

the light will show equally on either side of a line parallel to the axis of the channels, so that they will be visible from an approaching vessel.

NOTE: Until such time that major repairs to or replacement of lift span navigation lights are made, existing lights may show through a horizontal arc of less than 180°. When major repairs to or replacement of existing lights are made they shall conform with this paragraph.

(b) *Multiple parallel lift span lights.* The outermost side of each outer span of every bascule bridge with parallel multiple lifts shall be lighted as prescribed in paragraph (a) of this section; the lights shall be controlled so that the green lights will be displayed only when all spans are open for navigation. The inner sides of each outer lift span and both sides of each inner lift span of such bascule bridge shall be lighted by red lights for all positions of the lift span. These lights shall have the same arcs of illumination and shall be mounted as described in paragraph (a) of this section.

(c) *Pier lights.* Every bascule bridge shall be lighted so that each end of every pier, or protection pier where provided, in or adjacent to the navigable channels under the lift span or spans will be marked by a red light. Each such red light shall show through a horizontal arc of 180°, and shall be securely mounted as low as practicable on the end of the pier, or protection pier, to show 90° either side of a line parallel to the axis of the navigable channel so as to be visible from an approaching vessel.

(d) *Axis lights.* Every bascule bridge which has at least one pier provided with a protection pier shall be lighted so that the intersection of the long axis of the lift span with the channel side of each pier, or protection pier, will be marked by a red light: *Provided*, That if all such piers and protection piers are straight along their channel faces these lights shall not be required. Each such red light shall show through a horizontal arc of 180° and shall be securely mounted on the navigable channel face of the pier as low as practicable to show 90° on either side of a line normal to the axis of the navigable channel so as to be visible from an approaching vessel.

§ 118.85 Lights on vertical lift bridges.

(a) *Lift span lights.* The vertical lift span of every vertical lift bridge shall be lighted so that the center of the navigable channel under the span will be marked by a range of two green lights when the vertical lift span is open for navigation, and by one red light on each side for all other positions of the lift span. The green lights shall each show through a horizontal arc of 360°; they shall be securely mounted just below the outermost edge of the bridge span structure so as to be visible from an approaching vessel. Each red light shall show through a horizontal arc of 180°, and shall be securely mounted just below the outermost edge of the lift span to show 90° on either side of the line parallel to the axis of the channel so that only one such light will be visible from an approaching vessel.

NOTE: Until such time that major repairs to or replacement of lift span navigation lights are made, it is permitted that these lights show through a horizontal arc of not more than 60°. When major repairs to or replacement of such existing lights are made they shall conform with this paragraph.

(b) *Pier lights.* Every vertical lift bridge shall be lighted so that each end of every pier in or adjacent to navigable channels under the lift span, or each end of every protection pier when provided, will be marked by a red light. Each such light shall show through a horizontal arc of 180°, and shall be securely mounted as low as practicable on the end of the pier, or the protection pier, to show 90° on either side of a line parallel to the axis of the navigable channel so as to be visible from an approaching vessel.

(c) *Axis lights.* Every lift bridge which has at least one pier provided with a protection pier shall be lighted so that the intersection of the lift span axis with the channel side of each pier adjacent to the navigable channel will be marked by a red light: *Provided*, That if every such pier, or protection pier, is straight along its channel face these lights shall not be required. Each such light shall show through a horizontal arc of 180°, and shall be securely mounted on the navigable channel face of the pier as low as practicable to show 90° on either side of a line normal

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to the axis of the navigable channel so as to be visible from an approaching vessel.

[40 FR 24898, June 11, 1975, as amended by CGD 75-046a, 42 FR 56954, Oct. 31, 1977]

§ 118.90 Bridges crossing channel obliquely.

Bridges crossing a body of water at an angle other than 90° with the axis of the channel shall be lighted in accordance with the regulations in this part with such modifications as are necessary in each particular case.

§ 118.95 Lights on structures not part of a bridge or approach structure.

Lights on sheer booms, isolated piers, obstructions, and other structures not part of a bridge or approach structure must meet the requirements for aids to navigation in Subpart 66.01 of Part 66 of this chapter.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.100 Retroreflective panels on bridge piers.

The District Commander may require or authorize the display of high intensity red or green retroreflective panels when the District Commander finds it necessary:

(a) To better identify a hazardous pier.

(b) To provide a backup for red pier lights, red channel margin lights, and green mid channel lights, which are subject to vandalism or otherwise difficult to properly maintain. If the District Commander determines that the nominal nighttime visibility required is less than one-half mile, the panels must be at least six inches square. If the visibility required is more than one-half mile, the panels must be at least 12 inches square.

(c) To mark bridge piers or channel sides on bridges not required to have bridge lighting. Lateral significant red triangles and green square retroreflective panels shall be used. The panels shall be at least 36 square inches in area to provide a nominal nighttime visibility distance of at least one-half mile.

[CGD 84-022, 51 FR 16313, May 2, 1986]

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§ 118.105 [Reserved]

§ 118.110 Daymarks and lateral lighting on bridges.

(a) The District Commander may require or authorize the marking of the margins of navigation channels through bridges with U.S. aids to navigation system lateral marks and lights installed on the superstructure or on the channel piers. The District Commander may also require or authorize the use of quick flashing, flashing, isophase or occulting red and green lights to mark the main channels.

(b) If lateral system lights are required or authorized to mark the main navigation channels, fixed yellow lights shall be used to mark the adjacent piers and the centerline of the channel shall be marked with the standard lateral system safe water mark and occulting white light, instead of the lights prescribed in §118.65.

(c) The District Commander may require or authorize the marking of the centerline of the navigation channel drawspan of floating drawbridges with a special mark, diamond in shape, yellow in color, and with a high intensity retroreflective material border. The District Commander may require or authorize the mark to exhibit a flashing yellow light Morse Code "B" characteristic. The mark may not be visible when the drawspan is in the open position.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.120 Radar reflectors and racons.

The District Commander may require or authorize the installation of radar reflectors and racons on bridge structures, stakes, or buoys. Radar reflectors are used to mark the location of the edge of the navigation channel or bridge channel piers. Racons are used to mark the centerline of the channel.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.130 Fog signals.

On waterways where visibility is frequently reduced due to fog or other causes, the District Commander may require or authorize the installation of one or more fog signals to warn the navigator of the presence of the bridge.