

# **TRAWL RATIONALIZATION TRAILING ACTIONS**

## **ISSUE: GEAR ISSUES**

Note: The analysis in this version of the draft focuses on the chafing gear and midwater gear efficiency issues. Other portions of the analysis are under technical review and will be presented in April.

### *Draft Council Decision Analysis Document*

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## BACKGROUND

The Pacific Fishery Management Council (Council) is considering an amendment to Federal regulations affecting certain definitions and prohibitions or restrictions as they apply to the Pacific Coast limited entry trawl fishery. The intent of the initiative is to eliminate or rewrite those provisions that appear to be no longer needed or appropriate. This action stems from implementation of the trawl fishery rationalization program and associated provision for total catch accounting. Under trawl rationalization, it may be possible that certain gear regulations may be eliminated to gain a number of benefits without sacrificing other fishery management objectives. For example, elimination or simplification of the regulations would allow enforcement personnel to narrow the focus of their field operations and to redirect their efforts to more pressing issues. The move would also give fishermen more flexibility to experiment with alternative gear types and gear configurations with the aim of maximizing utilization of their quota shares and/or to minimize catch of overfished groundfish and Pacific halibut. The issues under consideration are grouped as follows:

1. Multiple Gears on a Trip
2. Chafing Gear
3. Gear Efficiencies

Each issue is summarized here in a format consistent with the summaries provided in Agenda Item F.8.a, Attachment 1. At the end of each issue a status summary is provided with an “☀” indicating the need for Council attention.

## Alternatives

### 1. Consider allowing multiple gears onboard a vessel participating in the IFQ fishery (Preliminary NEPA Determination: EA)

The original focus of this topic was on carrying multiple gears on a vessel at the same time as well as the possibility of using multiple gears on a trip. The November 2011 recommendations on the issue from the TRREC covered only the issue of using more than one gear on a trip. Therefore, for Council consideration, alternatives are provided here on two subtopics.

- A. carrying but not using more than one gear on a vessel during the same trip, and
- B. using more than one gear on a trip.

#### A. Allowing multiple gears onboard a vessel on the same trip (but not increasing the vessel's flexibility to use the gears)

Current regulations prohibit the onboard possession of various groundfish and non-groundfish fixed and trawl gear type combinations, which vary depending on management area. These prohibitions can be found at §660.130 (c), et seq. The following table provides a summary of the gear combinations which may not be carried on a vessel at the same time. The regulations from which this summary is drawn are provided after the table.

Table 1: Summary of allowable onboard gear type combinations for limited entry trawl vessels

	Groundfish Trawl/Other Gear Combinations		Groundfish Trawl Combinations	Bottom Trawl Combinations	
	Groundfish Trawl <sup>a/</sup>		Midwater Trawl	Small Footrope <sup>d/</sup>	Small Footrope (Other than Selective Flatfish)
----- Combined With -----					
Area	Groundfish Fixed Gear	Non-Groundfish Trawl <sup>b/</sup>	Bottom Trawl <sup>c/</sup>	Large Footrope Trawl	Selective Flatfish Trawl
S. of 40° 10' N Lat	No	No	No	No	Yes
N. of 40° 10' N Lat (shoreward)	No	No	No	No	No
N. of 40° 10' N Lat (seaward)	No	No	No	Yes	Yes

a/ Groundfish trawl includes all of the gears listed in this table except non-groundfish trawl and groundfish fixed gear.

b/ Shrimp, California halibut, sea cucumber, etc.

c/ Bottom trawl includes small footrope trawl (which includes selective flatfish trawl) and large footrope trawl.

d/ Small footrope includes selective flatfish trawl.

Regulations on which the above table is based:

Coastwide -

- Possession of groundfish trawl and groundfish fixed gear onboard at the same time is prohibited (§660.140 (k))
- Possession of groundfish trawl and non-groundfish trawl gear onboard at the same time is prohibited (§660.130 (c)(4)(i)(A) and §660.130 (c)(4)(ii)(A).
- Possession of bottom trawl gear and mid-water gear onboard at the same time is prohibited (§660.130 (c)(4)(i)(A) and §660.130 (c)(4)(ii)(A)).

Specific to the area north of 40° 10' north latitude<sup>1</sup> -

- Possession onboard of two or more bottom trawl gear types is permitted (§660.130 (c)(4)(i)(A), except possession onboard of small footrope trawl and selective flatfish trawl gear is prohibited when fishing shoreward of the RCA, where selective flatfish gear is required (§660.130 (c)(2)(i)).
- Midwater trawl gear is allowed onboard only during the primary whiting season (§660.130 (c)(4)(i)(F)).

Specific to the area south of 40° 10' north latitude<sup>2</sup> -

- Possession onboard of small footrope trawl gear (which includes selective flatfish trawl) and any other type of bottom trawl gear is prohibited (§660.130 (c)(4)(ii)(A)).

The following alternatives on carrying multiple gears on board are provided as a point of departure for discussion.

- Status Quo:** No Action (maintain the above listed regulations)
- Strawdog Alternative 1:** Allow any combinations of trawl gear types to be possessed on the same trip (maintain current prohibitions on combinations of groundfish trawl and other gears).
- Strawdog Alternative 2a:** Allow any combinations of gear types to be possessed on the same trip.
- Strawdog Alternative 2b:** Same as 2a but also allow groundfish fixed gear to be deployed, but not retrieved, on a trip on which the vessel is using trawl gear

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<sup>1</sup> From Table 1 (North) to Part 660, Subpart D. “Selective flatfish trawl gear is required shoreward of the RCA; all bottom trawl gear (large footrope, selective flatfish trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope and small footrope trawl gears (except for selective flatfish trawl gear) are prohibited shoreward of the RCA. Midwater trawl gear is permitted only for vessels participating in the primary whiting season.”

<sup>2</sup> From Table 1 (South) to Part 660, Subpart D. “Small footrope trawl gear is required shoreward of the RCA; all trawl gear (large footrope, selective flatfish trawl, midwater trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope trawl gear and midwater trawl gear are prohibited shoreward of the RCA.”

**B. Allowing use of multiple gears on a single trip**

The following alternatives are not necessarily mutually exclusive.

**Status Quo:** No action.

**Alternative 1:** Allow vessels to carry and use small footrope and selective flatfish trawl gear on the same trip (from GMT November 2011 report).

**Alternative 2:** Allow vessels to use multiple trawl gear types (bottom and midwater) to harvest non-whiting groundfish on the same trip (shoreward and seaward of the RCA and constant with current area specific trawl gear use restrictions) (TRREC Recommendation).

**Alternative 3:** Allow vessels to use multiple trawl and fixed gear types to harvest non-whiting groundfish on the same trip, subject to the declaration process and either

**Suboption A:** The more restrictive RCA regulations, or

**Suboption B:** Gear and catch are reporting by the onboard observer.

	<b>Summary: Status and Next Steps</b>
✓	Prioritized for implementation in 2013.
☼	Provide guidance on further development of alternatives.

**2. Chafing Gear (Preliminary NEPA Determination: EA)**

The chafing gear issue has been identified as a high priority for Council action. The following chafing gear alternatives were developed during discussions with industry.

**Status Quo:** No Action

**Strawdog Alternative 1:** Eliminate all chafing gear restrictions as they apply to midwater trawl gear.

**Strawdog Alternative 2:** Amend midwater trawl gear restrictions to allow for greater chafing gear coverage on the codend

Chafers may cover the bottom and sides of the codend in either one or more sections. Chafers can only be attached at the open end of the codend (end closest to trawl mouth) and sides. The terminal end (end closest to terminal end of codend) or the end of each chaffer section if using multiple chafers must be left unattached. The only chaffer allowed on the top codend panel would be reinforced netting panels under lifting, and constraining straps. All chaffers will conform to codend mesh size regulations.

	<b>Summary: Status and Next Steps</b>
✓	Prioritized for implementation in 2013.
☼	Provide guidance on further development of alternatives and process to follow (e.g. possible inclusion in PIE 2 rule).

**3. Gear Efficiencies: Allow trawl gear modifications that increase efficiency and selectivity (Preliminary NEPA Determination: EA)**

At its November 2011 meeting, the Council adopted the GAP guidance on this issue, which endorsed a TRREC recommendation on the issue, provided here as Alternative 1.

**Status Quo:** No action.

**Alternative 1 (recommendation by the GAP endorsed by the Council, November 2011):**

Eliminate codend, mesh size, chafing gear and selective flatfish trawl gear requirements and restrictions. Retain large and small footrope requirements and restrictions because of the prohibitions on gear use in the groundfish EFH (50 CFR660.130(b)(4)).

In addition to these alternatives, in November 2011, the Council endorsed a TRREC recommendation categorized under the multiple gears on board section which might more appropriately be categorized as regulatory relief related to gear regulations and efficient gear use:

TRREC Recommendation 2 (allow year round use of midwater within the RCA):

- b) allow use--with declaration--of mid-water trawl gear for all IFQ species within the RCA and groundfish essential fish habitat (EFH) conservation areas coastwide year round, except whiting would also be subject to whiting regulations. Possession of midwater trawl gear on board within the RCA or groundfish EFH conservation areas would not require declaration, but when midwater gear is used within the RCA or groundfish EFH conservation areas it is the only gear which may be used on the trip.

	<b>Summary: Status and Next Steps</b>
✓	Prioritized for implementation in 2013.
☀	Provide guidance on further development of alternatives.
☀	Consider whether to expand the scope of this item to include alternatives that would lift gear use restrictions (specifically, allowing midwater gear to be used year round within the RCA).

**Analysis of Chafing Gear and Midwater Gear Efficiency Issues**

This analysis looks at the chafing gear issue and the gear efficiency issue with respect to midwater gears. The analyses compare the proposed regulation changes with existing gear restrictions in the PFMC and North Pacific Fisheries Management Council (NPFMC) areas; provide possible rationale for proposed changes; and provide an assessment of potential impacts on the fishery, enforcement efforts, and fishery monitoring and groundfish stock assessment programs.

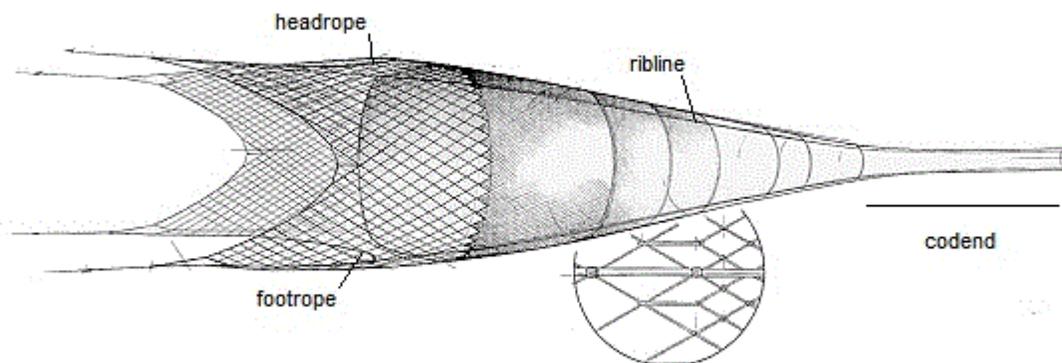
Some of the vessels that fish in the NPFMC area also fish in the PFMC management area. It follows that there is interest by trawl vessel owners that fish both areas that the gear restrictions allow for the use of the same nets in both areas. It is for that reason that the gear restrictions in the NPMFC and PFMC management areas are compared in the following sections

Some midwater trawl vessels that fish in the PFMC management area for Pacific whiting also fish midwater trawl for Alaska pollock in the NPFMC area. Comparative groundfish landings data for the two management areas in recent years are shown in Appendix C *(not provided at this time)*.

The nets used for pollock in the NPFMC area and whiting in the PFMC area are very expensive to purchase or make, thus it is very important to the vessel owners that the trawl gear construction specifications and use provisions are in close agreement between the two areas so that the nets used in one

area can be used in the other area. Midwater trawl vessel owners have brought it to the Council's and NMFS' attention that some midwater trawl gear restrictions are not in conformance between the PFMC and NPFMC management areas and that some of their nets may not be consistent with PFMC midwater trawl gear restrictions, particularly as they relate to chafing gear placement and coverage restrictions (PFMC 2011b).

Comparison of NPFMC and PFMC Midwater (Pelagic) Trawl Regulations: A review of the midwater (pelagic) trawl gear restrictions between the PFMC and NPFMC areas for this analysis showed only a few areas of agreement (or absence of conflict) between the two regulation sets (e.g., allowable number of chafing gear sections; bareness of footropes; provision for protective net meshes under transfer, lifting or splitting straps; and provisions for addition of weights to net wing tips) (Table 1. See Figure 1 for midwater trawl net illustration). The PFMC regulations were more restrictive in several areas [codend mesh construction; chafing gear placement (several areas); footrope construction and bareness of net lines running parallel to the footrope, sweep lines and bridle lines]. The NPFMC regulations were more restrictive in other areas (minimum mesh size; chafing gear placement on the footrope and headrope; attachment mechanism between the main fishing net and the headrope and footrope; configurations that would possibly negate the intent of minimum mesh size regulations; presence of flotation devices; limitation on number footropes and fishing lines; and presence of metallic components other than for fishing instrumentation). The alternatives contained in this section were developed by staff based on conversations with members of industry.



**Figure 1:** Side view illustration of a typical midwater trawl net used in the NPFMC and PFMC management areas (modified from NET systems web page: <http://www.net-sys.com/index.php>)

### Chafing Gear

Some PFMC area vessel owners have commented that the most problematic regulatory conflict is between the chafing gear restrictions in the two management areas (Table 1). They report that the nets that they use in the Alaska fishery may not be in compliance with PFMC area regulations as currently worded (PFMC 2011b). In large part this is because the NPFMC regulations are very liberal as they apply to chafing gear placement on the net; they only prohibit “chafe protection attachment” to the footrope or fishing line (Table 1). The PFMC regulations are complex in comparison. For example, the regulations limit chafing gear placement on the codend to the 50 most terminal meshes regardless of codend length and limit chafing gear coverage of the codend to 50% of the net circumference. These

latter restrictions are the most difficult for the vessel owners to comply with because the nets they use in the NPFMC area have greater chafing gear coverage on the codend than PFMC regulations allow. According to one industry member, chafing gear used in Alaska is applied to the bottom and sides of the codend and sometimes to a straight tubular netting section ahead of the codend. The purpose of chafing panels is to minimize damage to the codend netting from wear against the stern ramp and trawl alley during net retrieval.

**Strawdog Alternative 1: Eliminate all chafing gear restrictions as they apply to midwater trawl gear.**

Rational: The proposal here is to eliminate all chafing gear restrictions for midwater trawl nets used in the PFMC area. This would bring them into close agreement with the comparative midwater fishery regulations in the NPFMC area (Table 1). It would free vessel owners to configure their chafing gear to their own fishery needs.

Impacts (EC, GAP, GMT and SSC review needed): The projected fishery impact would be to allow vessels owners to use and place chafing gear the entire length of the codend and to cover an unlimited amount (100%) of the net to protect it from onboard abrasion sources. The effect would be to lengthen the effective lifespan of each net, thus reduce average annual net replacement cost. It would also be a step toward allowing them to use the midwater trawl nets that they use in the NPFMC area in the PFMC area.

The effect of the proposed regulation change would not be expected to have any sea floor habitat consequences provided the nets are fished well off the sea floor, which is believed to be the case in the West Coast whiting fishery under status quo regulations and would be expected to continue to be the case under the proposed regulation change. This is because whiting is a midwater species and allowing the net to drop to the sea floor would represent an operational inefficiency, as would fishing the net close to the sea floor where whiting are in low abundance or absent compared to midwater depths. The change could have biological consequences if expanded chafing gear coverage resulted in increased retention of nonmarketable size whiting stemming from reduced net sorting effect. There could also be increased biological impacts if increased bottom contact and close trawling to the sea floor resulted in increased harvest of non-target species. This would be a particular concern when fishing is conducted within the RCA where overfished groundfish species, which usually live close to the sea floor, are most abundant. Such outcomes would seem to be unlikely because all fish harvested under IFQ management count against vessel QP accounts and harvest of nonmarketable size fish and nontarget species, including overfished groundfish, take away from a vessel's potential fishery harvest, hence fishery revenues. On the other hand, it may be more economical for fishers to increase the harvest (and waste) of nonmarketable sized fish, depending of the operational savings associated with longer net life stemming from greater chafing gear coverage.

Close trawling to the sea floor when fishing in the RCA would be a particular concern because impacts to over fished species could result in vessel tie up, hence reduced fishery income potential, for an extended period of time due to inadequate overfished species QP. Close fishing to the sea floor, as discussed above, would represent an operational inefficiency because whiting, the target species of whiting IFQ trips, are found at midwater depths and not close to the sea floor.

The proposed regulation change would allow fishery enforcement efforts currently aimed at chafing gear compliance to be redirected to other fishery issues. No impact would be expected from the proposed regulatory change to other fishery management activities ranging from onboard observer program to states' fishery sampling and data entry programs.

**Strawdog Alternative 2: Amend midwater trawl gear restrictions to allow for greater chafing gear coverage on the codend** - Chafer may cover the bottom and sides of the codend in either one or more sections. Chafers can only be attached at the open end of the codend (end closest to trawl mouth) and sides. The terminal end (end closest to terminal end of codend) or the end of each chafer section if using multiple chafers must be left unattached. The only chafer allowed on the top codend panel would be reinforced netting panels under lifting, and constraining straps. All chaffers will conform to codend mesh size regulations.

Rationale: The strawdog alternative presented here is to amend the regulatory language that pertains to chafing gear placement on codends of midwater trawl nets used in the PFMC area. It would not affect the other midwater trawl gear restrictions as they apply to the forward (non-codend) portions of the net. The alternative presented here differs from the previous alternative in that it places restrictions on the placement of chafing gear on the codend, but allows for greater chafing gear coverage compared to current regulations overall (Table 1).

Impact (EC, GMT, GAP and SSC review needed): The previous alternative would allow for unlimited (100%) chafing gear coverage of midwater trawl nets, including codends, used in the PFMC area. Assuming all codends used in the PFMC area are of four panel design as described under this alternative and each panel is equal in size, chafing gear coverage, except at lifting straps, would be limited to 75% of the codend circumference. If the top panel of some nets is smaller than the other panels, the coverage would be >75%. Overall, there would not appear to be much difference in potential habitat or biological impact of this alternative compared to the previous alternative as it applies to codend coverage because the difference in allowable chafing gear coverage is about 25% less under this proposal. The major difference in this alternative would be with regard to chafing gear coverage of the forward net panels, which would be unchanged from current regulations.

If chafing gear placement on the codend is a factor in potential threat to seas floor habitats and harvest of nonmarketable fish and nontarget species, including overfished groundfish species, the impact under this alternative would seem to be about the same as under the previous alternative. If chafing gear coverage of net panels forward of the codend is important with regard to the potential for increased habitat and biological impacts, the threat under this alternative would appear to be the same as under status quo regulations because the proposal here is for no change in chafing gear regulations as they apply to chafing gear placement to net sections forward of the codend. Overall the potential impact of this alternative to sea floor habitats and biological systems would seem to be intermediate to those of status quo regulations and those projected for the previous alternative. On the other hand, further discussion and analysis may show that the chafing gear has little or no affect on interactions with sea floor habitat or the harvest of nonmarketable fish and nontarget species, in which case there would be little or no variation among these options with respect to these types of impacts.

The proposed regulation change under this alternative would be expected to have minimal impact to fishery enforcement efforts because there would be minor change in the number and complexity of chafing gear provisions that apply to the midwater trawl fishery. No impact would be projected from the proposed regulatory change to other fishery management activities ranging from onboard observer program to states' fishery sampling and data entry programs.

### **Other Possible Efficiencies for Midwater Trawl Gear**

Since the issue of chafing gear for midwater trawl is being considered, in order to further the discussion of gear efficiencies a comparison of other midwater gear regulations is provided along with some discussion of the effects that might arise from harmonizing the NPFMC and PFMC midwater gear regulations.

Comparison of NPFMC and PFMC area regulations: NPFMC area regulations allow for footrope augmentation except for discs, bobbins, or rollers, which are prohibited (Table 1). NPFMC regulations also allow for addition of small mesh netting to the forward part of midwater trawl nets to support fishing instrumentation. PFMC regulations specifically prohibit footrope enhancement by wrapping in midwater trawl nets and do not provide for the addition of small mesh to the anterior most portion of midwater trawl nets (Table 1). It is important to note that modification of the footrope specifications that apply to midwater trawl gear would likely entail consideration of the definitions of bottom trawl gear types found at §660.11(11)(i). This is because of conflict in footrope parameters currently used to distinguish between midwater trawl and bottom trawl gear types. Bottom trawl gear types (large and small footrope trawl) are defined, in part, based on diameter of footrope augmentations such as rollers, bobbins, or other material encircling or tied along the length of the footrope.

It is reported that some trawl manufacturers making gear for the NPFMC area wrap the footrope of midwater (pelagic) trawl nets used in Alaska with synthetic rope or braid twine over the footrope, which is usually a length of chain. The wrapping is done to protect the net from fouling of the net with the footrope on the net reel and to prevent rust damage from the footrope chain to the net during storage. It is also reported that net manufacturers may add a web patch or “kite” made of small mesh webbing to the center of the headrope in order to support a netsounder. PFMC regulations allow for footropes made of a variety of materials, including chain and wire (660.11(11)(iii)(F)). The regulations do not allow for the net modifications such as adding a web patch..

Impact of Allowing Other Midwater Gear Modifications: (EC, GAP, GMT and SSC review needed): The fishery impact would be to allow vessels owners to afford greater protection to their nets and to facilitate the use of fishery electronics to make their fishing trips more productive. These are fishery economic issues. Longer net life means lower annual net replacement cost and more efficient fishing trips means reduced overhead cost per pound of fish landed. Regulatory changes could also allow the vessel owners that fish in the NPFMC and PFMC areas to use the same midwater nets in both areas.

If other regulatory adjustments to generate efficiencies for midwater gear are considered, impacts of the changes on habitat and gear selectivity would have to be evaluated.

**Table 1. Comparison of PFMC and NPFMC midwater (pelagic) trawl gear restrictions**

	PFMC	NPFMC	More restrictive area
Codend: 1/	Single-walled webbing only (§660.130(b)(1))	No comparative restriction	PFMC
Mesh size:	3 inch minimum mesh size (§660.130(b)(2)) except for additional midwater trawl gear mesh size restrictions, explained below.	§679.2(14): (iii) Except for the small mesh allowed under paragraph (ix) of this definition (see below): (A) Has no mesh tied to the fishing line, headrope, and breast lines with less than 20 inches (50.8 cm) between knots and has no stretched mesh size of less than 60 inches (152.4 cm) aft from all points on the fishing line, headrope, and breast lines and extending passed the fishing circle for a distance equal to or greater than one half the vessel's length overall (LOA); <i>or</i> (B) Has no parallel lines spaced closer than 64 inches (162.6 cm) from all points on the fishing line, headrope, and breast lines and extending aft to a section of mesh, with no stretched mesh size of less than 60 inches (152.4 cm) extending aft for a distance equal to or greater than one-half the vessel's LOA; (iv) Has no stretched mesh size less than 15 inches (38.1 cm) aft of the mesh described in paragraph (14)(iii) of this definition for a distance equal to or greater than one-half the vessel's LOA; (ix) May have small mesh within 32 ft (9.8 m) of the center of the headrope as needed for attaching instrumentation (e.g., net-sounder device).	NPFMC

	<b>PFMC</b>	<b>NPFMC</b>	<b>More restrictive area</b>
Chafing (chafe) gear:2/	(1) Chafing gear may encircle no more than 50 percent of the net's circumference (§660.130(b)(3))	No comparative restriction	PFMC
	(2) No section of chafing gear may be longer than 50 meshes of the net to which it is attached (§660.130(b)(3)).	No comparative restriction	PFMC
	(3) Chafing gear (when used on the codend) may be used only on the last 50 meshes, measured from the terminal (closed) end of the codend (§660.130(b)(3)).	No comparative restriction	PFMC
	(4) Except at the corners, the terminal end of each section of chafing gear on all trawl gear must not be connected to the net (the terminal end is the end farthest from the mouth of the net). Chafing gear must be attached outside any riblines and restraining straps (§660.130(b)(3)).	No comparative restriction	PFMC
	(5) There is no limit on the number of sections of chafing gear on a net (§660.130(b)(3)).	No comparative restriction	No
	No comparative restriction	Has no chafe protection gear attached to the footrope or fishing line (§679.2(14)(ii)).	NPFMC

	PFMC	NPFMC	More restrictive area
General provisions	(1) Footrope 3/ must be bare (unprotected)(§660.130(b)(6)).	(1) Has no discs, bobbins or rollers (§679.2(14)(i)).	Neither
	(2) Footrope must not be enlarged with the use of chains or any other means (§660.130(b)(6)).	No comparative restriction	PFMC
	(3) Ropes or lines running parallel to the footrope must be bare and not suspended with chains or any other materials (§660.130(b)(6))	No comparative restriction	PFMC
	(4) Sweep lines and the bottom leg of the bridle must be bare (§660.130(b)(6)).	No comparative restriction	PFMC
	(5) For at least 20 ft behind the footrope or headrope, bare ropes or 16 inch minimum stretch mesh must encircle the net (§660.130(b)(6)).	See 679.2 (14) (A and B), above.	NPFMC
	(6) A band of mesh <i>may</i> encircle the net under transfer cables, lifting or splitting straps, but must be: over riblines and restraining straps and of the same mesh size and coincide knot-to-knot with the net to which it is attached (§660.130(b)(6)).	No comparative restriction	Optional
	No comparative restriction	(2) Contains no configuration intended to reduce the minimum mesh sizes described above (§679.2(14)(v)).	NPFMC
	No comparative restriction	(3) Has no flotation other than for a net sounder device. (§679.2(14)(vi)).	NPFMC
	No comparative restriction	(4) Has no more than one fishing line and one footrope (§679.2(14)(vii)).	NPFMC
	No comparative restriction	(5) Has no metallic components except for connectors or net sounder (§679.2(14)(viii)).	NPFMC
No comparative restriction	(6) May have weights on the wing tips. (§679.2(14)(x)).	Optional	

1/ Codend is defined as the terminal, closed end of a trawl net (50 CFR 600.10 Definitions)

2/ Chafing gear is defined in PFMC area regulations as webbing or other material attached to the codend of a trawl net to protect the codend from wear (§660.130 (11)(iii)(C)). Chafe protection is referred to in NPFMC regulations (see above restrictions), but is not defined.

3/ Footrope is defined in PFMC area regulations as a chain, rope or wire attached to the bottom front end of the trawl webbing forming the leading edge of the bottom panel of the trawl net, and attached to the fishing line.