

## GLOSSARY OF BRIDGE TERMS

1. **Abutment:** A substructure composed of stone, concrete, brick or timber supporting the ends of a single span bridge or the extreme end of a multi-span bridge. Usually it also supports the approach embankment.
2. **Advance Approval Waterways:** (Title 33, Code of Federal Regulations, Section 115.70, as amended): The Commandant, U.S. Coast Guard has given advance approval to the location and plans of bridges to be constructed across reaches of waterways navigable-in-law, but not actually navigated other than by logs, log rafts, rowboats, canoes and small motorboats. In such cases, the clearances provided for high water stages will be considered adequate to meet the reasonable needs of navigation. The term “small motorboats” shall be interpreted in light of the things and conditions with which it is associated. The term means rowboats, canoes, and other similar craft with outboard motors. It does not include sailing or cabin cruiser craft. The term is used to distinguish such craft from the definition of “motorboat” in the Motorboat Act of June 25, 1940 (46 U.S.C. 526), which includes craft up to 65 feet in length.
3. **Allision:** For Bridge Program terms, the violent impact of a movable object (vessel) striking a stationary object (bridge or/and bridge protective system).
4. **Alteration:** For Bridge Program terms, the structural changes, replacement, or removal of the bridge.
5. **Alteration of Bridge:** Any repairs, relocation, reconstruction, additions, or modifications to a bridge, which will change any of the information shown on the plans (permit drawings) attached to the Federal Bridge Permit is considered an alteration of the bridge and requires prior approval of the Coast Guard.
6. **“After-the-fact Permit”:** A permit designation for a bridge that is completed.
7. **Amendment:** For Bridge Program terms, a Coast Guard document that amends original bridge permit and is signed by District Commander or Administrator, Bridge Program.
8. **Approval Date:** The date of final agency action when the permit is signed by the approving official, the date the permit is issued. Each page of the permit text and attached plan set is stamped with the approval date and shows the permit number.
9. **APA:** The Administrative Procedure Act (APA) in 1946 established the basic framework of administrative law governing agency action, including rulemaking.
10. **Approval plan set:** Approved plans consecutively numbered as a set, part of the permit.
11. **Approved:** The term “approved” means approved by the Commandant unless otherwise stated.

12. **Appurtenance:** For Bridge Program terms, means an attachment or accessory to a bridge or vessel. Appurtenances on a bridge include the bridge protective system, clearance gauges, lighting, etc. An appurtenance on a vessel extends beyond the hull or superstructure, is not an integral part of the vessel and is not needed for a vessel's piloting, propelling, controlling, or collision avoidance capabilities.
13. **Automated Drawbridge:** For Bridge Program terms, means a drawbridge that is operated by an automated mechanism, not a drawtender. An automated drawbridge is normally kept in the open-to-navigation position and closes when the mechanism is activated.
14. **Axis of the Channel:** An imaginary line representing the usual line of travel by a vessel through a bridge, usually the center marked by an arrangement of two green 360-degree lights suspended just below the outermost edges of the upstream and downstream bottom chords.
15. **Bank Cushion:** The distance or amount of space between a channel bank and a vessel considered necessary to minimize risk of vessel grounding as a result of bank suction.
16. **Bank Suction:** The tendency to force a ship bodily in a transverse direction (sway force) when running close to a channel bank. Usually the ship will tend to move toward a channel bank; thus the force is called bank suction.
17. **Bascule Bridge:** A bridge superstructure on which one or two movable roadway spans are counterbalanced by weights and raised from a horizontal position to almost vertical (open) position for the passage of river traffic.
18. **Base Flood:** A flood having a one percent change of being exceeded in any given year (commonly known as a 100-year flood).
19. **Base Floodplain:** The area adjacent to the waterway, which would be inundated by a base flood.
20. **Beam:** One of three principal dimensions of a ship; the width of a vessel in a transverse direction at its widest point, usually amidships.
21. **Bend:** A channel turn that is designed as a continuous curve with a given radius; usually provided for large channel changes (or turn angles) in direction. However, for bridge permit purposes, any bends in the waterway within one-half mile of the proposed bridge are documented regardless of the radius of the curve or size of the channel.
22. **Bent:** A supporting unit of a trestle or a viaduct type structure. A "bent" consists of two or more columns or column-like members connected at their topmost ends by a cap, strut, or other member holding them in their correct position.
23. **Body:** A series of paragraphs in the bridge permit document which identify the applicant, the work proposed and the work approved. The body precedes the conditions.

24. **Bow:** The forward part of a ship or vessel; generally the forward 10 percent of the length of the ship hull where most of the hull curvature (flare) is located.
25. **Bow and Stern Thrusters:** Independent propulsion units integrated into the hull of a vessel or attached to barges being transported that help control the direction and alignment of a vessel or tow.
26. **Bowboat:** A small towboat or “tug” engaged to help a large tow to maneuver, usually by pushing or pulling on the head or “bow” of the tow.
27. **Bridge:** Any structure over, on, or in navigable waters of the United States used for transporting persons, vehicles, commodities or other physical matter and providing for the passage or flow of water through or under the structure.
- a. The term “bridge” includes all integral bridge elements: approaches and appurtenances, regardless of the materials used, whether natural or manufactured, or the construction methodology.
  - b. Types of “bridges” include: highway bridges, railroad bridges, pedestrian bridges, aqueducts, aerial tramways and conveyors, overhead pipelines, and similar structures of the same function with their approaches, bridge protective systems, foundations, and appurtenances (integral features).
  - c. The definition of “bridges” does not include: aerial power transmission lines, submerged pipelines, and other similar structures and works unless they are integral features of a bridge used in its construction, maintenance, operation or removal; or they are affixed to the bridge and affect the bridge clearances.
28. **Bridge Permit:** An authorization issued by the Coast Guard, approving the location and plans of a bridge across a navigable waterway of the United States. A “bridge permit” includes the approved bridge project plans.
- a. A “bridge permit” expresses the assent of the Federal Government as far as the project affects the public right of navigation, giving due consideration to the impacts on the quality of the human environment.
  - b. A “bridge permit” does not give any property rights, in either real estate or materials, or authorize any injury to private property or invasion of private rights. It does not remove the necessity of obtaining the assent of other agencies with cognizance of any aspect of the location, construction, or maintenance of a bridge.
  - c. Permits for completed bridges remain valid indefinitely, unless otherwise conditioned or amended, as long as the bridge remains in place, continues to be used for transportation purposes, and conforms to the original approved plans.
29. **Bridge Protective System:** Protective structures provided on a bridge to fully or partially absorb the vessel collision impact forces, or redirect the aberrant vessel away from the pier.

The protective structures may be located directly on the bridge such as bridge pier fenders, or independent of the bridge such as dolphins. General types of bridge protective systems include fenders, pile clusters, dolphins, sheer booms, sheer fences, island protection systems, and floating protection systems.

30. **Canalized Channel:** A channel consisting of one or more canals; an excavated watercourse, usually artificially cut through land area, without any existing channel, designed for navigation. Canal edges or borders usually extend above the water surface with visible banks and have important ship and bank interaction effects.
31. **Categorically Excluded Federal Action:** Certain Bridge Permit actions under consideration by the Coast Guard are categorically excluded from meeting the requirements of the National Environmental Policy Act (NEPA) of 1969. Projects and permit actions classified as categorical exclusions are not subject to Section 102(2)(C) of NEPA. Although not subject to NEPA, categorically excluded actions are reviewed for compliance with the other environmental protection laws, and may require preparation of an environmental assessment.
32. **Causeway:** A raised road of solid fill across water or marshland, constructed so that the water or marshland is on both sides of the road and there are no openings for navigation or water transfer.
  - a. A raised road with any openings is a “bridge” with solid fill approaches, not a “causeway.”
  - b. Congressional approval is required before the Coast Guard may approve a “causeway.”
33. **Channel:** The deeper, navigable portion of a waterway, usually marked and designated on the appropriate navigation chart with known widths and depths.
34. **Channel Limit:** The location of the authorized channel as designated on project design documents and depicted on hydrographic survey sheets; often provided as a channel width on navigation charts.
35. **Clearance Gauges:** A series of markings painted on or attached to bridge piers to indicate the vertical clearance available beneath the navigation span between “low steel” and various water levels. They may also be authorized electronic displays serving the same purpose.
36. **Closed:** For Bridge Program terms, means that the drawspan is not in the open position. Vessels, which can pass beneath the “closed” drawspan, are free to proceed.
37. **Coast Guard District Commander or District Commander:** The term "Coast Guard District Commander" or "District Commander" means an officer of the Coast Guard designated as such by the Commandant to command all Coast Guard activities within his or her district.
38. **Cofferdam:** An open box-like structure surrounding the area where an abutment, pier, retaining wall, or other structure will be placed. Water is removed from the enclosure so the

excavation for preparing a foundation and the abutment, pier, or other construction may be done in the open air.

39. **Commencement of Construction:** The date when work actually starts at the proposed bridge site, its approaches, or ancillary works is the commencement of construction.
40. **Completion of Construction** (as defined in completion reports): The Coast Guard considers construction completed when removal of falsework and removal of existing bridge is completed, the construction contract is completed, required navigation lights and clearance gauges have been installed, and the bridge has been opened to traffic or placed in operation.
41. **Completion Report:** CG-4599 Form documenting official pertinent facts of a bridge.
42. **Concave Bank:** The bank of a meandering stream curved like the inner surface of a ball.
43. **Condition:** A specific provision placed in the permit. Conditions are numbered as a set of permit provisions to which the permittee is required to adhere as part of Coast Guard approval.
44. **Controllability:** A subjective term used to describe the apparent adequacy of response to ship control by the mariner; the inherent quality of a ship to stay on track.
45. **Crosscurrent:** The magnitude of the tidal or river current component perpendicular to the channel centerline or intended ship track.
46. **Current:** A generic term referring to the horizontal movement of water caused by various forces such as river currents or tidal currents.
47. **Datum Plane:** Reference to a specified tidal datum, usually in reference to Mean Sea Level (MSL).
48. **Deep Draft Waterway:** Navigation channels (usually excavated as by dredging) provided for the movement of self-propelled vessels with drafts greater than 15 feet.
49. **Demolition Plan:** The start-to-finish plan expected to be followed to remove a bridge or any portion of a bridge. The demolition plan must include text and drawings (plans) submitted to the Coast Guard District Commander (Bridge Office) for review and coordination prior to commencement of work. It should include a step-by-step description of the work and the expected times for commencing and completing each step.
50. **Descending Bank:** A generic term referring to the banks along a river with a flowing current; often referred to as left or right descending banks as seen by an observer looking downstream.
51. **Design-Build:** Allows for a bridge permit to be issued prior to final bridge design selection. Bridge permits can accommodate the design-build concept by allowing the bridge owner to obtain bids and select a design-build contractor while assuring the Coast Guard will get a set

of final design plans which provide navigational clearances approved by the permit. Conceptual plans must be submitted with the permit application which clearly defines the navigational clearances to be provided at final design and with respect to channels located at the bridge location. There must be no deviation between conceptual design plans and final design plans which would materially affect navigation.

52. **Design Vessel (Ship):** A real or hypothetical ship with dimensions of the largest vessel that a navigation project is designed to accommodate. The design vessel size for critical bridges shall be determined such that the annual number of vessel passages that involved vessels larger than the design vessel amounts to a maximum of 50 vessel passages, or five percent of the total number of merchant vessels per year which could impact the bridge element, whichever is smaller. The design vessel size for regular bridges shall be determined such that the annual number of vessel passages that involve vessels larger than the design vessel amounts to a maximum of 200 vessel passages or ten percent of the total number of merchant vessels per year which could impact the bridge element, whichever is smaller.
53. **Deviation:** For Bridge Program terms, means a District Commander's action authorizing a drawbridge owner to temporarily not comply with the drawbridge opening requirements in 33 CFR Part 117. A temporary change to the operating schedule of a drawbridge lasting less than or equal to 180 days; bridge owners must receive permission before commencement of a deviation.
54. **Docket:** A docket contains the administrative record of a rulemaking. The docket file includes each regulatory document published in the rulemaking, all public comments received on the notice of proposed rulemaking (NPRM), documentation of all public contacts resulting in comments on the merits of the NPRM, the evaluations required by the Department of Homeland Security, Executive Orders, or statute, an environmental assessment, and any relevant studies and materials considered in the rulemaking. The docket must be available for public inspection and copying during normal business hours.
55. **Docket Number:** Each rulemaking must have its own docket number. All Coast Guard rulemakings are assigned unique docket numbers provided via the Federal Docket Management System (FDMS). Docket numbers are obtained through the Coast Guard Office of Regulations in this format: Example USCG-2011-1234
56. **Dolphin:** A stand-alone unit placed upstream or downstream of a substructure element to protect portions of bridge exposed to possible damage from impacts by floating debris or vessels. Smaller dolphins are comprised of a cluster of piles drawn together with wire rope while larger dolphins are typically fixed together using concrete capping or a structural steel frame.
57. **Disclaimer Condition:** A standard condition in the permit alerting the permittee to his possible obligations to other agencies.
58. **Drawbridge:** For Bridge Program terms, means a bridge with an operational span that is intended to be opened for the passage of waterway traffic.

59. **Drawbridge Operation:** Drawbridges must open on signal unless otherwise specified in 33 CFR Part 117 subpart B.

60. **Drawbridge Types:**

- a. **Double-leaf Bascule:** The drawspan opens in an arc from the horizontal to the near vertical from both sides of the bridge.
- b. **Pontoon:** A floating bridge, using "pontoons" (i.e., flat-bottomed boats or portable floats) for support that has a movable span for allowing vessels to pass through.
- c. **Retractable:** The drawspan is drawn horizontally back into the bridge.
- d. **Single-leaf Bascule:** The drawspan opens in an arc from the horizontal to the near vertical from one side of the bridge.
- e. **Swing:** The drawspan opens by rotating horizontally on a central axis (i.e., a pivot pier) so it is in line with the channel.
- f. **Vertical Lift:** The drawspan opens by being lifted vertically.

61. **Drawspan:** For Bridge Program terms, means the operational span of a drawbridge.

62. **Drift:** A bank or pile of flotsam/jetsam heaped up by currents of water resulting in damming.

63. **Ebb Current:** The tidal current away from shore and toward the sea; usually downstream in a tidal stream and associated with a decrease in tide height.

64. **Elevation (geographical):** Height above Mean Sea Level (MSL).

65. **Encroachment:** Bridge construction or modification where any part of a bridge structure or approach roadway is located in the floodplain. An "encroachment" does not exist in replacement projects when only the piers, pilings, or pile bents are in the floodplain.

66. **Environmental Assessment:** An analysis of the environmental impacts of a proposed activity that identifies the type, degree of effect, and probability of occurrence respecting primary, secondary and cumulative potential impacts (positive and negative) of that action, including alternative courses of action and if possible mitigative measures to minimize adverse impacts. Environmental assessments in support of application for bridge permits should be prepared following the guidelines in the Bridge Permit Application Guide.

67. **Erection Scheme:** The start-to-finish plan expected to be followed to erect a bridge or any portion of a bridge. The erection scheme should accompany falsework plans submitted to the Coast Guard District Commander for approval prior to commencement of work. It should include a step-by-step description of the work and the expected times for commencing and completing each step.

68. **Existing Bridge:** Bridge currently located at the site.
69. **Existing to-be-modified bridge:** The structure at the bridge site which is to be altered under the proposed permit action.
70. **Existing to-be-replaced bridge:** The structure at the bridge site which is to be removed as part of the new bridge construction.
71. **Extension of Time:** For Bridge Program terms, a Coast Guard document that grants additional time to commence and/or complete a bridge project.
72. **Falsework:** Any temporary structure that facilitates the construction, modification, or removal of a bridge. Types of “falsework” include: work platforms, temporary bents, erection towers, and cofferdams.
73. **FDMS:** Federal Docket Management System (FDMS) offers a single computerized, easily accessible location where all documents associated with a rulemaking are open to the public.
74. **Federal Register:** The Federal Register is a Government Printing Office document that contains a daily listing of all federal agency rulemakings and notices. Publication in the Federal Register provides constructive legal notice.
75. **Fender:** A protective structure that usually consists of timber, rubber, steel or concrete elements placed on or around a pier or abutment face as a buffer to fully or partially protect portions of bridge exposed to possible damages from impacts by floating debris or vessels. A fender may be supported by the pier it is intended to protect, or it may be independently supported.
76. **Final Rule:** The basic rulemaking document used to make a permanent change to the Code of Federal Regulations.
77. **Fixed Bridge:** For Bridge Program terms, a stationary structure across a waterway.
78. **Flanking:** The maneuvering action of a downbound tow (towboat and barges) sometimes used when approaching bridge, locks, or sharp bends. The current only is used for headway and the engines and rudders are used to maintain the proper angle until just before the lead barge reaches the bridge span, at which time the engines are backed and the head of the tow is swung gently in line with the opening. Then power is applied to drive through the opening. This is the safest way a heavy tow can make tight passages. Flanking often increases the transit time through a bridge.
79. **Floating Protection System:** It is usually consisted of cable net system suspended across the waterway or floating pontoon anchored in front of the pier to engage and capture the bow of an aberrant vessel. Usually this system is considered only for extremely deep water situations where other protective systems are not practicable.

80. **Flood Current:** The tidal current toward shore or up a tidal stream; usually associated with an increase in tide height.
81. **FOIA:** Freedom of Information Act (FOIA). Enacted in 1966, FOIA generally provides that any person has a right, enforceable in court, to obtain access to federal agency records (exceptions apply).
82. **Guide Clearances:** Guide clearances have been established for bridges over certain waterways. Guide clearances are the minimum acceptable clearances for bridges over a waterway or a reach of a waterway.
83. **High Water (HW):** The maximum height reached by a rising tide.
84. **Intended Strike:** Incidence where a vessel calls a bridge and requests and receives permission to land on the bridge or its protection system. Such strikes are used to “guide” or “assist” a vessel or barge through a narrow bridge opening. Since these “Intended Strikes” do little to no damage, they do not meet the level of a reportable marine casualty.
85. **Island Protection System:** A protective island built around a bridge pier; typically a sand or quarry-run rock core protected by outer layers of heavy rock riprap for wave, current, and ice protection. The island geometry is developed to stop an aberrant vessel from hitting a pier by forcing it to run ground.
86. **Lead Federal Agency (LFA):** The federal agency with the primary responsibility to prepare the NEPA document.
87. **Local Notice to Mariners:** A weekly notice issued by each Coast Guard District to distribute important information affecting navigational safety within the district. The “Local Notice to Mariners” (LNM) reports changes to and deficiencies in aids to navigation maintained by and under the authority of the Coast Guard.
88. **Low Member (Low Steel, Low Chord):** That point on a bridge which is the lowest part of the superstructure.
89. **Lowerable:** For Bridge Program terms, means a non-structural vessel appurtenance that is or can be made flexible, hinged, collapsible, or telescopic so that it can be mechanically or manually lowered.
90. **Maneuverability:** The ability of a ship to change course or to move off track while underway by the application of steering and engine controllers.
91. **Maintenance of Traffic (MOT) Plan:** A MOT plan developed in support of a transportation project; may include highway, rail and waterway traffic alternatives to be employed while building a road or bridge project.
92. **Margin of Channel:** The outside limits of a channel when it does not extend from pier to pier because of the depth of the water or structural impediments. The margin(s) of channel

beneath a bridge span are usually marked with red lights suspended just below the outermost edge of the bridge span structure.

93. **Marine Information for Safety and Law Enforcement (MISLE):** An electronic data system established in December 2001 into which all pertinent information and activities associated with each bridge is located. MISLE is also utilized to capture activities for many other Coast Guard missions.
94. **Marine Navigational Lighting:** The lights maintained on a bridge for the protection of marine navigation.
95. **Mean High Water (MHW):** The average of the height of the diurnal high waters at a particular location measured over a lunar cycle of 19 years.
96. **Mean Low Water (MLW):** The average of the height of diurnal low waters at a location measured over a lunar cycle of 19 years.
97. **Mean Sea Level (MSL):** The average height of the sea surface for all tide stages over a 19-year period. The datum for topographic maps and most land elevation references.
98. **Meandering Stream:** A stream that follows a turning and winding course.
99. **Milepoint:** Bridge location by reference to milepoint on the waterway, usually calculated from the mouth of the waterway and expressed in statute miles (not nautical miles) and metric equivalent in kilometers. See also item j, Figure 4-1, Form CG-4599, Bridge Completion Report instructions.
100. **Modification:** A bridge is modified when the configuration of the existing bridge is changed by adding new parts or replacing some parts of the existing bridge, and some parts of the existing bridge remain intact.
101. **Modifications to the Bridge:** Deviations from the approved bridge location or plans that require a new or amended bridge permit. This requirement applies to “modifications” required both before and after the bridge is constructed.
102. **Movable Bridge:** A structure across a waterway that through manual or electronic means can ‘open’ deck to allow for passage of vessels requiring greater vertical clearance than in the closed position.
103. **Navigability Determination:** For Bridge Program terms, means an examination of the attributes and location of a waterway to determine whether it is navigable (generally through the district legal officer).
104. **Nautical Mile:** A distance of 6,076 feet, or 1.85197 kilometers.
105. **Navigable Waters of the United States:** For Bridge Program purposes: waters subject to tidal influence, waterways with a history of substantial commercial navigation, waterways

that presently have commercial navigation, or waterways susceptible to commercial development.

106. **Navigation:** The theory and practice of operating vessels, usually commercial vessels, in water bodies, charting the course for a ship movement.
107. **Navigation Traffic Pattern:** The use of established channels by vessels in one-way and two-way traffic patterns, including, but not limited to, the use of traffic separation schemes.
108. **Navigational Lighting:** The lights installed and maintained on a bridge by the owner as private aids to navigation. If lighting is required, the Coast Guard District Commander must approve “navigational lighting” prior to the construction of a bridge.
109. **New Permanent Bridge:** A newly constructed bridge which is to remain at a site where a temporary bridge is constructed as part of the bridge project.
110. **Nonstructural:** For Bridge Program terms, means that the item is not rigidly fixed to the vessel and can be relocated or altered.
111. **Notices to Mariners:** Coast Guard District Offices issue Notices to Mariners as circumstances prescribe. These notices include information about changes or deficiencies in aids to navigation, deficiencies in bridge navigation lights, notices of work in progress in the waterway and cautionary information. Written notices, called Local Notices to Mariners, are published weekly or as circumstances require. Broadcast notices are made when immediate dissemination of marine information is necessary for the safety of navigation. Broadcast Notices to Mariners are broadcast over Coast Guard radio stations. Broadcast notices are later confirmed by repetition in published Local Notices to Mariners when the original subject is still valid.
112. **Not Essential to Navigation:** For Bridge Program terms, means that a nonstructural vessel appurtenance, when in the lowered position, would not adversely affect the vessel’s piloting, propulsion, control, or collision-avoidance capabilities.
113. **Normal Pool Elevation:** Height in feet above sea level at which a section of the river is normally maintained behind a dam.
114. **NPRM:** Notice of Proposed Rulemaking (NPRM) is usually the first Federal Register publication in the rulemaking process. This document provides public notice that a change is being proposed and it requests public comment on the proposal. The NPRM does not change the operating schedule of the bridge or the regulations contained in the CFR.
115. **Open River:** Any river or reach of a river having no obstructions, such as dams.
116. **Open River Conditions:** Certain rivers are impounded by movable dams with wickets. When the river stage is high enough for traffic to clear the dam, the wickets are lowered for the passage of river traffic over the dam bypassing the lock and the river is said to be in “open river conditions.”

117. **Order to Alter (OTA):** Authorization signed by the Commandant if a bridge is eligible for funding under the Truman-Hobbs (T-H) Act. The OTA specifies the navigational clearance alterations required to meet the reasonable needs of navigation. The OTA amends the 'Bridge Permit' document. If the bridge in question is not eligible for T-H funding, the OTA, signed by the Administrator, Bridge Program, will specify the navigational clearance alterations required to meet the reasonable needs of navigation and will prescribe a reasonable time to accomplish them.
118. **Pier:** A structure composed of stone, concrete, brick, steel, or wood built in shaft or block-like form to support the ends of the spans of a multi-span superstructure at an intermediate location between its abutments.
119. **Pile:** A rod or shaft-like linear member of timber, steel, concrete, or composite materials driven into the earth to carry structure loads through weak soil strata to soil strata capable of supporting such loads.
120. **Pivot Point:** The point about which a ship actually turns. The pivot point varies as the ship is maneuvered and depends on all forces and movements acting on the ship.
121. **Preamble:** A series of paragraphs in the bridge permit document which states its purpose and authorizations, and introductory information. The preamble precedes the permit body.
122. **Proposed Bridge:** The permitted bridge as identified in a permit action. Use "proposed permanent bridge" when a temporary bridge is included in the permit action.
123. **Protection Cell:** A steel sheet-piling cell, usually round and filled with stone, sand, or concrete, that is part of the bridge protective system. The cell is strategically located to protect a bridge.
124. **Public Notice:** Coast Guard District published document advising the public of proposed bridge projects, environmental or regulatory actions. Mailing lists of public notices are distributed by watershed and geographic locations.
125. **Public Vessel:** For Bridge Program terms, means a vessel that is owned and operated by the United States Government or a government of a foreign country and is not engaged in commercial service, as defined in 46 U.S.C. 2101.
126. **Riprap:** Brick bats, stones, concrete blocks, or other protective covering material deposited on river and stream beds and banks, or lake, tidal or other shores to prevent erosion and scour.
127. **RIN:** Regulatory Identification Number (RIN). Generally each individual rule needs a unique RIN. However, because the Coast Guard publishes so many of the same types of rules every year, GSA and OMB's Office of Information and Regulatory Affairs have designated certain categories of rules as "routine and frequent" and assigned permanent RINs for them. The permanent RIN for 33 CFR Part 117 (Bridges) is 1625-AA09.

128. **Remotely Operated drawbridge:** For Bridge Program terms, means a drawbridge that is operated by remote control from a location away from the drawbridge.
129. **Removable Span Bridge:** For Bridge Program terms, means a bridge that requires the complete removal of a span by means other than machinery installed on the bridge to open the bridge to navigation.
130. **Shallow-draft Waterways:** Navigation channels provided for the movement of self-propelled vessels with drafts of 15 feet or less.
131. **Shallow Water:** A descriptive term to characterize navigation in waterways where the depth of water is shallow enough to cause significant ship hydrodynamic responses.
132. **Sheerboom:** A longitudinal structural elements generally positioned at a small angle to the direction of steam flow, placed to protect portions of bridge exposed to possible damage from impacts by floating debris or vessels. Sheer booms are generally positioned and anchored to accommodate fluctuations in water level and deflect the debris or vessel past the bridge substructure.
133. **Sheerfence:** Usually a timber fence that extends from a protective system element to or past a bridge pier to protect portions of bridge exposed to possible damage from impacts by floating debris or vessels and facilitates navigation through a span.
134. **Special Condition:** A provision in a bridge permit stating the permittee's obligations relating to a certain issue not normally existing in every bridge permit.
135. **Standard condition:** A provision in a permit stating the permittee's obligation to a situation common to all bridge projects with only minor adjustments.
136. **Standard Datums:** (For datums not listed, please contact the local Coast Guard District for assistance.)
- a. **High Water (HW):** The maximum height reached by a rising tide.
  - b. **International Great Lakes Datum (IGLD):** Height, in feet, above Low Water Datum (LWD) at a location in the Great Lakes basin.
  - c. **Mean High Water (MHW):** The average of the height of diurnal high waters at a particular location measured over a period of 19 years.
  - d. **Mean Low Water (MLW):** The average of the height of diurnal low waters at a location measured over a period of 19 years.
  - e. **Mean Sea Level (MSL):** The average height of the surface of the sea for all stages of the tide over a 19-year period. The datum for topographic maps and most land elevation references.

- f. **Normal Pool Elevation:** Height in feet above sea level at which a section of the river is to be maintained behind a dam (impoundment design elevation).
  - g. **Two-Percent Flowline:** The statistical water surface elevation not expected to be exceeded more than two percent of the time at a particular location.
137. **Statute Mile:** A distance of 5,280 feet, equivalent to 1.60935 kilometers.
138. **Superstructure:** The structure of a bridge above the piers.
139. **Swept Path:** A single trace of the path of the extremities of the vessel platform as it makes its track while it transits the waterway. Account is taken of drift, drift angle and yaw.
140. **Temporary Bridge:** A temporary bridge is one constructed for a specific temporary purpose and is required to be removed by a certain time. There are temporary bridges but no temporary permits.
141. **Template:** A series of guides available to assist district bridge offices in drafting deviations and regulations. Bridge templates contain specific terminology used by the Bridge Program to ensure that all necessary sections of the rule have been addressed; available in Coast Guard intranet.
142. **Tidal Currents:** The reversing horizontal movement of water associated with the rise and fall of the tide caused by astronomical tide-producing forces.
143. **Tow (Noun):** An assembly of barges or other floating vessels being towed (pushed or pulled) by a self-propelled vessel (towboat) and under the charge of the vessel (towboat). A “tow” may be a towboat and one or more barges.
144. **Tow (Verb):** On the inland waterway system the verb “tow” usually means pushing barges.
145. **Towboat:** On the inland waterway system the word “towboat” usually means a self-propelled vessel designed to push barges. Small towboats are often called “switchboats.”
146. **Track:** A trace or trajectory of the path of a vessel as it makes its transit of a waterway. A vessel’s line of travel or course made good.
147. **Trench Channel:** Dredged or open-type restricted channels, intermediate between canals and shallow water, with submerged banks on each side, usually provided with range markers and channel edge buoys or beacons.
148. **Untended:** For Bridge Program terms, means that there is no drawtender at the drawbridge.
149. **Unused Bridge:** For Bridge Program terms, means any bridge no longer used for a land transportation purpose.

150. **Vertical Lift Bridge:** For Bridge Program terms, the drawspan opens by being lifted vertically.
151. **Vessel:** A general term referring to all types of self-propelled watercraft including ships, towboats, barges, tugs, yachts, and small boats.
152. **Yaw:** A nautical term to describe when a vessel swerves sideways or off course momentarily or temporarily.
153. **100-Year Flood:** The water surface elevation with a one-percent chance of being exceeded in any given year, commonly known as a base flood.