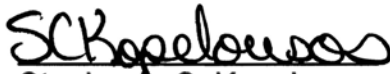


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Stephanie C. Kopelousos
Secretary

MOVABLE BRIDGE OPERATIONS

PURPOSE:

To establish procedures and guidelines for the safe, efficient and effective operation of movable bridges under the responsibility of the Florida Department of Transportation.

AUTHORITY:

United States Coast Guard Regulations 33 Code of Federal Regulations (CFR) Parts 117 and 118; Sections 20.23(3)(a), 316.003(57), 334.03(2), 334.046, 334.048, 335.074, 339.05, Florida Statutes; Florida Administrative Code Rule 14-48; 23 CFR Part 650, Subpart C-National Bridge Inspection Standards.

SCOPE:

The principal users of this procedure will be all persons involved with movable bridge operations, maintenance, inspection, and repair.

GENERAL:

This procedure supersedes the following procedures and manuals.

NUMBER	EFFECTIVE DATE	TITLE
850-010-031	February 14, 1995	Bridge Operations and Maintenance Manual

This procedure and the user **Handbooks** referenced in this procedure provide methods and systems designed to efficiently, effectively, and safely conduct the activities associated with Bridge Management.

When applicable, all work shall be performed in accordance with the referenced **Handbooks, Standard Specifications for Road and Bridge Construction**, as amended, **Roadway and Traffic Design Standards, Standard Drawings** from the

Structures Design Office, *the Manual on Uniform Traffic Control Devices*, *Department Loss Prevention Manual (Topic No. 500-000-015)*, and *American Association of State Highway Transportation Officials Policies and Procedures*.

REFERENCES

The following publications are available on the State Maintenance Office infonet site and from the Florida Department of Transportation Maps and Publication Sales, 605 Suwannee Street, Mail Station 12, Tallahassee, Florida 32399-0450, (850) 414-4050, unless stated otherwise.

Bridge Maintenance, Planning, and Repair Handbook - Defines standard maintenance and repair details.

AASHTO Movable Bridge Inspection, Evaluation and Maintenance Manual - Provides guidelines for the inspection, preventive maintenance, operation and repair of movable bridges. This document is available from the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street, N.W., Suite 249 Washington, D.C. 20001. This document is not available from the Department.

PROCEDURE

The District Director of Transportation Operations, or his designee, is responsible for coordination and compliance with the following requirements:

1.0 MOVABLE BRIDGE OPERATIONS AND MAINTENANCE

Movable bridge operation and maintenance shall be in full compliance with the applicable portions of the *AASHTO Movable Bridge Inspection, Evaluation and Maintenance Manual*.

2.0 OPERATIONS MANUAL

A bridge-specific operations manual shall be developed for each moveable bridge. The *Operations Manual* shall cover all aspects of normal bridge operation and emergency procedures as defined in *Chapter 3.7* of the above referenced manual.

3.0 BRIDGE TENDER

Any person operating a movable bridge shall meet all of the following criteria:

- must be at least 18 years of age, have a corrected vision of 20/40 or better, as verified by a periodic eye exam performed at intervals not to exceed two years ;
- be able to distinguish primary colors (red, green and blue), as verified by an initial eye exam;
- be able to hear frequencies from 500 to 6,000 Hertz between 15 and 50 decibels (DB) with hearing sensitivity in normal situations, as determined by an initial exam and at intervals not to exceed 5 years; and
- successfully complete a minimum 32 hours of classroom and on-site training based on the specific and current operational characteristics of the bridge.
- be able to climb bridge stairs and ladders.

4.0 MAINTENANCE

The activities discussed in **Chapter 4** of the **AASHTO Manual** shall be considered preventative maintenance and periodic maintenance and repair except for complete repainting or complete deck replacement.

5.0 HURRICANES AND OTHER NATURAL DISASTERS

Federal Regulations authorize drawbridges to remain closed to marine traffic during a natural disaster, such as a hurricane, unless the Coast Guard specifically directs otherwise.

5.1 The Coast Guard has delegated the authority to the State Emergency Operations Center (SEOC) to close movable bridges to traffic prior to hurricane landfall to facilitate evacuations. When the SEOC orders the closure of movable bridges they will inform the Transportation Emergency Operation Center (TEOC). The TEOC will inform the appropriate District Emergency Operation Centers to close the bridges.

5.2 The bridge-specific operations manual shall address advance considerations for securing the bridge for closure; such as removing traffic gates and shutting down and securing the control house.

6.0 HIGH WINDS

High winds may make a drawbridge inoperable or subject to damage. Drawbridges are authorized to remain closed while experiencing sustained winds of 34 knots (39 mph) or more if the Department has determined that closure is required to prevent damage to the bridge. Requests to close drawbridges at wind speeds less than 34 knots (39 mph) to prevent damage will be considered by the Coast Guard. Such requests should be accompanied by an engineering analysis showing the maximum wind the bridge could be expected to experience without damage while in an opened or partially opened position. Closure of a bridge because of high wind not ordered by the SEOC should be immediately reported to the Coast Guard. The closure should be reported to the SEOC if the SEOC is activated or to the State Watch Office.

7.0 SPECIAL REGULATIONS

7.1 In the absence of specific opening regulations a drawbridge is required to open promptly on signal. Schedules for all drawbridge operations can be found in **CFR 33, Part 117**. Except as provided by a particular bridge's opening schedule, drawbridges shall be opened promptly and fully for the passage of vessels when a request to open has been given in accordance with the signaling procedures. The bridge tender shall not question the vessel operator as to need for a bridge opening. The bridge tender shall open the draw span if the pilot signals for a bridge opening. If a bridge tender is required to open a drawbridge for a vessel because of a non-structural fixture on that vessel, which is not essential to navigation or which is easily lowered, then the bridge tender shall complete **Form No. 850-010-20, Bridge Tender's Report on Unnecessary Bridge Opening/Approach of Vessel** and submit to the bridge tender supervisor and area maintenance engineer.

7.2 The Department shall obtain permission from the Coast Guard if it is necessary to temporarily alter the schedule or to temporarily close a bridge. Notify the bridge tender when permission is obtained, the bridge tender shall comply with the temporary opening regulations.

8.0 MOVABLE BRIDGE QUALITY CONTROL PLANS

Each district with movable bridges shall have a quality control plan for the maintenance and operation of movable bridges in their district. The quality control plan shall include items to be reviewed and frequency of review. The quality control plan shall cover the following items:

- The training of bridge tenders
- Staffing of bridge
- Routine maintenance.
- Adherence to standards and regulations
- Bridge work orders
- Record keeping
- Monthly submitted maintenance and inspection reports
- Safety standards
- Lane closures and other Maintenance of Traffic
- Contingency plans in the event of primary system failure

9.0 TRAINING

None required.

10.0 FORMS

The following forms may be accessed in the Department's Forms Library:

- Bridge Tender's Report on Unnecessary Bridge Opening/Approach of Vessel (850-010-20)
- Vehicle Accident on Bridge (850-010-21)
- Bridge Tender Supervisor Inspection Form (850-010-23)
- Monthly Equipment Check List (850-010-24)
- Bridge Maintenance Log (850-010-25)
- Telephone Log (850-010-26)
- Bi-annual emergency Generator Check List (850-010-27)
- Bridge Tender's Comment Log (850-010-28)
- Bridge Tender Safety Equipment Checklist (850-010-29)
- Bridge Tender Shift Change Checklist (850-010-30)
- Bridge Information (850-010-31)
- Drawbridge Malfunction Report (850-010-32)
- Report of Bridge Accident Caused by Waterborne Traffic (850-010-33)
- Report of Drawbridge Openings (850-010-34)