

# **Navigation and Inspection Guide for Commercial Vessels Used For Hire on Inland Waters of Minnesota**

*Minnesota Department of Labor and Industry*

*Construction Codes and Licensing Division*

*443 Lafayette Road North*

*St. Paul, Minnesota 55155*

*651-284-5080*

REV 09/2018

## **Inspection of Charter Vessels used for hire.**

### **Inspection Each Year.**

Every owner, lessee or other person having charge of any boat subject to inspection shall cause the boat to be inspected by the Minnesota Department of Labor and Industry (DLI). Boats subject to inspection must be inspected at least annually.

## **License requirements for owners and operators of Charter Vessels used for hire.**

### **Examinations: Regulations: Licensing, Revocations.**

**Masters.** The division of boiler inspection must examine all masters and pilots of boats and vessels carrying passengers for hire on the inland waters of the state as to their qualifications and fitness. When an individual has passed the examination and is found competent to perform their duties as a Master they will be given a certificate authorizing them to act as such on the inland waters of the state.

**Rules.** The division of boiler inspection will make such rules for inspection and operation of boats subject to inspection, the licensing of pilots/masters, and the navigation of any such boat or vessel as well will require their operation without danger to life or property.

**Suspension, Revocation.** The division of boiler inspection may suspend or revoke the license of any master/pilot found under the influence of drugs or alcohol when on duty or who otherwise disregards public safety.

### **Violations by Those Responsible for Operation.**

**Violating rules.** Any owner, master or other person violating any rule prescribed by the Department of Labor and Industry is guilty of a misdemeanor.

**Inspection violation.** Any person who causes to be operated, or operates, any boat without having it inspected at least once each year and/or without having the proper Master license is guilty of a misdemeanor.

## **Liability of Persons Operating Boats; Penalty.**

Every captain or other person having charge of the machinery of a boat used for the conveyance of passengers in the waters of this state, who does willfully, or from ignorance or gross neglect, create, or allow to be created any condition whereby human life is endangered, and every owner and lessee of a boat, who has knowledge of such a condition, or of circumstances which would cause such a condition, will be guilty of a gross misdemeanor.

## Definitions.

**Boat.** “Boat” means any vessel navigating inland waters of the state of Minnesota which is propelled by machinery or sails, is carrying more than six passengers for hire.

**Length.** “Length” means the straight-line distance from the foremost part of the boat (bow) to the rear most part of the boat (stern).

**Passengers for hire.** “Passengers for hire” means the carrying of any persons by a boat for a valuable consideration, whether directly or indirectly flowing to the owner, charterer, agent, or any other person interested in the boat. A passenger for hire does not include the pilot, the crew, or other persons employed or engaged in any capacity on board a boat in the business of that boat.

**Underway.** “Underway” means a boat when it is not at anchor and is not made fast to the shore or ground.

**Visible.** “Visible,” when applied to lights, means visible on a dark night with a clear atmosphere.

## Inspection of Boats.

**Inspections required.** Boats are required to have an annual safety inspection and boat hull inspection to carry passengers for hire. It is the responsibility of the boat’s owner or lessee to schedule and obtain the annual safety inspection or boat hull inspection as required.

**Safety inspection.** An annual safety inspection by the department is required of any boat carrying passengers for hire. The owner or lessee of the boat must affix a sticker provided by the department in a conspicuous place that is visible to other watercraft that indicates the boat was inspected.

**Dry dock inspection.** A boat’s hull must be inspected in dry dock, separate from the annual safety inspection, by the department or by a certified marine surveyor. The dry dock inspection is a comprehensive inspection. Boats with wooden hulls must have an annual dry dock inspection. Boats with metal or composite hulls are subject to a dry dock inspection once every three years. The boat owner is responsible for obtaining an inspection of the boat hull. Dry dock inspections conducted by the department constitute a separate fee.

**Coast Guard exemption.** A boat with a safety inspection conducted by the United States Coast Guard and authorized to carry passengers on waters under the jurisdiction of the United States Coast Guard is exempt from the required annual safety inspection. A comprehensive boat inspection by the United States Coast Guard within the specified time frames exempts that boat from both the safety inspection and dry dock inspection requirements. The boat owner must provide the department written documentation or evidence that the boat passed the requisite inspections.

**Inspections optional.** Boats that carry six passengers or fewer may be inspected by the department at the owner's request if the owner pays for the inspection. Boats carrying six passengers or fewer must meet the safety equipment requirements established by the Minnesota Department of Natural Resources and local water patrol requirements.

**Inspection standards.** The division conducts the inspection based on Code of Federal Regulations, title 46, as applicable to fresh water and inland waters, and other State of Minnesota requirements.

## License Requirements.

**General.** The operation of a boat requires a valid, current Minnesota pilot's license issued by the division.

**Requirements for licensure.** An applicant for a master license must:

- A. fill out an application on forms provided by the division;
- B. submit an affidavit from a person who can attest to the experience of the applicant;
- C. pass an examination prepared by the chief boiler inspector with a score of at least 70 percent; and color test.
- D. pay the license fee.

**Experience documentation.** An applicant must have at least 15 hours of training experience operating a boat. The training experience must be supervised by a licensed master. The applicant must submit an affidavit completed by the supervising licensed pilot attesting to the applicant's training experience. The applicant must submit the affidavit before taking the examination.

**Exemptions from affidavit and examination requirement.** The affidavit and examination requirement shall be waived for an applicant possessing a current United States Coast Guard master license.

**Effect of failure of examination.** An applicant who fails to pass the examination is not eligible to take another examination for 30 days. The fee paid for the examination will not be refunded.

## License Expiration and Renewal.

**Timing.** Licenses for masters, unless revoked, are valid for two years from the date of issuance, with privilege of renewal without examination upon application to the division, and payment of a renewal fee within 30 calendar days of the expiration date. A renewal may not be submitted before 60 days preceding the expiration date of the license. Masters who fails to renew their licenses before the thirty-day grace period has expired are subject to the requirements in A and B below.

**A. Application for renewal within two years of expiration.** A license that has expired may be renewed within two years of expiration without an examination by filing an application for renewal and submitting the expired renewal fee.

**B. Renewal application after two year of expiration.** After two years after the expiration of a license, the license will not be renewed. An applicant must reapply.

## Reports of Damage.

A master of a boat must report in writing to the office of the chief boiler inspector of the department any accident causing either death, an injury that requires hospitalization, or damage in excess of \$1,000. In the event of a death, the report must be made within 48 hours. In the event of an injury or property damage, the report must be made within five days. The master must also promptly report any other master who does not properly discharge the duties of a pilot/master and any person who flashes a light into the face of a master or otherwise commits an act that endangers the safety of a master or passengers of a boat.

## Design Changes.

**Approval of design.** The division must be notified before any design change is made to a boat that changes the length, draft, center of gravity, or superstructure of the boat. Drawings, sketches, or written specifications of the changes must be reviewed and approved by a marine architect designated by the boiler division. The marine architect will make a report regarding the proposed design changes to the chief boiler inspector. Final approval or disapproval of design changes will be made by the chief boiler inspector. All costs of the review by the architect must be paid by the boat owner.

**Stability test.** A stability test is required before the boat is placed back in service when a boat's length or draft is changed, its superstructure increased, its center of gravity is changed, or anytime required by the Officer in Charge of Marine Inspections. The stability test must be witnessed by an inspector of the boiler division. The cost of the stability test must be paid by the boat owner. Boat owners with letters of stability from the manufacturer of the vessel or a registered marine surveyor will not be subject to stability tests unless changes have been made to the vessel that would affect the vessels stability.

## Operating Permit.

**Requirement.** A boat owner must obtain an annual permit for each boat to carry passengers for hire. The permit must be obtained prior to carrying any passengers for hire each calendar year.

**Permit application.** The boat owner must apply for an operating permit on a form approved by the commissioner with payment of the fee. The application is to be submitted at least 60 calendar days immediately preceding the boat owner's projected start date of operations.

**Operating permit.** The commissioner may issue the boat owner or lessee a permit upon receipt of a properly completed application and payment of the appropriate fee. The permit may

include any limitations or information tailored to the individual boat determined to be appropriate by the chief boiler inspector.

A person operating a boat without an operating permit is guilty of a misdemeanor and is subject to a penalty in the amount of the cost of inspection up to a maximum of \$10,000.

### **Revocation of Permit; Penalties.**

A person in charge of operating the boat who willfully, or from ignorance or gross neglect, creates or allows to be created any condition endangering human life is subject to disciplinary procedures, and a boat owner who has knowledge of the condition, or of circumstances that would cause such a condition, is guilty of a gross misdemeanor under Minnesota statute.

### **Passenger Capacity.**

The passenger capacity of each boat shall be designated by the chief boiler inspector under Code of Federal Regulations, title 46. The number of passengers onboard a vessel shall never exceed the number of type I life jackets on board the vessel.

### **The inspection and licensing requirements can be arranged by contacting:**

Department of Labor and Industry  
CCLD / Licensing  
443 Lafayette Road North  
St. Paul, MN 55155-4304  
(651) 284-5031  
Website: [www.dli.mn.gov](http://www.dli.mn.gov)

### **Suggested study material**

Minnesota Boating Guide available at:  
Department of Natural Resources  
Bureau of Information and Education  
Boat and Water Safety  
Box 46  
500 Lafayette Road North  
St. Paul, MN 55146

United States Coast Guard Navigation Rules, International - Inland COMDTINST M16672.2D available at:  
Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402

Contact your public library for books about watercraft safety and navigation of inland waters. We suggest all pilots attend classes dealing with First Aid and CPR (cardiopulmonary resuscitation)

## Definitions

We will be using terms which may be unfamiliar or new. Because these rules are in fact laws, exact definitions become very important. The following terms may appear throughout this document.

*ABYC* – American Boat & Yacht Council

*Danger Zone* - The area from dead ahead of a vessel to two points abaft her starboard beam.

*Flame Screen* – A single screen of corrosion resistant wire of at least 30 X 30 mesh.

*Give-way Vessel* - Same as burdened vessel.

*Lanyard* – A short rope or gasket used for fastening something.

*Line* – A cable, rope, string, cord, or wire. A rope put to use aboard a ship.

*Master* – The captain of a boat person in charge.

*OCMI* – Officer In Charge of Marine Inspections – Chief Boiler Inspector

*PFD* - Personal Floatation Device.

*Point* - An arc of 11 1/4 degree of the horizon (32 points equal the full circle 360 degree).

*Power Driven Vessel* - Any vessel propelled by machinery, including any sailing vessel under sail AND power. In general this term is used in the International rules.

*Right-of-Way* - The right and duty to maintain course and speed.

*Sailing Vessel* - Any vessel which is under sail alone, including any power vessel under sail and not under power.

*Stand-on Vessel* - Same as privileged vessel.

*Steam Vessel* - Any vessel propelled by machinery.

*USCG*- United States Coast Guard

*Underway* - Not at anchor, aground, or made fast to the shore.

*Vessel* - Every description of watercraft used or capable of being used as a means of transportation on the water.

*Visible* (when applied to lights) - Visible on a dark, clear night.

## Equipment

When in use and passengers are embarked, the following minimum equipment must be carried on board and in workable condition:

1. **Oars or pole:**

All vessels must have for use onboard oars or a pole.

2. **Anchors:**

One or more anchors with adequate chain or rope attached to the anchor.

3. **Fire extinguisher:**

At steering station - One B I

Each confined or enclosed machinery space - One B II

Vessels propelled with outboard(s) – One B II

Accommodations and galley - One B I

One B I = 1 1/2 gallons foam or 4# CO<sup>2</sup> or 2# dry chemical

One B II = 1 1/2 gallons foam or 15# CO<sup>2</sup> or 10# dry chemical

All fire extinguishers shall be inspected and serviced within the preceding 12 months by an approved servicing company. Each extinguisher shall have a durable tag securely attached to show the maintenance or recharge date and the initials or signature of the person who performs this service.

4. **Bilge Pumps:**

Boats less than 65' carrying over 49 passengers must have one fixed power bilge pump rated at 25 GPM and one portable hand bilge pump rated at 5GPM. Boats less than 65' carrying less than 49 passengers must have one fixed power bilge pump rated at 10 GPM and one hand portable pump rated at 5 GPM. Boats less than 26' must have one hand portable pump rated at 5 GPM.

5. **Personal Floatation Device:**

All boats must carry on board one Type I Coast Guard approved adult personal floatation device for each person permitted to be carried as listed on the current certificate and, in addition, unless children are never carried, a number of personal floatation devices suitable for children equal to ten percent of the total number of persons carried.

All personal floatation devices must be stenciled with the vessel's name or number, be in good useable condition and readily available for use and fitted with retro-reflective tape.

Personal floatation devices must be stored where they are accessible for use by the passengers. The location should be marked with the word Adult PFDs, children's should be stored separately and storage area should be marked Child PFDs.

6. **Ring Life Buoy:**

All vessels shall carry at least one ring life USCG approved buoy with retro-reflective tape and 60' of at least 5/16 UV resistant, buoyant, non kinking line attached. Ring buoys shall be 20" or more in diameter for boats less than 26'; for boats over 26' a 24" diameter ring life buoy is



required. If the vessel is authorized to operate at night, a Floating Water light with a 3-6 foot lanyard must be attached to the Ring Life Buoy with a corrosion resistant clip.

**7. Whistle:**

Every vessel shall carry an efficient whistle or other sound producing mechanical appliance.

**8. A First Aid Kit:**

We recommend the American Red Cross First Aid Kit for car and home, or a Coast Guard accepted type for boats.

**9. Batteries:**

All batteries shall be accessible for maintenance and removal. They should be securely strapped down to prevent movement and covered to prevent sparking. Connections to terminals shall be of the permanent type, spring clips or other temporary type connections are not approved.

**10. Registration/ Documentation:**

All vessels shall be properly registered and licensed with the State of Minnesota.

**11. Master's License:**

All Boat's carrying passengers for hire require a current State of Minnesota issued Master's license to operate. Current licenses shall be displayed in a conspicuous space near the operating station. Exception: Boats operating on Lake Superior and Lake of the Woods must have a Coast Guard issued license.

**12. VHF Radio:**

At all times, vessels shall have a VHF Marine Radio in good operating condition.

**13. High Level Bilge Alarm:** All vessels 26ft and above in length shall have a visual and audible alarm provided at the operating station to indicate high water levels in the bilges. A machinery space with a through hull connection below the deepest load water line must have a high bilge level alarm. All through hull connections that penetrate the hull below the deepest load water line must be made of metal.

**14. Flammable Vapor Detection System:** All vessels using gasoline with enclosed machinery or fuel storage spaces shall have a Flammable Vapor Detection system installed. This system must be operational for 30 seconds prior to engine startup and provide a visual and audible alarm at the operating station. Sensors shall be located above the expected bilge water level, in the lowest part of the machinery spaces and/or in the lowest part of enclosed spaces containing fuel tanks that are separate from machinery spaces.

**15. Total Persons Permitted:**

The total number of passengers and crew allowed on board is determined by the OCMI or the designated Marine Inspector and is listed on the current certificate of inspection. Newly built vessels shall have manufacturers registered capacity or letter of stability. If these documents are not available, a qualified marine surveyor or a Marine Inspector employed by CAIS shall perform a simplified stability test on the vessel. Any increase in the total persons permitted or any design change that affects the length, draft, center of gravity or superstructure of the

vessel will require notification to the OCMI, prior to any changes, and may require a simplified stability test as described in CFR-46. A vessel shall never carry more passengers than is allowed by law and shall never carry more passengers than the number of personal floatation devices onboard the vessel.

## **16. Navigational Lighting Requirements and Vessel Classification**

All vessels must display the correct lights for their class from sunset to sunrise when underway or at anchor. At all times, vessels shall have the required Navigational Lights and Anchor Lights in good operating condition. The rules concerning lights shall be complied with in all weathers from sunset to sunrise, and during such time no other lights which may be mistaken for the prescribed lights shall be exhibited. If operated between sunset and sunrise, a vessel shall be equipped with a green light on the starboard side and a red light on the port side of the bow of the boat and shielded so they cannot be seen across the bow, and a white stern light visible from any angle within 360 degrees. All boats shall have ready a lantern or flash light which shall be temporarily exhibited in sufficient time to avoid collision.

### **Vessel Classifications**

- Class A - Under 16 feet in length
- Class 1 - 16 feet to less than 26 feet
- Class 2 - 26 feet to less than 40 feet
- Class 3 - 40 feet to 65 feet

### **Requirements**

- A. Inland Rules Light Requirements for Classes A and 1:
  - A 20-point (225 degrees) combination red-green bow light.
  - A 32-point (360 degrees) bright white light aft, to show all around the horizon, located above the red-green combination lights and visible at a distance of at least two miles.
  - The 32-point (360 degrees) white light aft may be located off center line.
  - When at anchor, a 32-point white light, must be visible at a distance of at least one mile, all around the horizon.
  
- B. Inland Rules Light Requirements for Classes 2 and 3:
  - Separate 10-point (112.5 degrees) red and green side lights showing from dead ahead to 2 points (22.5 degrees) abaft the beam and visible at a distance of at least one mile.
  - A 20-point (225 degrees) white light as near the bow as possible showing 10 points on each side and visible at a distance of at least two miles.
  - A 32-point (360 degrees) bright white light aft to show all around the horizon visible at a distance of at least two miles and located clearly higher than the 20-point white light forward.
  - When at anchor, a 32-point (360 degrees) white light, visible at a distance of at least one mile all around the horizon.

## **17. Backfire Flame Arrestors:**

All vessels with inboard gas engines shall have USCG approved Backfire Flame Arrestors

installed and in good operating condition.

**18. Exhaust Manifolds:**

Exhaust Manifolds and exhaust systems for inboard engines shall be water-cooled and approved for marine use.

**19. Mechanical Ventilation:**

All vessels shall have a natural and mechanical ventilation system installed to prevent the accumulation of flammable vapors in enclosed machinery or fuel storage areas. The mechanical ventilation must be operated prior to starting gasoline engines for the time sufficient to insure at least one complete change of air in the space served. A Ventilation Warning Placard shall be installed at the operating stations to instruct the operator to run the Mechanical Ventilation prior to starting engines in enclosed spaces.

**20. Fuel Tanks:**

All Fuel Tanks shall be of USCG approved construction and shall be designed to meet the requirements of CFR-46. All openings (except for a cleaning fitting) shall be located on the top of the tank. Fuel Tanks shall be adequately supported and braced to prevent movement. Fuel Tanks and fill connections shall be electrically bonded to a common ground. Fill pipes on fuel tanks must be at least 1 ½ NPS. All Fuel Tanks shall be properly vented. The vent discharge shall terminate on the exterior of the hull and as high above the water line as practicable. The vent shall have a Flame Screen of at least 30 X 30 mesh or Flame Arrester located on the vent discharge. Vessels less than 65' carrying less than 12 passengers may use ABYC standards for fuel tanks.

**21. Fuel Lines:**

Fuel Lines including pipe, tube and hose must be USCG approved. Flexible fuel lines must be at least type A1 double wall construction and double clamped at each connection. Gasoline fuel lines shall be connected to the top of the fuel tank with a shutoff valve. If at any point the fuel line runs below the top of the fuel tank the fuel line or fuel tank must be equipped with anti-siphon protection.

**22. Electrical Installation:**

All wire, cable, distribution panels, switches and connectors must be USCG approved for marine use. All wiring for power or lighting circuits shall be boat cable or stranded copper wire No 14 AWG or larger, and control or indicator circuits must be No 22 AWG or larger and shall be properly supported. Wire shall have sufficient current carrying capacity for the circuit in which they are used and protected from the weather. Splices should be made in watertight boxes with a terminal block or other approved connector. Circuits must have a fuse or breaker for over current protection. If individual wires, rather than cable, are used in systems greater than 50 volts, the wire must be enclosed in conduit. Each insulating grounding conductor cable is identified by a green braid or green insulation. On non-metallic vessels electrical equipment must be bonded together to a common ground by a normally non-current carrying conductor. (NOTE: Romex-type wire and twist on type wire nuts are not approved for use in marine applications!)

**23. Maintenance Log:**

All vessels shall have a maintenance log listing the dates and times of all maintenance and repairs.

## 24. Emergency Procedures

The master and crew of a vessel must be familiar with the content of and have mounted at the operating station, emergency actions to be taken in the event of a fire, heavy weather, or a man overboard condition.

## 25. Passenger Log:

All vessels shall have a Passenger Log listing the dates, times, number of passengers and a phone contact for each group. This log should be stored at the vessel homeport and may be used by emergency personnel to assist in rescue efforts in case of an accident.

## Crew Requirements

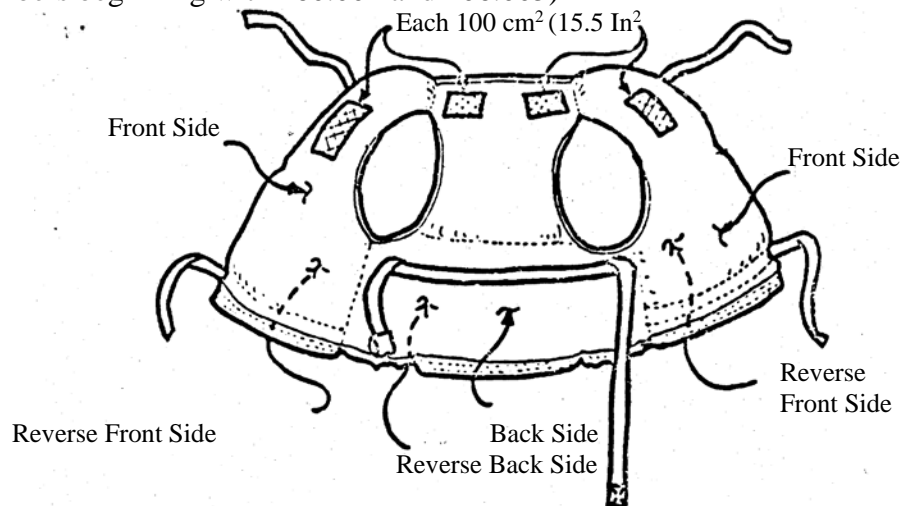
All vessels must carry a licensed master and additional crew members as determined by the OCMI or chief boiler inspector based on vessel size, route, duration of trip, vessel configuration and handling characteristics.

## Reports of Damage

Masters shall report in person to the sheriff department of appropriate county, and in writing to the office of the OCMI any accident causing damage in excess of \$100.00, personal injury or a fatality. They shall also promptly report any other master who does not properly discharge the duties of a master or otherwise commits an act that endangers the safety of any other vessel.

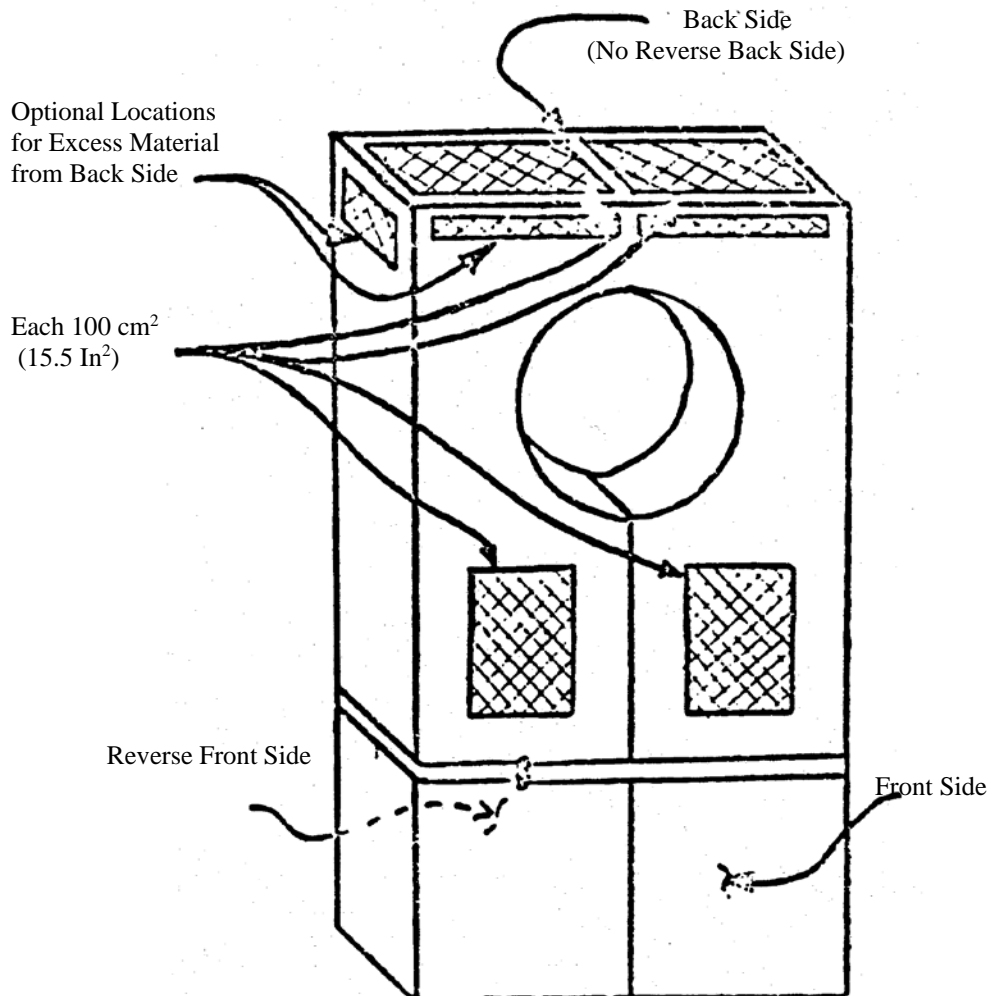
## Life Preserver (Type 1 PFD) - Kapok and Fibrous Glass

(Approval numbers beginning with 160.002 and 106.005)

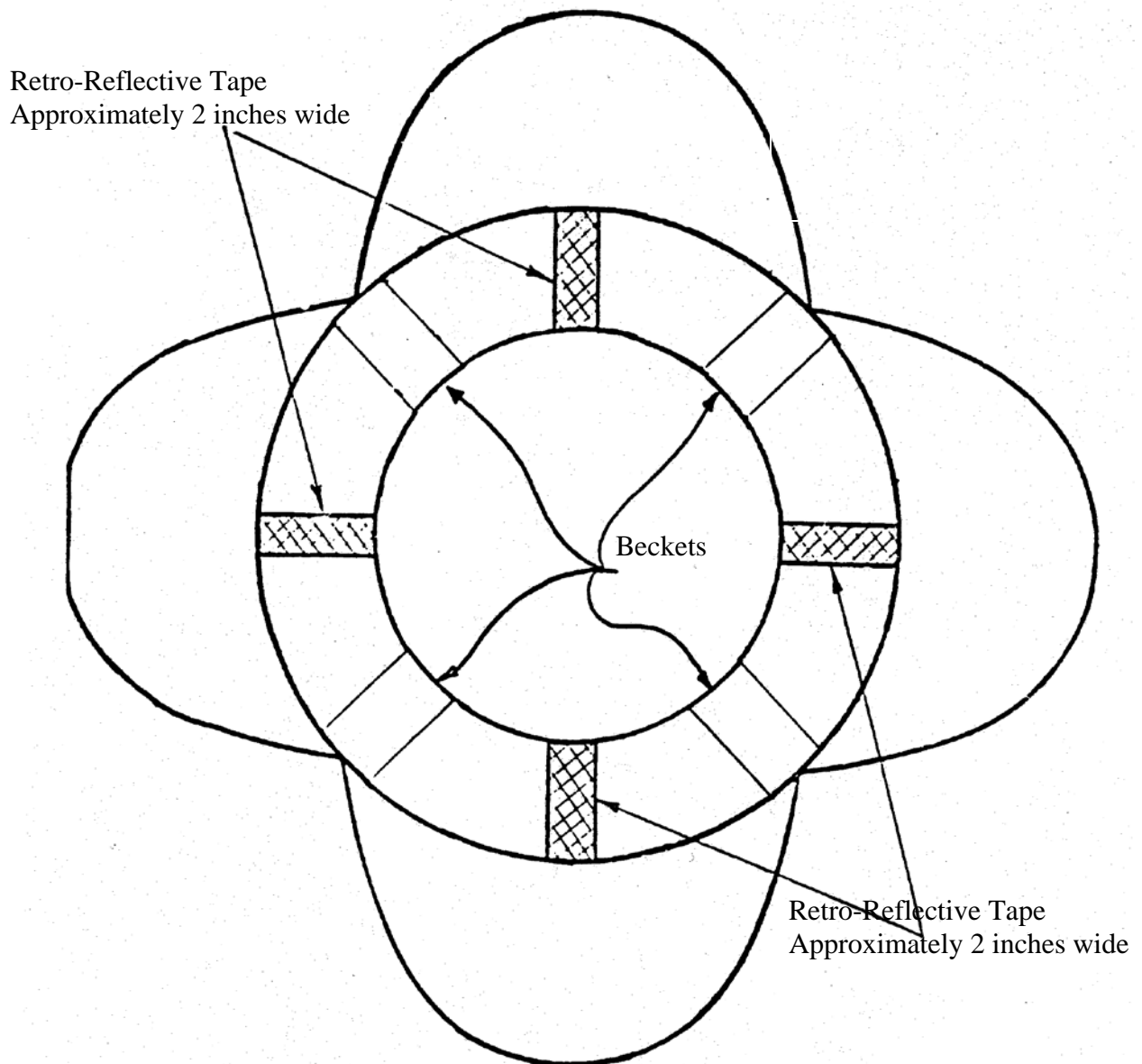


## Life Preserver (Type 1 PFD) - Plastic Foam

(Approval numbers beginning with 150.055)

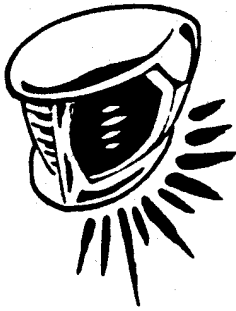


## Ring Life Buoy

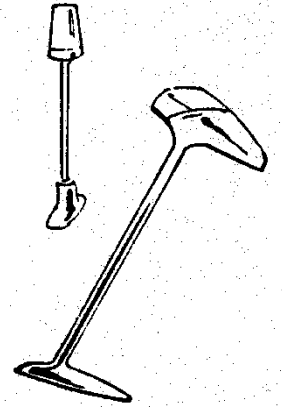


Note: Avoid placing retro-reflective material on beckets.

# Navigation Lights



All motor boats are required to display navigation lights prescribed for their length when operated between the hours of sunset and sunrise. The international configuration may be displayed on the high seas and on all United States waters. Motorboat Act of 1940 configuration cannot be displayed on the high seas.

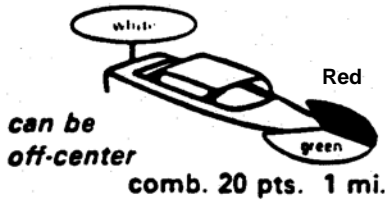


## Inland International

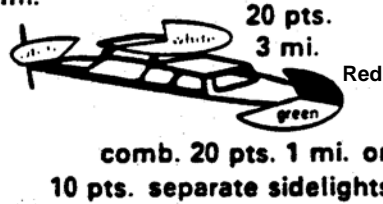
### Less than 16'-26' in length



*higher than bowlight*  
32 pts. 2 mi.



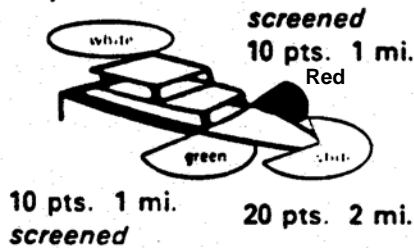
*can be off-center*  
12 pts. 2 mi.  
*carried 3 ft. higher than colored lights*



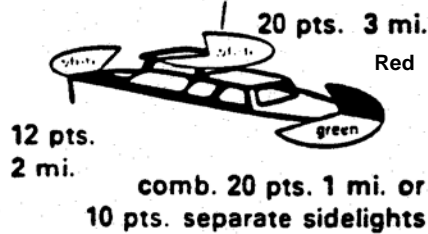
### 26' to less than 40' in length



*higher than bowlight*  
32 pts. 2 mi.



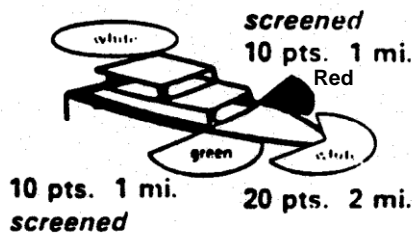
*carried 3 ft. higher than colored lights*



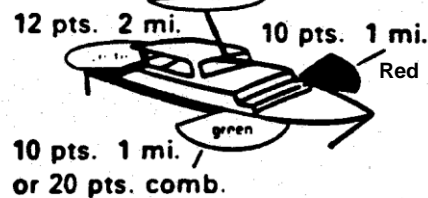
### 40' to less than 65' in length



*higher than bowlight*  
32 pts. 2 mi.



*located 9 ft. above gunnels*  
20 pts. 3 mi.



## Emergency Instructions

These emergency instructions are not all inclusive. The Master and crew of the vessel may need to implement additional procedures to prevent damage to vessel and injury to passengers. In all emergencies the Master should instruct a crew member or passenger to call 911.

### Fire

1. Cut off air supply to fire. Close all vents and louvers if possible.
2. Secure mechanical ventilation
3. Cut off electrical system supplying compartment, if possible
4. If safe, immediately use portable fire extinguishers at base of flames for flammable liquids or grease fires or water for ordinary combustible materials. Do not use water on electrical fires.
5. If the fire is in a machinery space, shut off fuel supply and ventilation and activate fixed extinguishing system, if installed.
6. Maneuver the vessel to minimize effect of wind on fire.
7. If unable to control fire, immediately notify Coast Guard, local fire department (911), and nearby vessels by radio or phone.
8. Move passengers away from fire, have them put on life jackets, and if necessary prepare to abandon vessel.

### Man Overboard

1. Throw a ring buoy overboard as close to the person as possible.
2. Post a lookout to keep the person overboard in sight.
3. Maneuver vessel to pick up the person in the water.
4. Have crew member put on life jacket and attach a life line to the crew member. Have the crew member stand by to enter the water to assist the person in the water, if necessary.
5. If person is not immediately located, notify local law enforcement and other vessels in vicinity by radio or telephone.
6. Continue search until released by local law enforcement.

### Rough Weather at Sea, Crossing hazardous bars, or Flooding

1. Close all watertight and weather tight doors, and hatches to prevent taking water aboard or further flooding the vessel.
2. Keep bilges dry to prevent loss of stability due to water in the bilges. Use power driven pump, hand pump and buckets to dewater.
3. Check all intake and discharge lines, which penetrate the hull, for leakage.
4. Passengers must don life jackets if the going becomes very rough, the vessel is about to cross a hazardous bar, or when otherwise instructed by the master.
5. Never abandon the vessel unless actually forced to do so.