

Flow Scale Regulation Revisions

At-sea flow scale regulations for the Alaska Region at 679.28 were revised on December 18, 2014 (November 18, 2014, 79 FR 68610). The revisions were made to improve scale accuracy and reduce bias. The need for regulatory revisions were in part driven by enforcement violations¹. The Alaska revisions require the use of new scale technologies, revised daily scale test methods, and added requirements for video monitoring (Figure 1). Because catcher/processor (C/P) and mothership (MS) vessels use flow scales certified by the Alaska Region when fishing in the Pacific whiting fishery, equipment requirements at 660.15 need to be updated to be consistent with the requirements specified for the Alaska Region.

Since implementation of the Shorebased Individual Fishery Quota (IFQ) Program in 2011, several IFQ first receivers have installed flow scales that were not anticipated in the regulations. The states of Oregon and Washington have tested the flow scales consistent with national weights and measures standards. However, the first receiver equipment regulations need to be updated and inseason scale test requirements added specifically for flow scales.

At the September 2014 Pacific Fishery Management Council (Council) meeting, the Council considered the need to realign the Pacific Coast Groundfish flow scale regulations with the Alaska Region and recommended that NMFS draft regulations for deeming by the Council in September 2015. In June 2015, the Council recommended removing regulatory deeming from the September Agenda. Given the importance of accurate and reliable catch accounting, NMFS is providing the draft regulations at this meeting. It is our desire to move forward on implementation of the revisions consistent with the intent of Amendment 20 to the fishery management plan (FMP).

Flow Scale Revisions for C/P and MS Coop Processing Vessels

At-sea scales can provide precise and accurate catch estimates needed for catch share programs. Because catch share programs limit vessel operators to specific amounts of catch, vessel operators may have an incentive to underreport catch to allow fishing beyond specific catch limits. Requiring certified scale for independently verifying catch, reduces the vessel operator's ability to under report. However, catch estimates based on inaccurate scale weights could systematically underestimate harvests. Modifying the regulations consistent with the Alaska Region would bring the scales up to date with current technology, reduce the potential for scale tampering, and generally improve catch accounting accuracy.

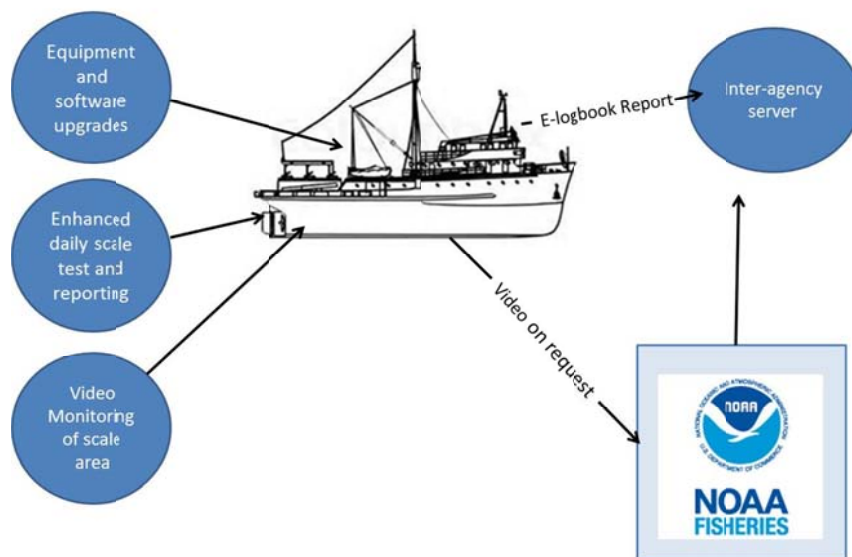


Figure 1. Components of the flow scale regulations for C/P and MS vessels that weigh catch at-sea.

¹ (http://www.nmfs.noaa.gov/ole/slider_stories/2013/13_051313americanseafoodsnovas.html)

Draft regulations presented in Attachment A of this report include revisions to the current regulations at 660.15 (b) for the C/P and MS vessels. The changes would update the performance and technical requirements for scales to be consistent with the Alaska regulations at 679.28. New generation scales are now required in the Alaska fisheries. Improved scale technology includes features that allow NMFS to determine how well the flow scales are performing, and improve the accuracy and reliability of flow scale measurements. Because the C/P and MS coop processing vessels already have upgraded scale systems for the Alaska Fisheries, aligning the requirements for Pacific Coast groundfish fishery is not expected to result in an added burden for the affected vessels.

Regulatory revisions would include improvements to daily scale tests. The types of material used for the daily scale test would be more restrictive and include test materials (i.e. pre-weighed sand bags) supplied by the scale manufacturer or approved by a NMFS-authorized scale inspector. The minimum test weight and number of runs would be clearly stated in regulations. In addition, new requirements for documenting failed scale tests, and printing audit and calibration reports would be specified.

Regulatory revisions would require that all C/Ps and MS vessels use video monitoring systems that meet the Alaska fishery system requirements specifies at 50 CFR 679.28(e). The video monitoring systems allow the activities around the flow scale to be monitored. The Video systems ensure that the flow scale is functioning properly (e.g., that the flow scale is not running while in a fault (error) state), ensure that all fish are being weighed, detect when crew members are working on the flow scale, and ensure that daily flow scale tests are being conducted on the required schedule and with the appropriate test weights. The video systems would be required to capture imagery of areas where the catch enters, moves across and leaves the scale; of access points that may be adjusted or modified by crew; and, of the scale display and the indicator of when the scale operating in a fault state. Consistent with the Alaska requirements, the video data must be maintained by the vessel operator for at least 120 days and made available to NMFS upon request. All of the vessels subject to at-sea scales requirements are required to have video systems for the Alaska fisheries. Therefore, the increased burden would be the time to operate the systems while fishing in the Pacific whiting fishery.

Although the Alaska regulations included a new daily scale test reporting requirement, the reporting requires were added to an existing electronic reporting system. At this time, there is no electronic logbook (E-logbook) in place for either the C/P or MS Coop fisheries. Until E-logbooks are in place, documentation would continue to be done on paper forms.

Flow Scale Revisions for IFQ First Receivers

The regulations presented in Attachment A of this report include revisions to the current regulations at 660.15(c) for scale used by first receivers. The regulatory changes for first receivers would include: refining terms to align with defined terms; adding catch monitors to the list of individual that have access to scale displays and printouts; revisions to inseason scale test requirements specific to flow scales; and the correction of an incorrect value for maximum error in scale divisions.

E-logbooks for C/P and MS Coop Vessels

From 1991 to 2010 catcher vessels and processing vessels in the at-sea Pacific whiting fisheries voluntarily submitted paper logbooks to NMFS. When trawl rationalization was implemented, the voluntary logbooks were discontinued. The need to restore at-sea logbooks for the Observer Program and enforcement has been identified. Observers need the logbooks as a consistent source for gathering fishery effort data. Enforcement needs the logbooks for reporting daily flow scale test results. NMFS would like to move forward with E- logbooks for the C/P and MS sectors at a future date when the software has been developed. Attachment B of this report contains the type of regulations that would be proposed for E-logbooks. It is our intent to work with Pacific States Marine Fisheries Commission to develop an E-logbook that satisfies the Observer program and enforcement needs and which looks similar to those that the vessels are familiar with from Alaska.

Attachment A

KEY TO AFFECTED REGULATORY LANGUAGE
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§660.15 Equipment requirements.

(a) *Applicability.* This section contains the equipment and operational requirements for scales used to weigh ~~each~~ fish at sea, scales used to weigh catch at IFQ first receivers, video monitoring systems, computer hardware for electronic fish ticket software, and computer hardware for electronic logbook software. ~~Unless otherwise specified by regulation, the operator or manager must retain, for 3 years, a copy of all records described in this section and make available the records upon request of NMFS staff or authorized officer.~~

(b) *Scales used to weigh catch at sea.* ~~—performance and technical requirements.~~ Vessel owners, operators, and managers are jointly and severally responsible for their vessel's compliance with the requirements specified in this section.

(1) *Performance and technical requirements for scales* ~~approved by NMFS for in the MS and C/P Coop Programs.~~ A scale used to weigh catch in the MS and C/P Coop Programs must meet the type evaluation requirements, ~~and~~ initial inspection and annual reinspection requirements set forth in 50 CFR 679.28(b)(1) and (2), and must be approved by NMFS to weigh catch at-sea.

(2) *Annual inspection.* Once a scale is installed on a vessel and approved by NMFS for use to weigh catch at-sea, it must be reinspected annually within 12 months of the date of the most recent inspection to determine if the scale meets all of the applicable performance and technical requirements as described in 50 CFR 679.28(b).

(3) *Daily testing.* ~~The vessel operator must ensure that the vessel crew test e~~Each required scale must be tested daily each calendar day to ensure that each scale meets the maximum permissible error ~~(MPE)~~ requirements described at paragraph (b)(4) of this section.

(4) *Daily Aat-sea scale tests.* To verify that the scale meets the maximum permissible errors ~~(MPEs)~~ specified in this paragraph, ~~the vessel operator must ensure that vessel crew test~~ each scale used to weigh catch must be tested at least one time during each ~~24-hour period~~ calendar day when use of the scale is required. ~~The vessel owner must ensure that these tests are~~ must be performed in an accurate and timely manner.

(i) *Belt scales.*

(A) *Maximum permissible errors.* The ~~MPE~~ maximum permissible errors for the daily at-sea scale test is plus or minus 3 percent of the known weight of the test material.

(B) *Test Procedure.* A material test must be conducted by weighing no less than ~~The scale must be tested by weighing at least 400 kg (882 lb) of fish or an alternative material supplied by~~

~~the scale manufacturer on the scale under test.~~ of test material, supplied by the scale manufacturer or approved by a NMFS-authorized scale inspector, on the scale under test. The test material may be run across the scale multiple times in order to total 400 kg; however, no single run batch of test material across the scale may weigh less than 40 kg. The known weight of ~~the fish or~~ test material must be determined at the time of each scale test by weighing it on a platform scale approved for use under 50 CFR 679.28(b)(7).

(ii) Platform scales used required for observer sampling on MSs and C/Ps. or to determine known weight of test material on MS and C/P vessels.

(A) Maximum permissible errors. The maximum permissible errors for the daily at-sea scale test for platform scales is plus or minus 0.5 percent of the weight tested.

(B) Test Procedure. A platform scale used for observer sampling must be tested at 10, 25, and 50 kg (or 20, 50, and 100 lb if the scale is denominated in pounds) using approved test weights. ~~The MPE for the daily at-sea scale test is plus or minus 0.5 percent.~~ Any combination of test weights that will allow the scale to be tested at 10 kg, 25 kg, and 50 kg may be used. A platform scale used to weigh catch must be tested at a weight equal to the largest amount of fish that will be weighed on the scale in one weighing.

~~(iii)~~ (C) Approved test weights. Each test weight must have its weight stamped on or otherwise permanently affixed to it. The weight of each test weight must be annually certified by a National Institute of Standards and Technology approved metrology laboratory or approved for continued use by the NMFS authorized inspector at the time of the annual scale inspection. ~~The amount of test weights that must be provided by the vessel owner is specified in paragraph (b)(3)(ii)(B) of this section.~~

~~(iv)~~ (iii) Requirements for all at-sea scale tests. ~~The vessel operator following conditions must be met~~ must ensure that vessel crew:

(A) Notify the observer at least 15 minutes before the time that the test will be conducted, and conduct the test while the observer is present.

(B) Conduct the scale test by placing the test material or test weights on or across the scale and recording the following information on the at-sea scale test report form:

(1) Vessel name;

(2) Month, day, and year of test;

(3) Time test started to the nearest minute;

(4) Known weight of test materials or test weights;

(5) Weight of test material or test weights recorded by scale;

(6) Percent error as determined by subtracting the known weight of the test material or test weights from the weight recorded on the scale, dividing that amount by the known weight of the test material or test weights, and multiplying by 100; and

(7) ~~Sea conditions at the time of the scale test.~~ Signature of vessel operator.

(C) Maintain the test report form from all at-sea scale tests, including test report forms from failed scale tests on board the vessel until the end of the fishing year during which the tests were conducted, and make the report forms available to observers, NMFS staff, or authorized officers. In addition, ~~the vessel owner must retain~~ the scale test report forms must be retained for 3 years after the end of the fishing year during which the tests were performed. Each scale test report form must be signed by the ~~vessel~~ operator immediately following completion of each scale test.

(5) *Scale maintenance.* ~~The vessel owner must ensure that the vessel operator maintains the scale~~ must be maintained in proper operating condition throughout its use; that adjustments made to the scale are made so as to bring the performance errors as close as practicable to a zero value; and that no adjustment is made that will cause the scale to weigh fish inaccurately.

(6) *Printed reports from the scale (not applicable to observer sampling scales).* ~~The vessel owner must ensure that the~~ printed reports are provided to NMFS as required by this paragraph. Printed reports from the scale must be maintained on board the vessel until the end of the year during which the reports were made, and be made available to observers, NMFS staff or authorized officers. In addition, ~~the vessel owner must retain~~ printed reports must be retained for 3 years after the end of the year during which the printouts were made.

(i) *Reports of catch weight and cumulative weight.* Reports must be printed at least once every calendar day 24 hours when use of the scale is required. Reports must also be printed before any information stored in the scale computer memory is replaced. Scale weights must not be adjusted by the scale operator to account for the perceived weight of water, slime, mud, debris, or other materials. Scale printouts must show:

(A) The vessel name and Federal vessel permit number;

(B) The date and time the information was printed;

(C) The haul number;

(D) The total weight of the haul; and

(E) The total cumulative weight of all fish and other material weighed on the scale since the last annual inspection.

(ii) *Printed report from the audit trail.* The printed report must include the information specified in sections 2.3.1.8, 3.3.1.7, and 4.3.1.8 of appendix A to 50 CFR part 679. The printed report must be provided to the authorized scale inspector at each scale inspection and must also be printed at any time upon request of the observer, NMFS staff personnel or another authorized officer.

(iii) Printed report from calibration log. The vessel operator must print the calibration log on request by NMFS staff or an authorized officer, or person authorized by NMFS. The calibration log must be printed and retained before any information stored in the scale computer memory is replaced. The calibration log must detail either the prior 1,000 calibrations or all calibrations since the scale electronics were first put into service, whichever is less. The printout from the calibration log must show:

(A) The vessel name and Federal fisheries or processor permit number;

(B) The month, day, and year of the calibration;

(C) The time of the calibration to the nearest minute in Pacific standard time;

(D) The weight used to calibrate the scale; and

(E) The magnitude of the calibration in comparison to the prior calibration.

(iv) Printed reports from the fault log. The vessel operator must print the fault log on request by NMFS staff, an authorized officer or person authorized by NMFS. The fault log must be printed and retained before any information stored in the scale computer memory is replaced. The fault log must detail either the prior 1,000 faults and startups, or all faults and startups since the scale electronics were first put into service, whichever is less. A fault, for the purposes of the fault log, is any condition other than underflow detected by the scale electronics that could affect the metrological accuracy of the scale. The printout from the fault log must show:

(A) The vessel name and Federal fisheries or processor permit number;

(B) The month, day, year, and time of each startup to the nearest minute in Pacific standard time;

(C) The month, day, year, and time that each fault began to the nearest minute in Pacific standard time;

(D) The month, day, year, and time that each fault was resolved to the nearest minute in Pacific standard time.

(v) Platform scales used for observer sampling. A platform scale used for observer sampling is not required to produce a printed record.

(7) Video monitoring for scales used by the vessel crew to weigh catch. MS or C/P vessels required to weigh catch under the regulations in this section must provide and maintain a NMFS-approved video monitoring system as specified in paragraph (e) of this section.

(c) Scales used to weigh catch fish at IFQ first receivers—performance and technical requirements. Scale requirements in this paragraph are in addition to those requirements set forth by the State in which the scale is located, and nothing in this paragraph may be construed to reduce or supersede the authority of the State to regulate, test, or approve scales within the State.

Scales used to weigh ~~each~~ fish that are also required to be approved by the State must meet the following requirements:

(1) *Verification of approval.* The scale must display a valid sticker indicating that the scale is currently approved in accordance with the laws of the state where the scale is located.

(2) *Visibility.* The IFQ first receiver must ensure that the scale and scale display are visible simultaneously to the catch monitor. Catch monitors, NMFS staff, NMFS-authorized personnel, or authorized officers must be allowed to observe the weighing of ~~each~~ fish on the scale and be allowed to read the scale display at all times.

(3) *Printed scale weights.* (i) An IFQ first receiver must ensure that printouts of the scale weight of each delivery or offload are made available to the catch monitor, NMFS staff, to NMFS-authorized personnel, or to authorized officers at the time printouts are generated. An IFQ first receiver must maintain printouts on site until the end of the fishing year during which the printouts were made and make them available upon request by the catch monitor, NMFS staff, NMFS-authorized personnel, or authorized officers for 3 years after the end of the fishing year during which the printout was made.

(ii) All automatic bulk weighing scales identified in a catch monitoring plan (see §660.140(f)(3), ~~subpart D~~) must produce a printed record for each delivery landing, or portion of a delivery landing, weighed on that scale, ~~unless specifically exempted by NMFS.~~ NMFS may exempt, through approval as part of the NMFS-accepted catch monitoring plan, scales not designed for automatic bulk weighing from part or all of the printed record requirements. IFQ first receivers that receive no more than 200,000 pounds of groundfish in any calendar month may be exempt under 660.140(j)(2). For scales that must produce a printed record, the printed record must include:

(A) The IFQ first receiver's name;

(B) The weight of each load in the weighing cycle;

(C) The total weight of fish in each landing, or portion of the landing that was weighed on that scale;

(D) For belt scales and weight belts, the total cumulative weight of all fish or other material weighed on the scale since the last inspection.

(E) The date the information is printed; and

(F) The name and vessel registration or documentation number of the vessel making the delivery landing. The scale operator may write this information on the scale printout in ink at the time of printing.

(4) *Inseason scale testing.* IFQ first receivers must allow, and provide reasonable assistance to NMFS staff, NMFS-authorized personnel, and authorized officers to test scales used to weigh IFQ ~~each~~ fish. A scale that does not pass an inseason test may not be used to weigh IFQ ~~each~~ fish.

fish until the scale passes an inseason test or is approved for continued use by the weights and measures authorities of the State in which the scale is located.

(i) *Inseason testing criteria.* To pass an inseason test, NMFS staff or authorized officers must be able to verify that:

(A) The scale display and printed information are clear and easily read under all conditions of normal operation;

(B) Weight values are visible on the display until the value is printed;

(C) The scale does not exceed the maximum permissible errors specified in this paragraph the following table:

(1) Belt scales and weight belts (flow scales). The maximum permissible error is plus or minus 0.25 percent of the known weight of the test material with repeatability between tests of no more than 0.25 percent. Percent error as determined by subtracting the known weight of the test material or test weights from the weight recorded on the scale, dividing that amount by the known weight of the test material or test weights, and multiplying by 100.

(2) All other scales.

<i>Test load in scale divisions</i>	<i>Maximum error in scale divisions</i>
(1) 0-500	1
(2) 501-2,000	2
(3) 2,001-4,000	3
(4) >4,000	<u>4.5</u>

(D) *Automatic weighing systems.* An automatic weighing system must be provided and operational that will prevent fish from passing over the scale or entering any weighing hopper unless the following criteria are met:

(1) No catch may enter or leave a weighing hopper until the weighing cycle is complete;

(2) No product may be cycled and weighed if the weight recording element is not operational; and

(3) No product may enter a weighing hopper until the prior weighing cycle has been completed and the scale indicator has returned to a zero.

(ii) [Reserved]

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(e) Video monitoring systems used monitor at-sea scales.

(1) Performance and technical requirements for video monitoring systems for the MS and C/P Coop Programs. A video monitoring system used to monitor at-sea scales must meet the system requirements and system inspections, set forth in 50 CFR 679.28(e)(1) through (4) and be issued a Video Monitoring Inspection Report verifying that the video system meets all applicable requirements for use in the Alaska Pollock fishery. Any change to the system must meet the requirements specified at 50 CFR 679.28 (7) before any changes are made.

(i) MS or C/P vessels required to weigh catch at-sea under the regulations in this section must:

(A) Provide and maintain a video monitoring system that provides sufficient resolution and field of view to monitor: All areas where catch enters the scale, moves across the scale and leaves the scale; any access point to the scale from which the scale may be adjusted or modified by vessel crew while the vessel is at sea; and the scale display and the indicator for the scale operating in a fault state.

(B) Record and retain video for all periods when catch that must be weighed is on board the vessel.

(2) A current NMFS-issued Video Monitoring System Inspection Report must be maintained on board the vessel at all times the vessel is required to have an approved video monitoring system. The Video Monitoring System Inspection Report must be made available to the observer, NMFS staff, or to an authorized officer upon request.

(3) Retention of records. Consistent with the requirements set forth at 50 CFR 679.28(e)(1), the video data must be maintained on the vessel and made available on request by NMFS staff, or any individual authorized by NMFS. The data must be retained on board the vessel for no less than 120 days after the date the video is recorded, unless NMFS has notified the vessel operator in writing that the video data may be retained for less than this 120-day period.

§660.112 Trawl fishery—prohibitions.

(c) MS and C/P Coop Programs.

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(5) Fail to weigh all fish taken and retained aboard the vessel on a scale that meets the performance and technical requirements specified at 660.15(b).

(6) Weigh fish taken and retained aboard the vessel without operating and maintaining a video monitoring system that meets the performance and technical requirements specified at 660.15(e).

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§660.113 Trawl fishery—recordkeeping and reporting.

(c) MS Coop Program (coop and non-coop fisheries).

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(2) *NMFS-approved scales*—(i) *Scale test report form*. Mothership vessel operators are responsible for conducting scale tests and for recording the scale test information on the at-sea scale test report form as specified at §660.15(b), ~~subpart C~~, for mothership vessels.

(ii) *Printed scale reports*. Specific requirements pertaining to printed scale reports and scale weight print outs are specified at §660.15(b), ~~subpart C~~, for mothership vessels.

(iii) *Retention of scale records and reports*. The vessel must maintain the test report form on board until the end of the fishing year during which the tests were conducted, and make the report forms available to observers, NMFS staff, or authorized officers. In addition, ~~the vessel owner must retain~~ the scale test report forms must be maintained for 3 years after the end of the fishing year during which the tests were performed. All scale test report forms must be signed by the vessel operator.

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(d) *C/P Coop Program*

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(2) *NMFS-approved scales*—(i) *Scale test report form*. Catcher/processor vessel operators are responsible for conducting scale tests and for recording the scale test information on the at-sea scale test report form as specified at §660.15(b), ~~subpart C~~, for C/P vessels.

(ii) *Printed scale reports*. Specific requirements pertaining to printed scale reports and scale weight print outs are specified at §660.15(b), ~~subpart C~~, for C/P vessels.

(iii) *Retention of scale records and reports*. The vessel must maintain the test report form on board until the end of the fishing year during which the tests were conducted, and make the report forms available to observers, NMFS staff, or authorized officers. In addition, ~~the vessel owner must retain~~ the scale test report forms must be maintained for 3 years after the end of the fishing year during which the tests were performed. All scale test report forms must be signed by the vessel operator.

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§660.150 Mothership (MS) Coop Program.

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(b) *Participation requirements and responsibilities.*

(1) *Mothership vessels.*

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(ii) *Mothership vessel responsibilities.* The owner and operator of a mothership vessel must:

(A) *Recordkeeping and reporting.* Maintain a valid declaration as specified at §660.13(d); maintain records as specified at §660.113(a); and maintain and submit all records and reports specified at §660.113(c) including, economic data, scale tests records, cease fishing reports, and cost recovery.

* * *

(C) *Catch weighing requirements.* The owner and operator of a MS vessel must:

(1) Ensure that all catch is weighed in its round form on a NMFS-approved scale that meets the requirements described in section §660.15(b), ~~subpart C~~;

(2) Provide a NMFS-approved platform scale, belt scale, and test weights that meet the requirements described in section §660.15(b), ~~subpart C~~.

§660.160 Catcher/processor (C/P) Coop Program.

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(b) *Participation requirements and responsibilities.*

(1) *C/P vessels.*

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(ii) *C/P vessel responsibilities.* The owner and operator of a catcher/processor vessel must:

(A) *Recordkeeping and reporting.* Maintain a valid declaration as specified at §660.13(d); maintain records as specified at §660.113(a); and maintain and submit all records and reports specified at §660.113(d) including, economic data, scale tests records, cease fishing reports, and cost recovery.

* * *

(C) *Catch weighing requirements.* The owner and operator of a C/P vessel must:

(1) Ensure that all catch is weighed in its round form on a NMFS-approved scale that meets the requirements described in §660.15(b), ~~subpart C~~;

(2) Provide a NMFS-approved platform scale, belt scale, and test weights that meet the requirements described in §660.15(b), ~~subpart C~~.

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Attachment B

(a) General. Paragraphs (a) through (e) of this section apply to the owners and operators of C/P, MS vessels, motherships processing tribal catch or any catcher vessel in the MS sector. Where E-Logbooks are required, internet access or desktop client software would be supplied by NMFS, West Coast Region, 7600 Sand Point Way N.E., BIN C15700, Seattle, WA 98115-0070; phone 206-526-6140. All vessels must maintain a Daily Fishing Logbook (DFL). All processing vessels are required to submit daily at-sea scale test results.

(b) Responsibility. The operators of a C/P vessel, MS vessels, motherships processing tribal catch or catcher vessel in the MS sector are each responsible for complying with the applicable recordkeeping and reporting requirements in this section. All records must be completed in English, be submitted in the specified time, be accurate, and based on local time.

(c) Reporting. The operator of a C/P vessel, MS vessel, motherships processing tribal catch or catcher vessel in the MS sector must record and report data on the harvest or receipt of fish using E-logbooks. The operator of a C/P or MS vessel must report daily at-sea scale test results using E-logbooks.

(d) Inspection and retention of records.

(1) Inspection of records. The operator of a C/P vessel, MS vessel, motherships processing tribal catch, or catcher vessel in the MS sector must make available for inspection any record required under this paragraph immediately upon the request of an authorized officer or observer at any time during which the record is required to be maintained.

(2) Retention of records. The operator of a C/P vessel, MS vessel, motherships processing tribal catch or catcher vessel in the MS sector must retain recordkeeping and reporting documents described in this section for 3 years after the end of the fishing year during which the records were made.

(e) Required Information.

(1) C/P Vessels and catcher vessel in the MS sector.

(i) Page number. Page number numbered consecutively beginning with page one for the first day the vessel fished after the start of the fishing year and continuing throughout the logbook for the remainder of the fishing year. A separate page must be used for each day's entry and for each gear type, reporting area, or target species.

(ii) The date.

(iii) Vessel identification. The vessel's name as displayed in official documentation, the Federal permit number.

(iv) Gear. The gear type used by the vessel.

(v) Observer name. Each observers first and last name.

(vi) Haul data. For each haul received:

(A) The haul number must be consecutive beginning with number one for the first haul in the fishery management area.

- (B) Deployment time and date.
- (C) Deployment latitude (degree, minute).
- (D) Deployment longitude (degree, minute).
- (E) Retrieval time and date.
- (F) Retrieval latitude (degree, minute, second).
- (G) Retrieval long (degree, minute, second).
- (H) Average bottom depth (fm).
- (I) Average fishing depth (fm).
- (J) Amount of time codend was towed without fishing (short-wired).
- (K) Trawl performance.
- (L) Excluder use.
- (M) Vessel estimate (mt).
- (N) Flow scale weight (mt).
- (v) Flow scale daily test results:
 - (A) Total test weight
 - (B) Calculated percent error of flow scale
 - (C) Sea conditions
- (vi) Operators name and electronic signature.

(2) MS vessels and Tribal Motherships.

(i) Page number. Page number numbered consecutively beginning with page one for the first day the processing vessel received fish after the start of the fishing year and continuing throughout the logbook for the remainder of the fishing year. A separate page must be used for each day's entry and for each gear type, reporting area, or target species.

(ii) The date.

(iii) Vessel identification. The vessel's name as displayed in official documentation, the Federal permit number.

(iv) Gear. The gear type used.

(v) Observer name. Each observers first and last name.

(vi) Haul data. For each haul received:

(A) Haul number. This number must be consecutive beginning with number one for the first haul in the fishery management area.

(B) Catcher Vessels name and permit number.

(C) Delivery time and date.

(D) Delivery latitude (degree, minute, second).

(E) Delivery longitude (degree, minute, second).

(F) Vessel estimate (mt)

(G) Flow scale weight (mt)

(H) Tribal catch.

(v) Flow scale daily test results:

(A) Total test weight

(B) Calculated percent error of flow scale

(C) Sea conditions

(vi) Operators name and electronic signature.