

taken along the chain, with the chain held taut, and include one shackle or link at the intersection point and all links in the chain up to, but excluding, the shackle or link at the other intersection point.

(ii) Any vessel that enters the waters described in paragraph (d)(11)(i) of this section and that is required to have a Federal Atlantic sea scallop fishery permit must have the chain mat configuration installed on all dredges for the duration of the trip.

(iii) Vessels subject to the requirements in paragraphs (d)(11)(i) and (ii) of this section transiting waters west of 71° W. long., from the shoreline to the outer boundary of the Exclusive Economic Zone, will be exempted from the chain-mat requirements provided the dredge gear is not available for immediate use as defined by § 648.2 of this title and there are no scallops on-board.

[64 FR 14070, Mar. 23, 1999]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 223.206, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.govinfo.gov](http://www.govinfo.gov).

EFFECTIVE DATE NOTES: 1. At 64 FR 14070, Mar. 23, 1999, § 223.206 was revised. Paragraph (d)(5) contains information collection and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

2. At 67 FR 41203, June 17, 2002, § 223.206 was amended by adding paragraph (d)(2)(v). This paragraph contains information collection and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

#### § 223.207 Approved TEDs.

Any netting, webbing, or mesh that may be measured to determine compliance with this section is subject to measurement, regardless of whether it is wet or dry. Any such measurement will be of the stretched mesh size.

(a) *Hard TEDs.* Hard TEDs are TEDs with rigid deflector grids and are categorized as “hooped hard TEDs” and “single-grid hard TEDs” such as the Matagorda and Georgia TED (Figures 3 & 4 to this part). Hard TEDs complying with the following generic design criteria are approved TEDs:

(1) *Construction materials*—(i) *Single-grid and inshore hooped hard TED.* A single-grid hard TED or an inshore hooped hard TED must be constructed of one or a combination of the following materials, unless otherwise specifically restricted below, with minimum dimensions as follows:

(A) Solid steel rod with a minimum outside diameter of ¼ inch (0.64 cm);

(B) Fiberglass or aluminum rod with a minimum outside diameter of ½ inch (1.27 cm); or

(C) Steel or aluminum round, oval, or rectangular tubing with a minimum outside diameter or width of ½ inch (1.27 cm) and a minimum wall thickness of ⅛ inch (0.32 cm; also known as schedule 40 tubing).

(D) Steel or aluminum flat bar with dimensions no less than ¼ inch (0.64 cm) in thickness by 1½ inches (3.85 cm) in depth. For flat bar less than ¾ inch (0.95 cm) in thickness, a horizontal brace bar to reinforce the deflector bars must be permanently attached to the frame and the rear face of each of the deflector bars within 4 inches (10.2 cm) of the midpoint of the TED frame. The horizontal brace bar must be constructed of approved material consistent with paragraph (a)(1)(i) of this section. The horizontal brace bar may be offset behind the deflector bars, using spacer bars, not to exceed 5 inches (12.7 cm) in length and constructed of the same size or larger flat bar as the deflector bars.

(ii) *Offshore hooped hard TED.* An offshore hooped hard TED must be constructed of aluminum, with minimum dimensions as follows:

(A) Solid rod with a minimum outside diameter of ⅝ inch (1.59 cm); or

(B) Tubing with a minimum outside diameter of 1 inch (2.54 cm) and a minimum wall thickness of ⅜ inch (0.32 cm).

(2) *Method of attachment.* A hard TED must be sewn into the trawl around the entire circumference of the TED with heavy twine.

(3) *Angle of deflector bars.* (i) The angle of the deflector bars must be between 30° and 55° from the normal, horizontal flow through the interior of the trawl, except as provided in paragraph (a)(3)(ii) of this section.

(ii) For any shrimp trawler fishing in the Gulf SFSTCA or the Atlantic SFSTCA, a hard TED with the position of the escape opening at the bottom of the net when the net is in its deployed position, the angle of the deflector bars from the normal, horizontal flow through the interior of the trawl, at any point, must not exceed 55°, and the angle of the bottom-most 4 inches (10.2 cm) of each deflector bar, measured along the bars, must not exceed 45° (Figures 14a and 14b to this part).

(4) *Space between bars.* The space between deflector bars and the deflector bars and the TED frame must not exceed 4 inches (10.2 cm), except for TEDs required to be installed in skimmer trawls, where the space between deflector bars and the deflector bars and the TED frame must not exceed 3 inches (7.6 cm).

(5) *Direction of bars.* The deflector bars must run from top to bottom of the TED, as the TED is positioned in the net, except that up to four of the bottom bars and two of the top bars, including the frame, may run from side to side of the TED. The deflector bars must be permanently attached to the TED frame or to the horizontal bars, if used, at both ends.

(6) *Position of the escape opening.* The escape opening must be made by removing a rectangular section of webbing from the trawl, except for a TED with an escape opening size described at paragraph (a)(7)(ii)(A) of this section for which the escape opening may alternatively be made by making a horizontal cut along the same plane as the TED. A TED installed in a skimmer trawl rigged for fishing must have the escape opening oriented at the top of the net. For TEDs installed in all other trawls, the escape opening must be centered on and immediately forward of the frame at either the top or bottom of the net when the net is in the deployed position. The escape opening must be at the top of the net when the slope of the deflector bars from forward to aft is upward, and must be at the bottom when such slope is downward. The passage from the mouth of the trawl through the escape opening must be completely clear of any obstruction or modification, other than those specified in paragraph (d) of this section.

(7) *Size of escape opening—(i) Hooped hard TEDs—(A) Escape opening for inshore hooped hard TED.* The inshore hooped hard TED escape opening must have a horizontal measurement of no less than 35 inches (89 cm) wide and a forward measurement of no less than 27 inches (69 cm). A hinged door frame may be used to partially cover the escape opening as provided in paragraph (d)(7) of this section. Alternatively, a webbing flap may be used as provided in paragraph (d)(3)(i) of this section. The resultant opening with a webbing flap must be a minimum width of 35 inches (89 cm) and a minimum height of 20 inches (51 cm), with each measurement taken simultaneously. This opening may only be used in inshore waters, except it may not be used in the inshore waters of Georgia and South Carolina.

(B) *Escape opening for offshore hooped hard TED.* The offshore hooped hard TED escape opening must have a horizontal measurement of no less than 40 inches (102 cm) wide and a forward measurement of no less than 35 inches (89 cm). A hinged door frame may be used to partially cover the escape opening as provided in paragraph (d)(7) of this section. Alternatively, a webbing flap may be used as provided in paragraph (d)(3)(ii) of this section. The resultant escape opening with a webbing flap must have a stretched mesh circumference of no less than 142 inches (361 cm).

(ii) *Single-grid hard TEDs.* On a single-grid hard TED, the horizontal cut(s) for the escape opening may not be narrower than the outside width of the TED frame minus 4 inches (10.2 cm) on both sides of the grid, when measured as a straight line width. Fore-and-aft cuts to remove a rectangular piece of webbing must be made from the ends of the horizontal cuts along a single row of meshes along each side. The overall size of the escape opening must match one of the following specifications:

(A) *44-inch inshore opening.* The escape opening must have a minimum width of 44 inches (112 cm) and a minimum height of 20 inches (51 cm) with each measurement taken separately. A webbing flap, as described in paragraph (d)(3)(i) of this section, may be used with this escape hole, so long as this

minimum opening size is achieved. This opening may only be used in inshore waters, except it may not be used in the inshore waters of Georgia and South Carolina.

(B) *The 71-inch opening.* The two forward cuts of the escape opening must not be less than 26 inches (66 cm) long from the points of the cut immediately forward of the TED frame. The resultant length of the leading edge of the escape opening cut must be no less than 71 inches (181 cm) with a resultant circumference of the opening being 142 inches (361 cm) (Figure 12 to this part). A webbing flap, as described in paragraph (d)(3)(ii) or (v) of this section, may be used with this escape hole, so long as this minimum opening size is achieved. Either this opening or the one described in paragraph (a)(7)(ii)(C) of this section must be used in all offshore waters and in all inshore waters in Georgia and South Carolina, but may also be used in other inshore waters.

(C) *Double cover opening.* The two forward cuts of the escape opening must not be less than 20 inches (51 cm) long from the points of the cut immediately forward of the TED frame. The resultant length of the leading edge of the escape opening cut must be no less than 56 inches (142 cm) (Figure 16 to this part illustrates the dimensions of these cuts). A webbing flap, as described in paragraph (d)(3)(iii) or (v) of this section, may be used with this escape hole. Either this opening or the one described in paragraph (a)(7)(ii)(B) of this section must be used in all offshore waters and in all inshore waters in Georgia and South Carolina, but may also be used in other inshore waters.

(D) *Boone Wedge Cut opening.* (Figure 17 to this part). The escape opening is made by making two cuts in the TED extension; one cut is fore and aft (i.e., along the length of the extension) and the other cut is horizontal to the extension. The horizontal cut is 50 meshes long and begins at a point 4 inches (10.2 cm) inward from the outside edge of the grid on one side and runs to the same point on the opposite side of the grid. The fore and aft cut begins in the middle of the horizontal cut and runs forward 49.5 inches (125.7 cm) toward the front edge of the TED

extension. The added wedge of webbing is attached along its two leading edges to the edges of the fore and aft cut. The webbing wedge is made of 1 $\frac{1}{2}$  inch (4.8 cm) webbing and must have at least 41 meshes measuring at least 72 inches wide (182.9 cm) along its base (aft edge). The height of the wedge must measure at least 48.5 inches (123 cm). The top of the wedge is two bars across the leading edge then cut with a 1 point then 6 bar taper. A webbing flap, as described in paragraph (d)(3)(iv) of this section, may be used with this escape opening, so long as the minimum opening size is achieved.

(E) *Large TED openings.* (Figures 18a, 18b, and 18c to this part). Large TED escape openings may be utilized in the following configurations:

(1) A triangular cut (Figure 18a to this part), where the base of the triangle is defined by a straight-line measurement of the opening between the webbing attachment points on the TED frame that is no less than 40 inches (102 cm). The two side cuts of the triangle must be an all-bar taper from the point at which the webbing attaches to the TED frame to the apex of the triangle cut. Each side cut of the triangle must measure no less than 53 inches (135 cm). The sum of the straight-line base measurement and two side cuts must be no less than 147 inches (373 cm). The side cuts of the triangular opening may be reinforced using rib lines attached from the TED frame to the apex of the opening. A webbing flap, as described in either paragraph (d)(3)(ii) or (d)(3)(iii) of this section, may be used with this escape opening, so long as the minimum opening size is achieved.

(2) All-bar or all-points side cuts and a horizontal leading edge cut (Figures 18b and 18c to this part), where the straight-line measurement of the opening between the webbing attachment points on the TED frame may not be less than 40 inches (102 cm), and the two side cuts of the escape opening must not be less than 26 inches (66 cm) long from the points of the cut immediately forward of the TED frame. Only all-bar or all-points side cuts may be used; no combination tapers may be used when making the side cuts. The

sum of the straight-line base measurement and the stretched measurements of the side cuts and leading edge cut must be no less than 147 inches (373 cm). A webbing flap, as described in either paragraph (d)(3)(ii) or (d)(3)(iii) of this section, may be used with this escape opening, so long as the minimum opening size is achieved.

(8) *Size of hoop or grid*—(i) *Hooped hard TED*—(A) *Inshore hooped hard TED*. The front hoop on an inshore hooped hard TED must have an inside horizontal measurement of at least 35 inches (89 cm) and an inside vertical measurement of at least 30 inches (76 cm). The minimum clearance between the deflector bars and the forward edge of the escape opening must be at least 20 inches (51 cm).

(B) *Offshore hooped hard TED*. The front hoop on an offshore hooped hard TED must have an inside horizontal measurement of at least 40 inches (102 cm) and an inside vertical measurement of at least 30 inches (76 cm). The minimum clearance between the deflector bars and the forward edge of the escape opening must be at least 23¼ inches (59 cm).

(ii) *Single-grid hard TED*. A single-grid hard TED must have a minimum outside horizontal and vertical measurement of 32 inches (81 cm). The required outside measurements must be at the mid-point of the deflector grid.

(9) *Flotation*. Floats must be attached to the top one-half of all hard TEDs with bottom escape openings. The floats may be attached either outside or inside the net, but not to a flap. Floats attached inside the net must be behind the rear surface of the TED. Floats must be attached with heavy twine or rope. Floats must be constructed of aluminum, hard plastic, expanded polyvinyl chloride, or expanded ethylene vinyl acetate unless otherwise specified. The requirements of this paragraph may be satisfied by compliance with either the dimension requirements of paragraph (a)(9)(i) of this section, or the buoyancy requirements of paragraph (a)(9)(ii) of this section, or the buoyancy-dimension requirements of paragraph (a)(9)(iii) of this section. If roller gear is used pursuant to paragraph (d)(5) of this section, the roller gear must be included in the circum-

ference measurement of the TED or the total weight of the TED.

(i) *Float dimension requirements*. (A) For hard TEDs with a circumference of 120 inches (304.8 cm) or more, a minimum of either one round, aluminum or hard plastic float, no smaller than 9.8 inches (25.0 cm) in diameter, or two expanded polyvinyl chloride or expanded ethylene vinyl acetate floats, each no smaller than 6.75 inches (17.2 cm) in diameter by 8.75 inches (22.2 cm) in length, must be attached.

(B) For hard TEDs with a circumference of less than 120 inches (304.8 cm), a minimum of either one round, aluminum or hard plastic float, no smaller than 9.8 inches (25.0 cm) in diameter, or one expanded polyvinyl chloride or expanded ethylene vinyl acetate float, no smaller than 6.75 inches (17.2 cm) in diameter by 8.75 inches (22.2 cm) in length, must be attached.

(ii) *Float buoyancy requirements*. Floats of any size and in any combination must be attached such that the combined buoyancy of the floats, as marked on the floats, equals or exceeds the weight of the hard TED, as marked on the TED. The buoyancy of the floats and the weight of the TED must be clearly marked on the floats and the TED as follows:

(A) *Float buoyancy markings*. Markings on floats must be made in clearly legible raised or recessed lettering by the original manufacturer. The marking must identify the buoyancy of the float in water, expressed in grams or kilograms, and must include the metric unit of measure. The marking may additionally include the buoyancy in English units. The marking must identify the nominal buoyancy for the manufactured float.

(B) *TED weight markings*. The marking must be made by the original TED manufacturer and must be permanent and clearly legible. The marking must identify the in-air, dry weight of the TED, expressed in grams or kilograms, and must include the metric unit of measure. The marking may additionally include the weight in English units. The marked weight must represent the actual weight of the individual TED as manufactured. Previously manufactured TEDs may be marked upon return to the original

manufacturer. Where a TED is comprised of multiple detachable components, the weight of each component must be separately marked.

(iii) *Buoyancy-dimension requirements.* Floats of any size and in any combination, provided that they are marked pursuant to paragraph (a)(9)(ii)(A) of this section, must be attached such that the combined buoyancy of the floats equals or exceeds the following values:

(A) For floats constructed of aluminum or hard plastic, regardless of the size of the TED grid, the combined buoyancy must equal or exceed 14 lb (6.4 kg);

(B) For floats constructed of expanded polyvinyl chloride or expanded ethylene vinyl acetate, where the circumference of the TED is 120 inches (304.8 cm) or more, the combined buoyancy must equal or exceed 20 lb (9.1 kg); or

(C) For floats constructed of expanded polyvinyl chloride or expanded ethylene vinyl acetate, where the circumference of the TED is less than 120 inches (304.8 cm), the combined buoyancy must equal or exceed 10 lb (4.5 kg).

(b) *Special Hard TEDs.* Special hard TEDs are hard TEDs which do not meet all of the design and construction criteria of the generic standards specified in paragraph (a) of this section. The following special hard TEDs are approved TEDs:

(1) *Flounder TED.* (Figure 10 to this part). The Flounder TED is approved for use only in the Atlantic summer flounder bottom trawl fishery. The Flounder TED is not an approved TED for use by shrimp trawlers. The Flounder TED must be constructed of at least 1¼ inch (3.2 cm) outside diameter aluminum or steel pipe with a wall thickness of at least ⅜ inch (0.3 cm). It must have a rectangular frame with outside dimensions which can be no less than 51 inches (129.5 cm) in length and 32 inches (81.3 cm) in width. It must have at least five vertical deflector bars, with bar spacings of no more than 4 inches (10.2 cm). The vertical bars must be connected to the top of the frame and to a single horizontal bar near the bottom. The horizontal bar must be connected at both ends to

the sides of the frame and parallel to the bottom bar of the frame. There must be a space no larger than 10 inches (25.4 cm) between the horizontal bar and the bottom bar of the frame. One or more additional vertical bars running from the bottom bar to the horizontal bar must divide the opening at the bottom into two or more rectangles, each with a maximum height of 10 inches (25.4 cm) and a maximum width of 14½ inches (36.8 cm). This TED must comply with paragraph (a)(2) of this section. The angle of the deflector bars must be between 30 and 55 from the normal, horizontal flow through the interior of the trawl. The entire width of the escape opening from the trawl must be centered on and immediately forward of the frame at the top of the net when the net is in its deployed position. The escape opening must be at the top of the net and the slope of the deflector bars from forward to aft is upward. The escape opening must be cut horizontally along the same plane as the TED, and may not be cut in a fore-and-aft direction. The cut in the trawl webbing for the escape opening cannot be narrower than the outside width of the grid minus 4 inches (10.2 cm) on both sides of the grid, when measured as a straight line width. The resulting escape opening in the net webbing must measure at least 35 inches (88.9 cm) in horizontal taut length and, simultaneously, 12 inches (30.5 cm) in vertical taut height. The vertical measurement must be taken at the midpoint of the horizontal measurement. This TED may not be configured with a bottom escape opening. Installation of an accelerator funnel is not permitted with this TED.

(2) *Weedless TED.* The weedless TED must meet all the requirements of paragraph (a) of this section for single-grid hard TEDs, with the exception of paragraphs (a)(1) and (a)(5) of this section. The weedless TED must be constructed of at least 1-1/4 inch (3.2 cm) outside diameter aluminum with a wall thickness of at least ⅜ inch (0.3 cm). The deflector bars must run from top to bottom of the TED, as the TED is positioned in the net. The ends of the deflector bars on the side of the frame opposite to the escape opening must be permanently attached to the frame.

The ends of the deflector bars nearest the escape opening are not attached to the frame and must lie entirely forward of the leading edge of the outer frame. The ends of the unattached deflector bars must be no more than 4 inches (10.2 cm) from the frame and may not extend past the frame. A horizontal brace bar to reinforce the deflector bars, constructed of the same size or larger pipe as the deflector bars, must be permanently attached to the frame and the rear face of each of the deflector bars at a position anywhere between the vertical mid-point of the frame and the unattached ends of the deflector bars. The horizontal brace bar may be offset behind the deflector bars, using spacer bars, not to exceed 5 inches (12.7 cm) in length and constructed of the same size or larger pipe as the deflector bars. See Figure 15.

(3) *Boone Big Boy TED*. The Boone Big Boy TED is a single-grid hard TED with a minimum outside horizontal and vertical measurement of 36.5 inches (92.7 cm) and 48 inches (121.9 cm), respectively. The frame must be constructed of steel rod with a minimum outside diameter of  $\frac{3}{8}$  inch (0.95 cm). The deflector bars must be constructed of steel rod with a minimum outside diameter of  $\frac{1}{4}$  inch (0.64 cm). The space between the deflector bars must not exceed 4 inches (10.2 cm). A horizontal brace bar constructed of at least  $\frac{1}{4}$ -inch (0.64-cm) steel rod must be permanently attached to the frame and the rear face of each of the deflector bars within 4 inches (10.2 cm) of the midpoint of the TED frame. The horizontal brace bar may be offset behind the deflector bars, using spacer bars, not to exceed 5 inches (12.7 cm) in length and must be constructed of the same size or larger material as the deflector bars. The Boone Big Boy TED must be used with the Boone Wedge Cut escape opening specified in (a)(7)(ii)(D) of this section. The angle of the deflector bars must be between 30° and 55° from the normal, horizontal flow through the interior of the trawl. The Boone Big Boy TED is exempt from the requirements of paragraph (a)(3)(ii) of this section, and may be installed at 55° when fishing in the Gulf SFSTCA or the Atlantic SFSTCA.

(4) *Modified flounder TED*. (Figure 11 to this part). The modified flounder TED is approved for use only in the Atlantic summer flounder bottom trawl fishery. The modified flounder TED is not an approved TED for use by shrimp trawlers. The modified flounder TED incorporates two separate grid frames that are attached together. The frames of the grids must be constructed of at least  $1\frac{1}{4}$  inch (3.2 cm) outside diameter aluminum or steel pipe with a wall thickness of at least  $\frac{1}{8}$  inch (0.32 cm). Each of the two grids of the modified flounder TED must have outside dimensions of at least 36 inches (91.4 cm) in height and at least 48 inches (121.9 cm) in width. The upper grid is equipped with vertical deflector bars, which must be constructed of aluminum or steel flat bar with a minimum depth of  $1\frac{1}{4}$  inches (3.2 cm) and a minimum thickness of  $\frac{3}{8}$  inch (0.95 cm). Vertical deflector bars must be connected to the top and bottom of the upper grid. The space between the deflector bars of the upper grid must not exceed 4 inches (10.2 cm). The lower grid is fabricated with both horizontal and vertical deflector bars, creating four narrow horizontal openings at the top, and three large rectangular openings along the bottom of the grid. The lower grid must have at least three horizontal deflector bars, constructed of aluminum or steel flat bar with a minimum depth of  $1\frac{1}{2}$  inches (3.8 cm) and a minimum thickness of  $\frac{3}{8}$  inch (0.95 cm), which are connected to each side of the grid and angled at 30° from the horizontal plane. Below this, a fourth horizontal deflector bar must be constructed of aluminum or steel pipe with a wall thickness of at least  $\frac{1}{8}$  inch (0.32 cm) and with a  $1\frac{1}{4}$  inch (3.2 cm) outside diameter. These horizontal deflector bars must yield maximum spacings of  $4\frac{1}{2}$  inches (11.4 cm),  $5\frac{1}{2}$  inches (14.0 cm),  $5\frac{1}{2}$  inches (14.0 cm), and  $4\frac{1}{2}$  inches (11.4 cm), as constructed from top to bottom and measured between the leading edges of adjacent deflector bars. There must be a maximum 10-inch (25.4 cm) space between the bottom-most horizontal deflector pipe bar and the grid frame bottom. Two additional vertical pipe sections running from the bottom of the grid frame to the bottom-most horizontal deflector

pipe bar must divide the opening at the bottom into three rectangles, each with a maximum height of 10 inches (25.4 cm) and a maximum width of 14 inches (35.6 cm). This TED must comply with paragraph (a)(2) of this section. The upper and lower grids of this TED must be laced together with heavy twine no less than  $\frac{1}{4}$  inch (0.64 cm) in diameter in order to maintain a consistent angle in both sections. There may be a gap between the two sections not to exceed 1 inch (2.54 cm). The angle of the entire TED frame must be between 30° and 45° from the normal, horizontal flow through the interior of the trawl. The entire width of the escape opening from the trawl must be centered on and immediately forward of the frame at the top of the net when the net is in its deployed position. The slope of the grids and the vertical deflector bars from forward to aft is upward. The modified flounder TED must use an escape opening consistent with paragraph (a)(7)(ii)(B), (C), (D), or (E) of this section. A webbing flap, as described in paragraphs (d)(3)(ii), (iii), or (iv) of this section, may be used with this escape opening, so long as the minimum opening size is achieved. This TED may not be configured with a bottom escape opening. Installation of an accelerator funnel is not permitted with this TED.

(c) *Soft TEDs.* Soft TEDs are TEDs with deflector panels made from polypropylene or polyethylene netting. The following soft TEDs are approved TEDs:

(1) *Parker TED.* The Parker TED is a soft TED, consisting of a single triangular panel, composed of webbing of two different mesh sizes, that forms a complete barrier inside a trawl and that angles toward an escape opening in the top of the trawl.

(i) *Excluder Panel.* (Figure 5 to this part) The excluder panel of the Parker TED must be constructed of a single triangular piece of 8-inch (20.3 cm) stretched mesh webbing and two trapezoidal pieces of 4-inch (10.2-cm) stretched mesh webbing. The webbing must consist of number 48 (3-mm thick) or larger polypropylene or polyethylene webbing that is heat-set knotted or braided. The leading edge of the 8-inch (20.3-cm) mesh panel must be 36

meshes wide. The 8-inch (20.3-cm) mesh panel must be tapered on each side with all-bar cuts to converge on an apex, such that the length of each side is 36 bars. The leading edges of the 4-inch (10.2-cm) mesh panels must be 8 meshes wide. The edges of the 4-inch (10.2-cm) mesh panels must be cut with all-bar cuts running parallel to each other, such that the length of the inner edge is 72 bars and the length of the outer edge is 89 bars and the resulting fore-and-aft edge is 8 meshes deep. The two 4-inch (10.2-cm) mesh panels must be sewn to the 8-inch (20.3-cm) mesh panel to create a single triangular excluder panel. The 72-bar edge of each 4-inch (10.2-cm) mesh panel must be securely joined with twine to one of the 36-bar edges of the 8-inch (20.3-cm) mesh panel, tied with knots at each knot of the 4-inch (10.2-cm) webbing and at least two wraps of twine around each bar of 4-inch (10.2-cm) mesh and the adjoining bar of the 8-inch (20.3-cm) mesh. The adjoining fore-and-aft edges of the two 4-inch (10.2-cm) mesh panels must be sewn together evenly.

(ii) *Limitations on which trawls may have a Parker TED installed.* The Parker TED must not be installed or used in a two-seam trawl with a tongue, nor in a triple-wing trawl (a trawl with a tongue along the headrope and a second tongue along the footrope). The Parker TED may be installed and used in any other trawl if the taper of the body panels of the trawl does not exceed 4b1p and if it can be properly installed in compliance with paragraph (c)(1)(iii) of this section.

(iii) *Panel installation—(A) Leading edge attachment.* The leading edge of the excluder panel must be attached to the inside of the bottom of the trawl across a straight row of meshes. For a two-seam trawl or a four-seam, tapered-wing trawl, the row of meshes for attachment to the trawl must run the entire width of the bottom body panel, from seam to seam. For a four-seam, straight-wing trawl, the row of meshes for attachment to the trawl must run the entire width of the bottom body panel and half the height of each wing panel of the trawl. Every mesh of the leading edge of the excluder panel must be evenly sewn to this row of meshes; meshes may not be laced to the trawl.

The row of meshes for attachment to the trawl must contain the following number of meshes, depending on the stretched mesh size used in the trawl:

- (1) For a mesh size of  $2\frac{1}{4}$  inches (5.7 cm), 152–168 meshes;
- (2) For a mesh size of  $2\frac{1}{2}$  inches (5.4 cm), 161–178 meshes;
- (3) For a mesh size of 2 inches (5.1 cm), 171–189 meshes;
- (4) For a mesh size of  $1\frac{7}{8}$  inches (4.8 cm), 182–202 meshes;
- (5) For a mesh size of  $1\frac{3}{4}$  inches (4.4 cm), 196–216 meshes;
- (6) For a mesh size of  $1\frac{1}{2}$  inches (4.1 cm), 211–233 meshes;
- (7) For a mesh size of  $1\frac{1}{2}$  inches (3.8 cm), 228–252 meshes;
- (8) For a mesh size of  $1\frac{3}{8}$  inches (3.5 cm), 249–275 meshes; and
- (9) For a mesh size of  $1\frac{1}{4}$  inches (3.2 cm), 274–302 meshes.

(B) *Apex attachment.* The apex of the triangular excluder panel must be attached to the inside of the top body panel of the trawl at the centerline of the trawl. The distance, measured aft along the centerline of the top body panel from the same row of meshes for attachment of the excluder panel to the bottom body panel of the trawl, to the apex attachment point must contain the following number of meshes, depending on the stretched mesh size used in the trawl:

- (1) For a mesh size of  $2\frac{1}{4}$  inches (5.7 cm), 78–83 meshes;
- (2) For a mesh size of  $2\frac{1}{2}$  inches (5.4 cm), 83–88 meshes;
- (3) For a mesh size of 2 inches (5.1 cm), 87–93 meshes;
- (4) For a mesh size of  $1\frac{7}{8}$  inches (4.8 cm), 93–99 meshes;
- (5) For a mesh size of  $1\frac{3}{4}$  inches (4.4 cm), 100–106 meshes;
- (6) For a mesh size of  $1\frac{1}{2}$  inches (4.1 cm), 107–114 meshes;
- (7) For a mesh size of  $1\frac{1}{2}$  inches (3.8 cm), 114–124 meshes;
- (8) For a mesh size of  $1\frac{3}{8}$  inches (3.5 cm), 127–135 meshes; and
- (9) For a mesh size of  $1\frac{1}{4}$  inches (3.2 cm), 137–146 meshes.

(C) *Side attachment.* The sides of the excluder panel must be attached evenly to the inside of the trawl from the outside attachment points of the excluder panel's leading edge to the apex of the excluder panel. Each side must be sewn

with the same sewing sequence, and, if the sides of the excluder panel cross rows of bars in the trawl, the crossings must be distributed evenly over the length of the side attachment.

(iv) *Escape opening.* The escape opening for the Parker soft TED must match one of the following specifications:

(A) *Inshore opening.* This opening is the minimum size opening that may be used in inshore waters, except it may not be used in the inshore waters of Georgia and South Carolina, in which a larger minimum opening is required. A slit at least 56 inches (1.4 m) in taut length must be cut along the centerline of the top body panel of the trawl net immediately forward of the apex of the panel webbing. The slit must not be covered or closed in any manner. The edges and end points of the slit must not be reinforced in any way; for example, by attaching additional rope or webbing or by changing the orientation of the webbing.

(B) *Offshore opening.* A horizontal cut extending from the attachment of one side of the deflector panel to the trawl to the attachment of the other side of the deflector panel to the trawl must be made in a single row of meshes across the top of the trawl and measure at least 96 inches (243.8 cm) in taut width. All trawl webbing above the deflector panel between the 96-inch (243.8-cm) cut and edges of the deflector panel must be removed. A rectangular flap of nylon webbing not larger than 2-inch (5.1-cm) stretched mesh may be sewn to the forward edge of the escape opening. The width of the flap must not be larger than the width of the forward edge of the escape opening. The flap must not extend more than 12 inches (30.5 cm) beyond the rear point of the escape opening. The sides of the flap may be attached to the top of the trawl but must not be attached farther aft than the row of meshes through the rear point of the escape opening. One row of steel chain not larger than  $\frac{1}{4}$  inch (0.64 cm) may be sewn evenly to the back edge of the flap. The stretched length of the chain must not exceed 96 inches (244 cm). A Parker TED using the escape opening described in this paragraph meets the requirements of § 223.206(d)(2)(iv)(B). This opening or



one that is larger must be used in all offshore waters and in the inshore waters of Georgia and South Carolina. It also may be used in other inshore waters..

(2) [Reserved]

(d) *Allowable modifications to hard TEDs and special hard TEDs.* Unless otherwise prohibited in paragraph (b) of this section, only the following modifications may be made to an approved hard TED or an approved special hard TED:

(1) *Floats.* In addition to floats required pursuant to paragraph (a)(9) of this section, floats may be attached to the top one-half of the TED, either outside or inside the net, but not to a flap. Floats attached inside the net must be behind the rear surface at the top of the TED.

(2) *Accelerator funnel.* An accelerator funnel may be installed in the trawl, if it is made of net webbing material with a stretched mesh size of not greater than 1½ inches (4 cm), if it is inserted in the net immediately forward of the TED, and if its rear edge does not extend past the bars of the TED. The trailing edge of the accelerator funnel may be attached to the TED on the side opposite the escape opening if not more than one-third of the circumference of the funnel is attached, and if the inside horizontal opening as described above is maintained. In a bottom opening TED only the top one-third of the circumference of the funnel may be attached to the TED. In a top opening TED only the bottom one-third of the circumference of the funnel may be attached to the TED.

(i) In inshore waters, other than the inshore waters of Georgia and South Carolina in which a larger opening is required, the inside horizontal opening of the accelerator funnel must be at least 44 inches (112 cm).

(ii) In offshore waters and the inshore waters of Georgia and South Carolina, the inside horizontal opening of the accelerator funnel must be at least 71 inches (180 cm).

(3) *Webbing flap.* A webbing flap may be used to cover the escape opening under the following conditions: No device holds it closed or otherwise restricts the opening; it is constructed of webbing with a stretched mesh size no

larger than 2 inches (5.1 cm); it lies on the outside of the trawl; it is attached along its entire forward edge forward of the escape opening; it is not attached on the sides beyond the row of meshes that lies 6 inches (15.2 cm) behind the posterior edge of the grid; the sides of the flap are sewn on the same row of meshes fore and aft; and the flap does not overlap the escape hole cut by more than 5 inches (12.7 cm) on either side.

(i) *44-inch inshore TED flap.* This flap may not extend more than 24 inches (61 cm) beyond the posterior edge of the grid.

(ii) *71-inch TED flap.* The flap must be a 133-inch (338-cm) by 52-inch (132-cm) piece of webbing. The 133-inch (338-cm) edge of the flap is attached to the forward edge of the opening (71-inch (180-cm) edge). The flap may extend no more than 24 inches (61 cm) behind the posterior edge of the grid (Figure 12 to this part illustrates this flap).

(iii) *Double cover TED flap.* This flap must be composed of two equal size rectangular panels of webbing. Each panel must be no less than 58 inches (147.3 cm) wide and may overlap each other no more than 15 inches (38.1 cm). The panels may only be sewn together along the leading edge of the cut. The trailing edge of each panel must not extend more than 24 inches (61 cm) past the posterior edge of the grid (Figure 16 to this part). Each panel may be sewn down the entire length of the outside edge of each panel. This paragraph (d)(3) of this section notwithstanding, this flap may be installed on either the outside or inside of the TED extension. For interior installation, the flap may be sewn to the interior of the TED extension along the leading edge and sides to a point intersecting the TED frame; however, the flap must be sewn to the exterior of the TED extension from the point at which it intersects the TED frame to the trailing edge of the flap. Chafing webbing described in paragraph (d)(4) of this section may not be used with this type of flap.

(iv) *Boone Wedge Cut opening flap.* (Figure 17 to this part). This escape opening flap is attached to the trailing edge of the horizontal cut and the wedge. The flap is made from a piece of

1 $\frac{7}{8}$  inch (4.8 cm) webbing that is trapezoid in shape. The leading edge must be at least 94 meshes wide, stretching to at least 164.5 inches (417.8 cm). The trailing edge is at least 87 meshes wide and at least 152 inches (386.1 cm). The two sides are at least 8 meshes long and at least 15 inches (38.1 cm). The escape opening flap is attached only to the leading edge of the escape opening cut and is not attached along its sides.

(A) *Edge lines.* Optional edge lines can be used in conjunction with this flap. The line must be made of polyethylene with a maximum diameter of  $\frac{3}{8}$  inches (.95 cm). A single length of line must be used for each flap panel. The line must be sewn evenly to the unattached, inside edges and trailing edges, of each flap panel. When edge lines are installed, the outside edge of each flap panel must be attached along the entire length of the flap panel.

(B) [Reserved]

(v) *Small turtle TED flap.* If the angle of the deflector bars of a TED used by a skimmer trawl exceeds 45°, or if a double cover opening straight bar TED (at any allowable angle) is used by a skimmer trawl, the flap must consist of twine size not greater than number 15 (1.32-mm thick) on webbing flaps described in paragraphs (d)(3)(i), (d)(3)(ii), (d)(3)(iii), or (d)(3)(iv) of this section.

(4) *Chafing webbing.* A single piece of nylon webbing, with a twine size no smaller than size 36 (2.46 mm in diameter), may be attached outside of the escape opening webbing flap to prevent chafing on bottom opening TEDs. This webbing may be attached along its leading edge only. This webbing may not extend beyond the trailing edge or sides of the existing escape opening webbing flap, and it must not interfere or otherwise restrict the turtle escape opening.

(5) *Roller gear.* Roller gear may be attached to the bottom of a TED to prevent chafing on the bottom of the TED and the trawl net. When a webbing flap is used in conjunction with roller gear, the webbing flap must be of a length such that no part of the webbing flap can touch or come in contact with any part of the roller gear assembly or the means of attachment of the roller gear assembly to the TED, when the trawl net is in its normal, horizontal posi-

tion. Roller gear must be constructed according to one of the following design criteria:

(i) A single roller consisting of hard plastic shall be mounted on an axle rod, so that the roller can roll freely about the axle. The maximum diameter of the roller shall be 6 inches (15.24 cm), and the maximum width of the axle rod shall be 12 inches (30.4 cm). The axle rod must be attached to the TED by two support rods. The maximum clearance between the roller and the TED shall not exceed 1 inch (2.5 cm) at the center of the roller. The support rods and axle rod must be made from solid steel or solid aluminum rod no larger than  $\frac{1}{2}$  inch (1.28 cm) in diameter. The attachment of the support rods to the TED shall be such that there are no protrusions (lips, sharp edges, burrs, etc.) on the front face of the grid. The axle rod and support rods must lie entirely behind the plane of the face of the TED grid.

(ii) A single roller consisting of hard plastic tubing shall be tightly tied to the back face of the TED grid with rope or heavy twine passed through the center of the roller tubing. The roller shall lie flush against the TED. The maximum outside diameter of the roller shall be 3 $\frac{1}{2}$  inches (8.0 cm), the minimum outside diameter of the roller shall be 2 inches (5.1 cm), and the maximum length of the roller shall be 12 inches (30.4 cm). The roller must lie entirely behind the plane of the face of the grid.

(6) *Water deflector fin for hooped hard TEDs.* On a hooped hard TED, a water deflector fin may be welded to the forward edge of the escape opening. The fin must be constructed of a flat aluminum bar, up to  $\frac{3}{8}$  inch (0.95 cm) thick and up to 4 inches (10.2 cm) deep. The fin may be as wide as the width of the escape opening, minus 1 inch (2.5 cm). The fin must project aft into the TED with an angle between 5° and 45° from the normal, horizontal plane of the trawl. On an inshore hooped hard TED, the clearance between the deflector bars and the posterior edge of the deflector fin must be at least 20 inches (51 cm). On an offshore hooped hard TED, the clearance between the deflector bars and the posterior edge of the

deflector fin must be at least 23-1/4 inches (59 cm).

(7) *Hinged door frame for hooped hard TEDs.* A hinged door frame may be attached to the forward edge of the escape opening on a hooped hard TED. The door frame must be constructed of materials specified at paragraphs (a)(1)(i) or (a)(1)(ii) of this section for inshore and offshore hooped hard TEDs, respectively. The door frame may be covered with a single panel of mesh webbing that is taut and securely attached with twine to the perimeter of the door frame, with a mesh size not greater than that used for the TED extension webbing. The door frame must be at least as wide as the TED escape opening. The door frame may be a maximum of 24 inches (61 cm) long. The door frame must be connected to the forward edge of the escape opening by a hinge device that allows the door to open outwards freely. The posterior edge of the door frame, in the closed position, must lie at least 12 inches (30 cm) forward of the posterior edge of the escape opening. A water deflector fin may be welded to the posterior edge of the hinged door frame. The fin must be constructed of a flat aluminum bar, up to 3/8 inch (0.95 cm) thick and up to four inches (10.2 cm) deep. The fin may be as wide as the width of the escape opening, minus one inch (2.5 cm). The fin must project aft into the TED with an angle between 5° and 45° from the normal, horizontal plane of the trawl, when the door is in the closed position. The clearance between the posterior edge of the escape opening and the posterior edge of the door frame or the posterior edge of the water deflector fin, if installed, must be no less than 12 inches (30 cm), when the door is in the closed position. Two stopper ropes or a hinge limiter may be used to limit the maximum opening height of the hinged door frame, as long as they do not obstruct the escape opening in any way or restrict the free movement of the door to its fully open position. When the door is in its fully open position, the minimum clearance between any part of the deflector bars and any part of the door, including a water deflector fin if installed, must be at least 20 inches (51 cm) for an inshore hooped hard TED and at least 23 1/4 inches (59

cm) for an offshore hooped hard TED. The hinged door frame may not be used in combination with a webbing flap specified at paragraph (d)(3) of this section or with a water deflection fin specified at paragraph (d)(6) of this section.

(8) *Chauvin shrimp deflector.* (Figures 19a and 19b to this part). The Chauvin shrimp deflector may be used on any approved TED design, but its installation must not reduce the minimum stretched measurements of the TED opening. The Chauvin shrimp deflector may not be installed with a bottom escape opening. The Chauvin shrimp deflector is constructed from a single piece of 3-inch (7.6-cm) inside diameter PVC pipe which measures 30 inches (76.2 cm) in length; the ends of the PVC pipe are left uncapped. A webbing or mesh bag is made and is used to encase the PVC pipe (Figure 19a to this part). The mesh bag is created using a single piece of 1 1/2 inch (4.1 cm) stretched-mesh webbing made of nylon or polyethylene with dimensions 57 meshes wide by 10 meshes deep. The leading edge of the 57-mesh piece of webbing is attached around the PVC pipe and back to the row of meshes located 7 meshes down the 10-mesh length. The ends of the webbing are sewn together on each end forming a webbing bag to assure the PVC pipe remains encased in the webbing. This leaves a 3-mesh tail hanging from the encased PVC pipe. The 3-mesh tail of the encased PVC pipe is then sewn to a single row of meshes on the inside of the trawl along the 57-mesh edge, 3 meshes ahead of the forward cut of the TED escape opening. This would allow a 3-mesh overlap to the left and right of the forward cut (Figure 19b to this part).

(9) *Brace bar.* (Figure 14a of this part). A horizontal brace bar may be added to a TED if the brace bar is constructed of aluminum or steel rod or tubing specified in 50 CFR 223.207(a)(1)(i)(A) through (C), or flat bar 3/8-inch (0.95 cm) or more in thickness, and is permanently attached to the rear of the outer frame; for TEDs constructed of flat bar less than 3/8-inch (0.95 cm) in thickness, the regulations specified in 50 CFR 223.207(a)(1)(i)(D) apply. The horizontal brace bar may be permanently secured to the rear face of each of the deflector bars. The horizontal

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brace bar may be offset behind the deflector bars, using spacer bars attached to the rear face of each of the deflector bars, not to exceed 5 inches (12.7 cm) in length, and must be constructed of the same size or larger material as the deflector bars.

(e) *Revision of generic design criteria, and approval of TEDs, of allowable modifications of hard TEDs, and of special hard TEDs.* (1) The Assistant Administrator may revise the generic design criteria for hard TEDs set forth in paragraph (a) of this section, may approve special hard TEDs in addition to those listed in paragraph (b) of this section, may approve allowable modifications to hard TEDs in addition to those authorized in paragraph (d) of this section, or may approve other TEDs, by regulatory amendment, if, according to a NMFS-approved scientific protocol, the TED demonstrates a sea turtle exclusion rate of 97 percent or greater (or an equivalent exclusion rate). Two such protocols have been published by NMFS (52 FR 24262, June 29, 1987; and 55 FR 41092, October 9, 1990) and will be used only for testing relating to hard TED designs. Testing under any protocol must be conducted under the supervision of the Assistant Administrator, and shall be subject to all such conditions and restrictions as the Assistant Administrator deems appropriate. Any person wishing to participate in such testing should contact the Director, Southeast Fisheries Science Center, NMFS, 75 Virginia Beach Dr., Miami, FL 33149-1003.

(2) Upon application, the Assistant Administrator may issue permits, subject to such conditions and restrictions as the Assistant Administrator deems appropriate, authorizing public or private experimentation aimed at improving shrimp retention efficiency of existing approved TEDs and at developing additional TEDs, or conducting fishery research, that would otherwise be subject to § 223.206(d)(2). Applications should be made to the Southeast Regional Administrator (see § 222.102

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definition of “Southeast Regional Administrator”).

[64 FR 14073, Mar. 23, 1999, as amended at 64 FR 55438, Oct. 13, 1999; 66 FR 1603, Jan. 9, 2001; 66 FR 24288, May 14, 2001; 68 FR 8467, Feb. 21, 2003; 68 FR 51514, Aug. 27, 2003; 68 FR 54934, Sept. 19, 2003; 69 FR 31037, June 2, 2004; 77 FR 29907, May 21, 2012; 77 FR 48106, Aug. 13, 2012; 84 FR 70063, Dec. 20, 2019; 85 FR 59199, Sept. 21, 2020; 86 FR 16676, Mar. 31, 2021]

EFFECTIVE DATE NOTE: At 64 FR 14073, Mar. 23, 1999, § 223.207 was added. Paragraphs (a)(9)(ii) (A) and (B) contain information collection and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

### § 223.208 Corals.

(a) *Prohibitions.* (1) The prohibitions of section 9(a)(1) of the ESA (16 U.S.C. 1538(a)(1)) relating to endangered species apply to elkhorn (*Acropora palmata*) and staghorn (*A. cervicornis*) corals listed as threatened in § 223.102, except as provided in § 223.208(c).

(2) It is unlawful for any person subject to the jurisdiction of the United States to do any of the following:

(i) Fail to comply immediately, in the manner specified at § 600.730 (b) through (d) of this title, with instructions and signals specified therein issued by an authorized officer, including instructions and signals to haul back a net for inspection;

(ii) Refuse to allow an authorized officer to board a vessel, or to enter an area where fish or wildlife may be found, for the purpose of conducting a boarding, search, inspection, seizure, investigation, or arrest in connection with enforcement of this section;

(iii) Destroy, stave, damage, or dispose of in any manner, fish or wildlife, gear, cargo, or any other matter after a communication or signal from an authorized officer, or upon the approach of such an officer or of an enforcement vessel or aircraft, before the officer has an opportunity to inspect same, or in contravention of directions from the officer;

(iv) Assault, resist, oppose, impede, intimidate, threaten, obstruct, delay, prevent, or interfere with an authorized officer in the conduct of any boarding, search, inspection, seizure, investigation, or arrest in connection with enforcement of this section;