

## LOCAL VESSELS ADVISORY COMMITTEE

### Introduction of Fast Speed Passenger Vessel Endorsement

#### Purpose

This paper seeks members' view on the proposed introduction of a new endorsement for the Local Certificate of Competency (LCoC) for coxswains and engine operators operating Class I vessels<sup>1</sup> with maximum cruising speed<sup>2</sup> above 20 knots, i.e. locally licensed fast speed passenger vessels (FSPVs).

#### Background

2. In 2015 the Marine Department (MD) commissioned BMT Asia to conduct a Risk Assessment on Fast Speed Locally Licenced Passenger Carrying Vessels (Study). The Study pointed out that a large portion of casualties around the world are attributed to human errors and proposed recommendations to strengthen training on recognizing and responding to potential risks. Amongst other findings, the Study also identified areas of improvement for the training, assessment, refresher and certification for the operators of FSPVs. Extract of the Study with Summary of the findings and recommendations are at **Annex 1**.

#### Existing system

3. In accordance with Regulation 47 of the Merchant Shipping (Local Vessels) (Certification And Licensing) Regulation (Cap. 548D), persons in charge of a local vessel are required to hold a valid and appropriate LCoC, namely LCoC as a Coxswain or an Engine Operator.

4. FSPVs operating Transport Department (TD) ferry routes, under Ferry Services Ordinance (Cap. 104), and passing through speed restriction zones may apply for a Miscellaneous Permit (Speed Restriction)<sup>3</sup> (Permit).

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<sup>1</sup> Class I vessels are primarily passenger carrying vessels, including ferry vessels and launches.

<sup>2</sup> Maximum cruising speed is the maximum sustainable speed of a vessel in normal operating conditions.

<sup>3</sup> Section 9 of Cap. 548F sets out the speed restricted zones around Victoria harbour and requires that a local

5. The Permit requires operators of High Speed Craft (HSC) to have a valid Type Rating Certificate (TRC) or at least two years' experience of operating HSC. The two years' experience requirement has, indeed, placed large operational entry barriers for the labour force of being able to operate a FSPV.

## **Objective and Proposal**

6. In adopting the recommendations of the Study geared with the objective of fine-tuning the Permit system to better ensure maritime safety and to resolve the problem of labour shortage in the FSPV industry, MD hereby proposes that operators of FSPVs are required to have an FSPV endorsement on their LCoC. The training to attain the FSPV endorsement will improve the competency and safety awareness levels of the operators.

7. The FSPV endorsement will be accepted in lieu of the Type Rating Certificate and the two years HSC experience for the application for the Permit.

## **FSPV Endorsement**

### *Criteria for receiving FSPV endorsement*

8. A candidate will be deemed competent to operate a FSPV and be granted the endorsement if he/she has satisfied the following criteria:

- (a) Part 1 - completed satisfactorily a MD approved FSPV Familiarisation Programme conducted by the company operating FSPV;
- (b) Part 2 - passed a Practical Ship Handling Skill Assessment administered by a MD examiner or a MD approved trainer; and
- (c) Part 3 - completed satisfactorily a MD approved Local Maritime Resource Management Course<sup>4</sup> conducted by either the company operating FSPV or third party institution (e.g. relevant Union or MSTI).

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vessel shall travel below the speed of 15 knots, between half hour after sunset and half hour before sunrise.

<sup>4</sup> Set of training procedures for use in environments where human error can have devastating effects, focuses on interpersonal communication, leadership, and decision making in the bridge of a vessel.

For companies operating a FSPV that do not have a training programme, the requirement mentioned in Part 1 and Part 2 may be replaced by a FSPV examination<sup>5</sup> conducted by MD. The contents of the FSPV Familiarisation Programme, Practical Ship Handling Skill Assessment and Local Maritime Resource Management Course are in **Annex 2**.

### *Validity and Revalidation*

9. The FSPV endorsement will be vessel type specific with a validity of two years. MD may revalidate the endorsement for another 2 years if the applicant could provide evidence of satisfactory safety record and continuous proficiency in the operation of FSPV by having at least five months of sea service in the preceding two years.<sup>6</sup>

10. For renewal of the endorsement at the end of the fourth year, in addition to having the required sea service and safety record, the applicant must complete a standalone Local Maritime Resource Management Course within 12 months before expiry of the endorsement.

11. MD will require an applicant to repeat all areas of training as specified in para. 8 to revalidate or renew an endorsement if:

- the holder has been prosecuted and found guilty of any marine offences resulting in fine; or
- the holder has received one Advisory Letter issued by MD within preceding two years.

### *Suspension of Endorsement*

12. MD may suspend an endorsement if the holder is found to be unfit to discharge his/her FSPV related duties whether by reason of incompetence, misconduct or has been seriously negligent in the discharge of his/her duties. The following are the proposed criteria for the suspension of a FSPV endorsement.

- if the holder has been prosecuted and found guilty of major marine offences resulting in fine or imprisonment; or
- the holder has received **two** advisory letters issued by MD within preceding two years.

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<sup>5</sup> FSPV examination will consist of oral and practical assessments, covering the elements in Part 1 and Part 2 of Annex 2.

<sup>6</sup> Benchmarked the revalidation requirement of Type Rating Certificates for River Trade Vessels.

13. The proposed changes to the Examination Rules for Local Certificates of Competency are attached in **Annex 3**.

### **Implementation on Local Vessels**

14. The Local Vessels Safety Section (LVSS) will identify ferry vessels and launches that fall into definition of FSPV in accordance with MD's database. For new vessels or existing vessels which MD does not have information on the maximum cruising speed, LVSS will invite ship owners to make a declaration for the speed of the vessel. The manning requirement on the Certificate of Survey (CoS) and a condition to the Operating Licence (OL) of FSPVs will be added accordingly as per paragraph 15.

15. MD will issue a notice specifying the requirement below.

“The coxswain and the engine operator of ferry vessels and launches that have a maximum cruising speed above 20 knots, in addition to having to hold a suitable and valid local certificate of competency as specified in regulation 47 of Cap 548D, must each also hold a valid ‘fast speed passenger vessel endorsement’ as defined in the rules made by the Director of Marine under section 16 of Cap 548.”

### **Transitional Arrangement**

16. Given due consideration that existing FPSV operators are already well experienced in the operation of their respective FSPV whilst allowing time for concerned companies to set up relevant courses for new FSPV operators, the following transitional arrangement is proposed to grant an endorsement to an existing operator if:

- (a) the operator has a valid type rating certificate already;
- or
- (b) the operator has at least 2 years' experience operating FSPVs with no accident or adverse records.

### **Consultation**

17. The above proposal has been endorsed by the Sub-committee on Class I and Class II Vessels at its 6<sup>th</sup> meeting held on 17 December 2021. It was agreed at the meeting that proposal would be submitted to the Local Vessels Advisory

Committee for discussion.

### **Way forward**

18. Members' views are sought on the proposed FSPV endorsement.

Marine Department  
Local Vessels and Examination Division  
December 2021

# **Risk Assessment on “Fast Speed” Locally-Licensed Passenger- Carrying Vessels**

## **Final Report**

Reference: R9147/05 Issue 3

Date: March 2016

Confidential



# **Risk Assessment on “Fast Speed” Locally-Licensed Passenger-Carrying Vessels**

## **Final Report**

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Position: Managing Director

Signature: 

Reference: R9147/05

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## 11 Summary

### 11.1 Definition of "fast speed"

A definition for the term "Fast Speed", be the maximum speed a craft be capable of; was proposed as "20 knots or above" on the basis that:

- Numbers of injuries resulting from incidents involving LLPCVs are much greater when involving vessels that can exceed 20 knots,
- From the stakeholder responses (from LLPCV coxswains), we considered that navigation in Hong Kong waters starts to become more stressful when vessel speed is at or above 20 knots.
- Other leading maritime authorities that have defined "fast speed" have adopted values of 20, 25 and 30 knots; among which the lower threshold of 20 knots may be most applicable to Hong Kong - given the high density of vessel traffic.

It is recommended a "fast speed" vessel exceeding a defined passenger capacity, with a consequence of higher risk should have additional safety measures.

### 11.2 Control Measures to Enhance the Safety of "fast speed" LLPCVs

Responding to safety issues revealed by local incident statistics, and concerns raised by industry stakeholders, the Study Team has reviewed and recommended a number of measures to enhance the safety of "fast speed" LLPCVs, reflecting both international best practice and local conditions.

The recommended measures apply to three aspects of vessel operations:

- Equipment provision
- Operational standards
- Seafarer standards

The measures are proposed for application to "Fast Speed" ( $\geq 20$  knots) LLPCVs and according to their passenger capacity. Related measures have been grouped into packages, each of which includes measures of strategic importance. The following packages of measures are proposed:



**Table 11-1 Safety Measure Focus Area Application**

Package	Measures of Strategic Importance
OPERATIONAL STANDARDS	<p><b>Develop a user guide</b> aimed at LLPCVs in general, with specific information (or chapter) devoted to "fast speed" LLPCV coxswains/crew/ operating companies.</p>
	<p><b>Implementation of a simplified Safety Management System.</b> The system should suit the needs of the LLPCVs and the local operating environment, and be implemented for HSC-built vessels initially and then progressively moved to cover larger vessels (&gt;100 pax) and others. It is noted that the contents of simplified Safety Management System shall be developed under separate exercise.</p>
SEAFARER STANDARDS	<p><b>Training on recognising and responding to potential collision situations.</b> The training applies to Grade 1 coxswains operating a "fast speed" Class 1 vessel with LOA greater than 26.4 metres and Grade 1 PV operators operating a "fast speed" PV let for hire or reward with LOA 15 metres or greater.</p>
	<p><b>Practical assessment for operating "fast speed" LLPCVs,</b> including dealing with hazardous situations, emergency drills, etc, applying initially to coxswains of larger sized "fast speed" LLPCVs (&gt;100 pax).</p>
	<p><b>Require crews of 'fast speed' vessels to hold type rating certificates</b> for the vessels they operate. It will help ensure coxswains fully understand the capability and behaviour and how to control their vessel. Most coxswains probably already have this level of awareness, but this measure will eliminate any cases where they do not. Recommended for coxswains of all &gt;100 pax "fast speed" LLPCVs.</p> <p><b>One day Refresher courses for coxswains of "fast speed" LLPCVs,</b> which coxswains would have to attend periodically.</p>
EQUIPMENT PROVISION	<p><b>Radar reflector</b> to be fitted if there is a possibility the vessel may not be picked up by other vessel's radar systems.</p>
	<p><b>Provision of AIS that supplement radar</b> for all "fast speed" LLPCVs.</p>

## Criteria for receiving Local Fast Speed Vessel (FSPV) endorsement

### Part 1: FSPV Familiarisation Programme

#### Framework

- a. Service routes, the operational limitations of the vessel and of any operating conditions and restrictions imposed by the Marine Department (MD).
- b. Structure and layout of the vessel, including stability conditions and bilge pumping arrangements.
- c. Working knowledge of the operation of the following systems :
  - (i) Propulsion and associated systems.
  - (ii) Electrical system.
  - (iii) Fire protection system.
  - (iv) Navigation and communications systems.
  - (v) Ship control systems.
- d. Emergency contingency procedures to return control in the event of failure in control, steering and propulsion systems.
- e. Knowledge of the significance of and correct response to alarms and caution indicators on all wheelhouse instrumentation.
- f. Knowledge of bridge procedures.
- g. Knowledge of the use of life-saving and fire-fighting appliances on board and the arrangements for mustering, evacuating passengers and crew members in the event of an emergency.
- h. Knowledge of cargo and vehicle stowage securement systems (for cargo high speed craft only).
- i. Practical Ship handling training.
- j. Low visibility training.

#### Course monitoring

Approved courses will be subject to the MD course monitoring program. MD will carry out course audit every 3 years to assess if the course has been carried

out in accordance with the above framework.

## **Part 2: Practical Ship Handling Skill Assessment**

The practical ship handling skill assessment can be conducted by MD or an approved trainer. The trainer must possess a minimum 3 years of experience for that ship type, has a good safety record and has been endorsed by the concerned company operating FSPV.

### **(1) Coxswain**

#### **Pre-departure checks**

- Navigational/communications equipment, alarms.

#### **Observing rules of navigation with due regard to vessel's characteristics**

- Safe speed: factors to consider including but not limiting to manoeuvrability; stoppage distance; sea state; appropriateness to the prevailing circumstances and conditions etc.
- Look out: candidate shall be competent in using sight/hearing/radar to identify risks. Be able to use target monitoring of ARPA and demonstrate positive reporting in order to avoid collision.
- Action to avoid collision: candidate shall demonstrate ability to alter course to avoid collision and be readily apparent to other vessels. Factors to assess include control of vessel, timeliness of actions, observance of good seamanship such as choosing to slow down/ stop. Candidate shall demonstrate good seamanship in different scenarios such as when obstacles / risks are in sight, not in sight, head on or crossing.

#### **Control of ships**

- The use of different mode of controls such as common, separate, autopilot or back up and the proper procedure for switching mode of controls.

#### **Bridge team Dynamics**

- Positive Reporting to proactively identify potential risks.
- Proper takeover/handover procedure and be aware of operations on vessel.
- Familiarisation of the duties and responsibilities of bridge team members.

## **Communications/Reporting**

- Communication and relay commands in a clear and accurate manner.
- The ability to give clear and concise orders to passengers via the Public Announcement system during emergencies.

## **Emergency Drill**

- Competent in the safe handling of emergency situations; procedures of abandon ship drill and fire drill. Factors to consider include: ability to give out correct orders and instructions and knowledge of emergency systems.

## **(2) Engine Operator**

### **Pre-departure checks**

- Equipment, alarms, function tests and batteries.

### **Observing Machinery Parameters**

- Knowledge of the operating range of machineries and how to handle abnormal parameters.

### **Control of ships**

- The use of different mode of controls such as common, separate, automated mode or back up. The proper procedure for switching mode of controls.
- Changeover of operation from main to back up.
- Starting of main engine and generators
- Starting main engine and generators from emergency position or back up method.
- Bilge pumping arrangements
- Knowing how to isolate steering and engage emergency steering manually.

### **Emergency Drill**

- Competent in the safe handling of emergency situations. Procedures of abandon ship drill and fire drill. Factors to consider include: ability to give out correct orders and instructions and knowledge of emergency systems.

### **Part 3: Local Maritime Resource Management Course**

The following framework for the Local Maritime Resource Management Course seeks to enhance and refresh candidate's safety awareness and ability to prevent/handle emergencies.

#### **Aim**

The course aims to strengthen vigilance of FSPV operators. The course will serve as a prerequisite for the MD to issue FSPV endorsement.

#### **Objective**

Those who have satisfactorily completed the course should be able to demonstrate the knowledge including but not limited to, updated information on operating conditions and restrictions imposed by MD, including:

- how to recognize chain of events leading to accidents;
- how to analyse sequence of events leading to accidents;
- what actions to take to prevent accidents;
- how to handle marine accidents; and
- how to communicate effectively and work effectively as team;

#### **Course Delivery**

The outcome of this course may be achieved through various means including classroom training, distance learning, computer-based training, in-service training or a combination of the aforementioned methods. The course should make use of case studies of accidents which are applicable to FSPV operators.

#### **Staff Requirements**

The instructor in charge of the course should have adequate experience in FSPV operations and knowledge of the syllabus in Part 3. It is also recommended that instructors should have adequate knowledge in course delivery and teaching methods.

## **Syllabus**

- ✧ Judgment, Decision Making and Leadership in Emergencies
- ✧ Crisis and Crowd Management
- ✧ Communications and briefings
- ✧ Situational Awareness
- ✧ Human Involvement in Error
- ✧ Attitudes and Management Skills
- ✧ Lessons or experience learned from recent casualties, accidents and breakdowns.

## **Assessment**

The instructor should assess each candidate's familiarity of the risks associated with FSPVs.

## **Course monitoring**

Approved courses will be subject to the MD course monitoring program. MD will carry out course audit every 3 years to assess if the course has been carried out in accordance with the above framework.

## **(A) Amendment to the Examination Rules for Local Certificates of Competency**

The following new chapter is added after the existing Chapter 10:

### **Chapter 11**

#### **ENDORSEMENT FOR FAST SPEED PASSENGER VESSEL (FSPV)**

##### **11.1 General**

- 11.1.1 An officer manning the station of Coxswain, Assistant Coxswain or Engine Operator on a Class I vessel that has a maximum cruising speed above 20 knots shall in addition to holding the appropriate local certificate of competency, be required to have a valid FSPV Endorsement (“Endorsement”) for the type and model of craft on which he/she intends to serve. Officers manning other stations on the FSPV are also required to have an Endorsement if considered necessary by the Director.
- 11.1.2 In order to qualify for the issue of an Endorsement an applicant must:-
- (a) hold an appropriate local certificate of competency issued under the Merchant Shipping (Local Vessels) (Local Certificates of Competency) Rules;
  - (b) have satisfactorily completed a recognized FSPV Familiarisation Programme, as specified in paragraph 11.4, on the type and model of FSPV for which the Endorsement is required;
  - (c) pass an recognized Practical Ship Handling Assessment (“Assessment”) specified in paragraph 11.5;
  - (d) have satisfactorily completed a recognized Local Maritime Resource Management (LMRM) Course specified in paragraph 11.6; and
  - (e) have satisfactorily completed a radar training course recognized by the Marine Department (for coxswain and assistant coxswain only).

11.1.3 For applicants who wish to operate an FSPV that does not have a recognized Familiarisation Programme and recognized Assessment specified under 11.1.2 (b) and 11.1.2 (c), the requirement may be replaced by an examination conducted by the Marine Department.

11.1.4 Transitional Arrangement for existing FSPV operators prior **XXX**. Before 31 December 2022, existing FSPV operators may be qualified for the issue of an Endorsement for a type and model of a vessel if they have:

(a) a valid type rating certificate for the specific type and model of the FSPV; or

(b) at least 2 years experience operating that type and model of FSPV with no adverse safety records specified in 11.2.3(a) and 11.2.3(b).

## **11.2 Validity and Revalidation**

11.2.1 An Endorsement will expire at the end of 2 years after the day on which it is granted. Thereafter it will fall due for further extension on each second anniversary of the date of extension.

11.2.2 Endorsement holders who wish to extend the validity of their Endorsement must:-

(a) produce evidence of at least five months service in the appropriate rank in the type and model of FSPV to which the FSPV Endorsement applies, during the preceding two years; and

(b) at four yearly intervals (i.e. second, fourth and sixth revalidation etc) completed an LMRM Course specified in paragraph 11.6, within 12 months before the expiry of the Endorsement.

11.2.3 Endorsement holders will be required to repeat the trainings and assessment specified in 11.1.2 (b), (c) and (d) to revalidate an Endorsement if :

(a) the holder has been prosecuted and found guilty of any marine offences resulting in fine; OR



- (b) the holder has received ONE maritime safety related advisory letter issued by the Marine Department, within the preceding two years.

### **11.3 Suspension**

- 11.3.1 An Endorsement will be suspended if the holder has been prosecuted and found guilty of major marine offences resulting in fine or imprisonment; OR the holder has received TWO maritime safety related advisory letters issued by the Marine Department within the preceding two years.

### **11.4 FSPV Familiarisation Programme**

- 11.4.1 The Familiarisation Programme (Programme) for the FSPV Endorsement will comprise of a combination of theoretical and practical teaching based on the type and model of craft which the Endorsement refers. The syllabus specified in paragraph 11.4.2 is written in general terms. A detailed syllabus for a particular type and model of craft will be agreed with each operating company.

#### **11.4.2 Syllabus for Programme**

- (a) Service routes, the operational limitations of the vessel and of any operating conditions and restrictions imposed by the Marine Department (MD).
- (b) Structure and layout of the vessel, including stability conditions and bilge pumping arrangements.
- (c) Working knowledge of the operation of the following systems :
  - (i) Propulsion and associated systems.
  - (ii) Electrical system.
  - (iii) Fire protection system.
  - (iv) Navigation and communications systems.
  - (v) Ship control systems.
- (d) Emergency contingency procedures to return control in the event of failure in control, steering and propulsion systems.
- (e) Knowledge of the significance of and correct response to alarms and

caution indicators on all wheelhouse instrumentation.

- (f) Knowledge of bridge procedures.
- (g) Knowledge of the use of life-saving and fire-fighting appliances on board and the arrangements for mustering, evacuating passengers and crew members in the event of an emergency.
- (h) Knowledge of cargo and vehicle stowage securement systems (for cargo high speed craft only).
- (i) Practical Ship handling training.
- (j) Low visibility training.

## **11.5 Practical Ship Handling Skill Assessment**

- 11.5.1 The Assessment for the issue of an Endorsement will be carried out on board the type and model of craft to which the Endorsement refers. The syllabus specified in paragraph 11.5.3 is written in general terms. A detailed syllabus for a particular type and model of craft will be agreed with each operating company.
- 11.5.2 The Assessment can be conducted by Marine Department or a Marine Department approved trainer. The trainer must possess a minimum 3 years of experience for that ship type, has a good safety record and has been endorsed by the concerned company operating FSPV.
- 11.5.3 Syllabus for Test
  - (a) Pre-departure checks
  - (b) Observing rules of navigation with due regard to vessel's characteristics
  - (c) Control of ships, berthing and de-berthing of vessel
  - (d) Bridge team Dynamics
  - (e) Communications/Reporting, commands should be precise/accurate/clear/ know what to say. Control of communication with passengers during emergency.

- (f) Emergency Drill - Conduct abandon ship drill and fire drill, activate fire fighting system

## **11.6 Local Maritime Resource Management Course**

11.6.1 The LMRM course is generic course for all FSPV operators. FSPV Endorsement holders will be required to complete the LMRM course at four yearly intervals. The syllabus specified in paragraph 11.6.2 is written in general terms. A detailed syllabus will be agreed with each course provider.

11.6.2 Syllabus for LMRM course

- (a) Judgment, Decision Making and Leadership in Emergencies
- (b) Crisis and Crowd Management
- (c) Communication and briefings skills
- (d) Situational Awareness
- (e) Human Involvement in Error
- (f) Attitudes and Management Skills on Bridge
- (g) Lessons or experience learned from recent casualties, accidents and breakdowns.

## **11.7 Application for FSPV Endorsement**

11.7.1 Application for FSPV Endorsement should be made in writing to:

River Trade and Local Examination Section  
Marine Department  
3/F., Harbour Building  
38 Pier Road  
Central  
Hong Kong

Email: [ssrtl@mardep.gov.hk](mailto:ssrtl@mardep.gov.hk)

11.7.2 Each application for new issue of Endorsement should be accompanied by a completed application form obtainable from the Marine Department River Trade and Local Examination Section together with:-

- (a) a copy of local certificate of competency;
- (b) a copy of radar training certificate (for coxswains and assistant coxswains only);
- (c) a copy of LMRM course certificate;
- (d) a copy of Familiarisation Programme Certificate; and
- (e) record of satisfactory completion of Practical Ship Handling Skill test.

**(B). Amendment to the Merchant Shipping (Local Vessels) (Local Certificates of Competency) Rules - Schedule 2 Endorsements on Local Certificates of Competency**

The following endorsement will be added to the list of existing endorsements for Coxswains (grade 1,2 and 3) and Engine Operators (Grade 1,2 and 3).

*The holder of this certificate may operate the type(s) of Fast Speed Passenger Vessel as designated on the FSPV Supplement. This endorsement is only valid when presented with the FSPV Supplement. This endorsement expires on the expiry date of the FSPV Supplement.*