 125 ft (38.1 m) LOA or longer must carry two certified observers, and any vessel registered to an MS permit shorter than 125 ft (38.1 m) LOA must carry one certified observer, each day that the vessel is used to take, retain, receive, land, process, or transport groundfish.

(B) *Catcher vessels.* Any vessel delivering catch to any MS vessel must carry one certified observer each day that the vessel is used to take groundfish, unless the catcher vessel has a valid EM Authorization and is fishing with EM under section 660.604 of subpart J.

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Draft EM Program Guidelines

Vessel Monitoring Plan Guidelines

To obtain an EM Authorization, a vessel owner would be required to develop an individual Vessel Monitoring Plan (VMP) that describes how fishing operations on the vessel will be conducted and how the EM system and associated equipment will be configured to effectively monitor fishing activities and document any discards. NMFS would review the vessel monitoring plan to ensure that the equipment installed and the proposed operations of the vessel would effectively monitor vessel operations. NMFS would provide a template and suggested best practices or example content that could be used to address each of the required components. We have included some examples from the 2015 EFPs in brackets in the sections that follow, and are seeking additional ideas from the GEMPAC/TAC and public for best practices and other information to include.

Vessel Monitoring Plan Contents

Element 1: Contact Information

- a. Provide the name, address, phone number, and signature of the vessel owner, and the date of the application.
- b. Provide the name, address, phone number, email address, and preferred method of contact, of a primary point of contact for vessel operations. This should be the person, such as the vessel captain, that NMFS, PSMFC, and the EM service provider would call to provide feedback on catch handling, logbook reporting, etc. and that can make changes accordingly.
- c. Provide the name, address, and phone number of the vessel's EM service provider, and contact information for a primary point of contact at the EM service provider for technical support and program operations.

Element 2: General Vessel Information

- a. Provide the vessel name and documentation number/state registration number.
- b. Indicate what type of gear the vessel will be using.
- c. Indicate what sector the vessel will be participating in (shorebased whiting, shorebased fixed gear, or MS/CV).
- d. Provide the vessel's homeport.

Element 3: Vessel Layout

- a. Include a diagram of the vessel layout including deck measurements and locations of sorting, a measuring board, and discard control points.
- b. Include the measurements of all bins, baskets and compartments that will be used to calculate volumetric estimates of weight. Provide photos of bins and baskets to assist video reviewers in identifying them on camera.

[We can provide an example diagram like the ones that have been used in EFP VMPs.]

Element 4: EM Equipment Set-up

- a. Describe the number and location of cameras and provide images of corresponding views.
- b. Describe the location of lighting, control center, GPS, sensors, monitor, and other EM equipment.
- c. List the coordinates of the home port box, if a geo-referenced port box will be used to trigger data collection.
- d. List the frame rates, image resolution, frequency of data logging, sensor trigger threshold values, and other EM system specifications.

[As an example of system settings, the following type of language has been included in the EFP VMPs:

- *The EM system records sensor every 10 seconds for the duration of the fishing trip when powered on.*
- *The EM system is configured to record video whenever there is fishing activity taking place. To achieve this, video recording is triggered whenever the hydraulic sensor detects pressure equal to or greater than 125 psi or the drum sensor registers 1 or more turns. The system continues to record video for 2 hours after fishing activity, as indicated by the sensor readings dropping below the specified thresholds. The deck view will record continuously after the first trigger until the vessel returns to port.]*

Element 5: Catch Handling Procedures

- a. Describe the location and procedures for any catch handling, procedures for sorting and measuring discards, the number of crew sorting catch, and what steps will be taken to ensure that all catch remains in camera view.

[As an example of specific catch handling instructions, the following type of language has been included in EFP VMPs:

- *All catch handling will be complete before the start of the next haul.*
- *All discarding of catch (both IFQ and non-IFQ) will occur at the designated discard control point(s) at the starboard rail.*
- *For discarding predated sablefish –all the predated fish that are intended to be discarded will be placed in a tote in view of camera together before throwing them overboard at the end of the haul. This will help when counting fish.*
- *If the carcass has both head and tail attached, it will be held up to the measuring board, with nose against one end of the board, before placing in the tote.]*

Element 6: EM System Malfunctions

- a. Describe the detailed steps that will be taken to minimize the potential for EM system malfunctions and the steps will be taken, when malfunctions occur, to ensure the adequate monitoring of catch.

[As an example, the following table is being developed for 2016 VMPs:

Type of Malfunction	Critical?	Potential Solution	Action
Drum sensor	Not critical	Carry spare reflectors	Vessel operator may continue fishing but must trigger video recording manually, if necessary.
Hydraulic sensor	Not critical	Restart system	Vessel operator may continue fishing but must trigger video recording manually and continue recording for remainder of trip.
Both drum and hydraulic sensors	Critical	Restart system. Carry spare reflectors.	If the vessel has an observer onboard, continue fishing. If the vessel does not have an observer onboard, return to port.
GPS	Critical	Restart system	If the vessel has an observer onboard, continue fishing. If the vessel does not have an observer onboard, return to port.
Keyboard	Not critical, if cameras can record without it.	Replace with another keyboard	Vessel operator may continue fishing provided cameras can record without keyboard.
Monitor	Critical because it prevents vessel operator from detecting other malfunctions	Replace with another monitor	If the vessel has an observer onboard, continue fishing. If the vessel does not have an observer onboard, return to port.
Control box	Critical because it prevents data from being stored.	Restart system	If the vessel has an observer onboard, continue fishing. If the vessel does not have an observer onboard, return to port.
Lighting	Critical	Vessel will not retrieve gear at night	Vessel may continue fishing provided it does not retrieve gear at night.

Camera 1	Critical	Restart system; replace with spare camera	If the vessel has an observer onboard, continue fishing. If the vessel does not have an observer onboard, return to port
Camera 2	Critical	Restart system; replace with spare camera	If the vessel has an observer onboard, continue fishing. If the vessel does not have an observer onboard, return to port
Camera 3	Critical	Restart system; replace with spare camera	If the vessel has an observer onboard, continue fishing. If the vessel does not have an observer onboard, return to port
Camera 4	Critical	Restart system; replace with spare camera	If the vessel has an observer onboard, continue fishing. If the vessel does not have an observer onboard, return to port

Electronic Monitoring Service Plan Guidelines

As part of an application for an EM service provider permit and endorsement, a service provider would be required to submit an EM Service Plan that describes how the EM service provider will provide EM services to the fleet. NMFS would review the EM Service Plan as part of the application package to ensure that it meets all the required elements and would effectively fulfill the EM service provider responsibilities. NMFS would provide a template and suggested best practices or example content that could be used to address each of the required components. Since the EM Service Plan is a new concept, we do not have any example content to include at this time, but are seeking ideas from the GEMPAC/TAC and public for best practices and other information to include.

EM Service Plan Contents

Element 1: EM Service Provider Information

- a. Provide the name, address, phone number, and email address of EM service provider.
- b. Provide contact information for a primary point of contact for program operations inseason.

Element 2: Program Management

- a. Describe procedures for hiring and training of competent program staff to carryout EM field services and data services, including procedures to maintain the skills of EM data processing staff in:
 - (1) Use of data processing software;
 - (2) Species identification;
 - (3) Fate determination and metadata reporting requirements;
 - (4) Data processing procedures;
 - (5) Data tracking; and,
 - (6) Reporting and data upload procedures.
- b. Describe procedures for communicating with individual vessel operators and NMFS to coordinate field services, technical support and other assistance, and to communicate feedback on vessel operations.

Element 3: Hard Drive Management

- a. Describe procedures for tracking hard drives throughout their use cycle (e.g., inventory management system).
- b. Describe procedures to ensure the integrity and security of hard drives in transit (e.g., use of sealed tamper evident envelopes for hard drives).
- c. Describe procedures to erase hard drive to remove confidential data before returning them to the field.

Element 4: Data Processing

- a. Describe procedures for tracking of EM datasets throughout their processing cycle and documenting any access and modifications.
- b. Describe procedures for data processing, including interpretation, analysis, consolidation, and reporting.

- c. Describe procedures for correction and resubmission of EM datasets that NMFS has determined are not sufficient and to ensure that future datasets are sufficient for use by NMFS.
- d. Describe the EM service provider's policies on data access, handling, and release to maintain the confidentiality of the EM Program data.
- e. Describe procedures for archiving of EM datasets and raw video, sensor and GPS data, etc., after reports have been submitted to NMFS.

Element 5: EM System and Software

- a. Describe the EM system to be deployed, including identifying characteristics, manufacturer, brand name, model name, model number, software version and date, firmware version number and date, hardware version number and date, monitor/terminal number and date, pressure sensor model number and date, drum rotation sensor model number and date, and GPS model number and date.
- b. Describe how the EM system meets the EM system performance standards in the regulations at 50 CFR 660.604(1).
- c. Describe identifying characteristics of the video review software to be used to analyze EM data, including: manufacturer, brand name, software version and date, firmware version number and date.
- d. Describe how the video review software would provide sufficient data for management.

[Are there any additional technical specifications that NMFS should include for the EM system and video review software?]