

Time:

30 mins

## **Boat Safety Equipment Fire Extinguishers**

### **Key Concepts:**

#### **Main Teaching Points**

#### **1) Discuss the types of fire extinguishers required for various sizes of vessels.**

- a) Under 6m – one class 5BC fire extinguisher if the PC is equipped with an inboard gasoline engine, a fixed fuel tank of any size, or a fuel burning cooking, heating or refrigerating appliance
- b) Over 6m but under 8m – same as above.
- c) Over 8m but not over 12m – One class 10BC fire extinguisher, if PC is power driven, plus another class 10BC if the PC is equipped with a fuel burning cooking, heating or refrigerating appliance
- d) Over 12m but not over 20m – One class 10 BC fire extinguisher at each of the following locations:
  - at each access to any space where a fuel burning cooking, heating or refrigerating appliance is fitted
  - at the entrance to any accommodation space
  - at the entrance to the engine room.

#### **2) Discuss exemptions / prohibitions for various vessels**

- a) A personal watercraft is not required to carry a 5 BC fire extinguisher in accordance with sub (3) if every person aboard is wearing an approved PFD or lifejacket of appropriate size.
- b) A paddleboat or a watercycle is not required to carry a 5 BC fire extinguisher if every person aboard is wearing an approved PFD or lifejacket of appropriate size.”

## **Notes**

### **Quick Points**

	Requirements for Various Sizes of Pleasure Craft
	Exemptions / Prohibitions
	Examination Criteria

#### **Instructor note**

*Hydrostatic Testing—Pg 64 PCCC manual.*

#### **Types of Fire Extinguishers—**

PCCC Manual Pg 62

#### **Reference linked to LP**

Small Vessel Regulations (SVR)

<http://www.tc.gc.ca/acts/regulations/GENERAL/C/CSA/regulations/070/csa076/csa76.html> Part II

Safe Boating Guide Pg 49

<http://www.tc.gc.ca/BoatIngSafety/sbg-gsn/equipment.htm>

## Boat Safety Equipment

### *Fire Extinguishers – Continued*

#### **Rationalization:**

**Suggested Activities:** Tabletop exercise—Discuss boat systems (i.e. exhaust, ventilation, fuel and electrical) that may contribute to fires / explosions and the type of extinguisher A, B, C or D that could be used for each.

#### **Main Teaching Points**

##### ***Fire Extinguishers – Continued***

- 3) **Discuss examination criteria for fire extinguishers. Note: The fire extinguisher being examined shall be deemed void of its approval if the following criteria are not met:**
- a) Fire extinguisher must be approved by either:
    - Board of Steamship Inspection (Transport Canada);
    - Underwriters Laboratories (ULC) (manufactured in Canada);
    - British Board of Trade for Marine Use (manufactured in the United Kingdom); or
    - United States Coast Guard for Marine Use (manufactured in the United States);
  - c) Locking pin, seal and service tag not missing and in good order;
  - b) Numbers, classification and locations meet the requirements of the *Small Vessel Regulations*;
  - c) Tank (body) not corroded and in good condition;
  - d) Visual indicator (pressure gauge) shows it is fully charged; in the event no gauge is present a annual verification tag must be displayed;
  - e) Tap gently on the side of the body of a dry chemical fire extinguisher to feel the flow of the agent inside;
  - g) Hose, nozzle/horn not missing, not cracked and in good condition;
  - h) Valve assembly must be free from corrosion (perfect working condition);
  - i) Must be hydrostatically tested in accordance with NFPA 10.
  - j) Where the total capacity of two or more fire extinguishers equals that of the capacity of the class of fire extinguisher required by the regulations, the requirement (carriage/class) shall be deemed to have been met.

<b><i>Method of Evaluation &amp; Condition</i></b>	<b><i>Skill / Knowledge and Standard</i></b>
<b><u>Skill</u></b>	
Each candidate shall participate in a thorough examination of the required boat safety equipment demonstrating the inspection criteria for each and/or	<p>Candidates shall participate in an examination of boat safety equipment. In the case of a fire extinguisher check:</p> <ul style="list-style-type: none"> <li>• the condition of cylinder, discharge hose (nozzle not missing, not cracked) and indicator gauge (fully charged)</li> <li>• provide info on approvals and ratings.</li> <li>• locking pin, seal &amp; service tag not missing and in good order.</li> <li>• fire extinguishers should be shaken vigorously in the upside down position (approx... once per month) to prevent extinguishing agent from caking and hardening</li> <li>• valve assembly free from corrosion</li> <li>• Hydrostatically tested in accordance with NFPA 10</li> </ul>
<b><u>Knowledge</u></b>	
may be evaluated for these points by written examination.	<p>Each candidate shall state all compulsory boat safety equipment for vessels under 20 meters.</p> <p>Candidates shall ID situations where prohibition/exemptions may apply and ensure that numbers, classifications and locations meet the requirements of SVR</p> <p>Extinguisher- if PC is power driven, fitted fuel tank, equipped with fuel burning appliance. May not be mandatory if all POB are wearing</p>