

REGULATORY ACTIONS, BRIDGE LIGHTING, REMOTE OPERATIONS



Hello, I am Chris Jaufmann with the Coast Guard Bridge Program Operations division.



Objectives

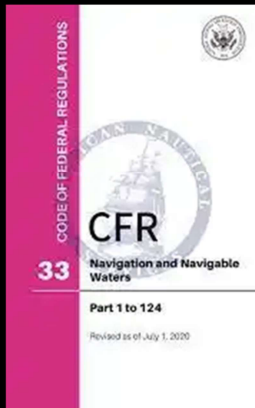
- **Identify the Bridge Regulations that effect Drawbridge Operations and Bridge Lighting**
- **Briefly discuss Bridge Navigation Lighting and Decorative Lighting**
- **Briefly discuss Remote or Automated Bridge Operations**

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So over the next few slides I will briefly describe other elements beside permitting to consider for your bridge.



DRAWBRIDGE REGULATIONS



33 CFR Part § 117

Drawbridge Operation Regulations



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- The Coast Guard must ensure that bridges across navigable waters of the United States do not unreasonably obstruct waterway traffic but at the same time consider the needs of both land and waterway traffic.
- In the case of drawbridges, the Coast Guard is mandated to prescribe rules and regulations for governing the closures of drawbridges to navigation. In other words, the Coast Guard requires drawbridges to open, and allows them to close.
- General Drawbridge operating regulations/requirements can be found in 33 CFR part 117 subpart a



DRAWBRIDGE REGULATIONS



Permanent Changes to an Operating Schedule “RULEMAKING”

- Unless otherwise authorized, drawbridges must open promptly and fully for the passage of vessels when requested or signaled.
- If circumstances warrant, specific requirements for drawbridge operations can be approved by the District Commander through the rulemaking process.
- These specific drawbridge regulations are found in 33 CFR § 117 Subpart B.

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- In accordance with 33 CFR 117, Unless otherwise authorized, drawbridges must open promptly and fully for the passage of vessels when requested or signaled.
- AND, Bridge Owners must provide the necessary drawtenders for the safe operation of those drawbridges.
- This means that all bridge must open on demand at all times by a drawtender. However, we all know that, that is not always practical and that at times there are special circumstances for the bridge to not open for the passage of vessels. An example would be during periods of high traffic volume, i.e. morning and evening rush hours.
- If circumstances warrant for a permanent change to the operating schedule of a drawbridge, a petition can made to the Coast Guard to start the rulemaking process
- In accordance with 33 CFR 1.05-20 Any member of the public may petition the Coast Guard to undertake a rulemaking action. There is no prescribed form for a petition for rulemaking, but the document should provide supporting information as to why the petitioner believes the proposed rulemaking is necessary and the document should clearly indicate that it is a petition for rulemaking.
- The petition is not a forgone conclusion that the requested change will occur. The CG will needs to first fully evaluate the request, it’s impact on the waterway users and through the rulemaking process, provide the public an opportunity to comment. If the Coast Guard approves, the specific drawbridge regulations it will be published in 33 CFR § 117 Subpart B.



DRAWBRIDGE REGULATIONS



Temporary Changes to an Operating Schedule “DEVIATIONS”



- For short term activities, maintenance, or operational testing at a drawbridge, the Coast Guard may initiate a temporary deviation to the bridge operating schedule for 180 days or less.
- Deviations are not rules and do not permanently change the established operating schedule for that bridge. The Deviation allows the bridge to temporarily operate under a proposed schedule and can even be used for evaluation purposes.

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- Under 33 CFR § 117.35, the Coast Guard can grant a temporary deviation from the Bridges current operating schedule for 180 days or less. A deviation is not rulemaking and is not a permanent change to the current operating schedule and will not be published in subpart B of 33 CFR 117. A deviation simply allows the bridge owner to not comply with the prescribed operating schedule for a set amount of time to not exceed 180 days. Deviations are used for Parades/marathons or short term maintenance projects and they can also be use to test a proposed operating schedule.
- Requests for deviations primarily come from the Bridge owner. However, the CG will except requests from contractors or event coordinators on behalf of the Bridge owner only if there is proof of Bridge Owner consent.

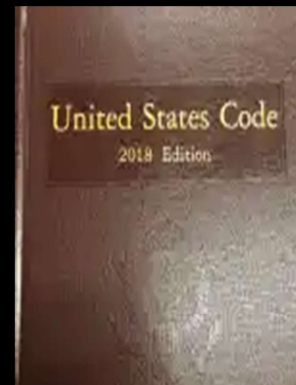


DRAWBRIDGE REGULATIONS



33 U.S.C. § 499

**Regulations for
Drawbridges**



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Other than the requirements in 33 CFR 117, there are additional requirements in 33 U.S.C. 499.

The Coast Guard Authorization Act of 2018 was signed into law on December 4, 2018 which amended 33 U.S.C. 499 "Regulations for Drawbridges. In this act there are requirements for bridge owners to maintain a logbook of all bridge operations/movement even if it is for maintenance reasons and to submit the logbook to the Coast Guard when requested. In 33 U.S.C. 499 a new paragraph was added that lists elements that need to be recorded to complete a logbook entry. These log records will assist the Coast Guard in executing several functions such as evaluating and determining appropriate changes to operating schedules and providing information for investigation and enforcement activities.

Along with the operational requirements of drawbridges we need to consider additional requirements for bridges such as Lighting, which bring us to the next topic Bridge Lighting.



NAVIGATIONAL BRIDGE LIGHTING



- Bridge navigational lighting is approved separately from a bridge permit.
- If there is significant nighttime navigation, submit a letter with drawings in accordance with 33 CFR 118 to the DBO.
- The District may exempt navigational lighting over waterways with no significant nighttime navigation.
- Bridge Lighting Guide is located on the CG Bridge Program Website



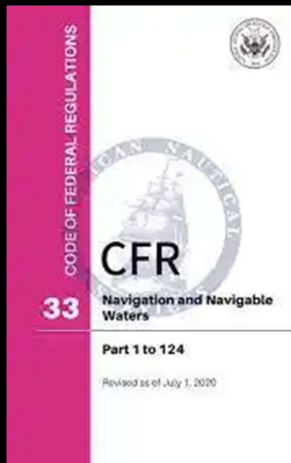
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- Bridge Navigation Lighting is necessary for the safety of navigation and protection of the bridge at night and under inclement weather
- When directed to do so, by the District Commander, the Bridge Owner will be required to submit a navigation lighting plan which identifies the primary and secondary (if appropriate) navigation span, the center and boundary edges of the navigation channel under those spans and in the case of Drawbridges, the position of the operational span in both the open and closed position.
- Rule of thumb for requiring navigation lights is if there is significant night time navigation. There are other factors that may be pertinent to the decision process and this determination will be made at the discretion of the District Commander. The District Commander may exempt navigational lighting over waterways with no significant nighttime navigation.
- Navigation lighting plans are separate from bridge permit plans and should never be included in the bridge permit plans.
- The District Commander also approves any changes to those lighting plans and any temporary lighting display during bridge construction

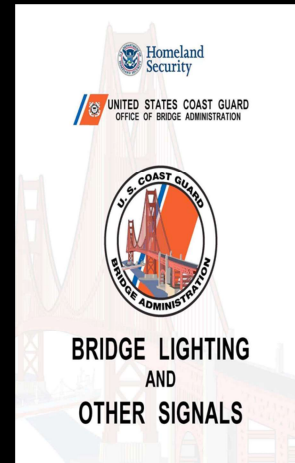
In this picture, the red lights mark the edge of the navigation channel and the green lights are placed to mark the center line of the navigation channel. There is also some decorative lighting lining the support cables and upper portion of the piers. This decorative lighting does not interfere with the navigation lighting.



NAVIGATIONAL BRIDGE LIGHTING



33 CFR Part 118
and
**Bridge Lighting and
other signals**



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To assist with the lighting plan 33 CFR part 118 prescribes standard lighting configurations, such as the previous photo, for both fixed and movable bridges. The description in the CFR is in text format only. There is also the Coast Guard Bridge lighting guide which provides illustrations for the lighting description in 33 CFR 118. This guide can be found on the Coast Guard Bridge Program website. Please note that not all bridges are created equal and the DBO may prescribe a special lighting configuration that will vary from 33 CFR part 118 to meet the needs for that particular bridge. Unfortunately, those unique configurations are not found in our manual at this time.

For safety reasons, any navigation lighting outage's must be reported to the CG as soon as possible so that we can convey the situation to the waterway users. All repairs must be made with due speed and notify your District Bridge Office of any issues or delays to coordinate a timely repair.



DECORATIVE BRIDGE LIGHTING



- Decorative lighting can not be used as or interfere with Navigational lighting.
- Bridge owner should submit “Decorative Lighting Plans” for CG review.

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Adding decorative lighting to your bridges requires coordination with the District Bridge Office in order to ensure that the decorative lighting does not interfere or obstruct the bridge lighting and signals approved by the Coast Guard for the safety of navigation.

So this is an example of decorative lighting. More and more bridges in metropolitan areas are using decorative lighting to show case their bridges. However, at no time can decorative lighting be used for Navigation lighting and at no time can the decorative lighting interfere with Navigation lighting or the nav channel. Contact the DBO prior to installing any Decorative lighting and submit plans that clearly show how the decorative lighting will be placed and that the navigation channel and nav lighting are not impaired by the decorative lighting or any of its appurtenances.

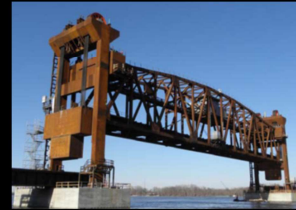
This brings me to my last topic. Remote and automated operations of drawbridges.



REMOTE OR AUTOMATED BRIDGE OPERATIONS



- Bridge owners desiring to operate movable bridges remotely require USCG approval per 33 CFR 117.42
- Requests must be submitted to the DBO. If a request is approved, a description of the full operation of the remotely operated drawbridge will be added to subpart B of 33 CFR 117.
- Remotely operated bridges must meet the general drawbridge operating regulations and meet the same level of safety and reliability as provided by an onsite bridge tender.



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If you would like to operate your movable bridges remotely or automate it, please reach out to the local district bridge office. Approval to remotely operate or automate your drawbridge must come from the Coast Guard and is required per 33 CFR 117.42.

Some of the things you may consider when reaching out to the District Commander for approval is:

- How the bridge will be monitored for operations and from what location
- Contingency planning for local operations
- Incident response
- And perhaps elements of the operations that supports the safety and reliability of the proposed remote bridge operation system
- Cyber Security

The key to Remote or Automated operation is that the bridge operates as if a tender were on site.

If a request is approved, a description of how the bridge will be remotely operated must/will be added to subpart B of 33 CFR 117. This will require rulemaking with public comment. A test deviation may be used as well to gather information.



QUESTIONS



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This ends my presentation. Are there any questions?