



Exploration & Production

GENERAL SPECIFICATION

Logistics and Operational Support

GS EP LSO 203

**Terminal pilots – Terminal tug master:
qualification, certification and training**

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1. Scope

Maritime Pilotage uses specialized local knowledge to direct and control the movement of a vessel on passage to and from a berth and during mooring and unmooring of the vessel at loading and off-loading facilities unfamiliar to the vessel's master or, providing navigation advice to the master for this purpose.

The pilot is expected to have an in-depth knowledge of the local geography, climate, traffic patterns and the loading and off-loading facilities.

For loading and off-loading operations, oil and gas tankers may be moored at different types of facilities which can be fixed, for example jetties and quays within a port or, floating offshore installations such as SPM, FPSO, FSO and FPU. Mooring at FPSO's and FSO's can be in tandem or side by side.

The purpose of this document is to define in line with Total Company rules and **OCIMF International Best Practice for Maritime Pilotage**, the minimum requirements in relation to qualifications, certification and training for marine terminal pilots and terminal tug masters.

Under no circumstances will these requirements replace or supersede the rules and regulations as laid down by the National Competent Pilotage Authorities in relation to the qualification, certification and training of terminal pilots or **IMO A.960(23)** recommendations on training and certification and operational procedures for maritime pilots other than deep-sea pilots.

2. Reference documents

The reference documents listed below form an integral part of this General Specification. Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the EFFECTIVE DATE of the CONTRACT.

Standards

Reference	Title
Not applicable	

Professional Documents

Reference	Title
OCIMF International Best Practice for Maritime Pilotage	International Best Practice for Maritime Pilotage



Regulations

Reference	Title
IMO STCW 95	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
IMO A.960(23)	Recommendations on training and certification and operational procedures for maritime pilots other than deep-sea pilots.
IMO COLREG 72	International Convention on the International Regulations for Preventing Collisions at Sea.

Codes

Reference	Title
Not applicable	

Other documents

Reference	Title
Not applicable	

Total General Specifications

Reference	Title
Not applicable	

3. Qualification, certification and experience

3.1 Terminal Pilot

3.1.1 Qualification – Certification

The terminal pilot shall:

- Be the holder of a valid IMO STCW 95 deck officer class 1 certificate, unlimited
- Have an appropriate tanker endorsement at first appointment
- Be the holder of an appropriate Pilotage certificate or license and issued by the National Competent Authority of the country or area as applicable
- Be the holder of a medical fitness certificate in accordance with IMO STCW 95 convention, National or Company regulations whichever is the most stringent.



3.1.2 Experience

The terminal pilot shall:

- Have a minimum experience of thirty (30) months on board service as senior deck officer (Chief Officer or above) on board of AFRAMAX tankers or larger
- Be familiar with the area of operations, its navigational hazards and/or obstructions and its environmental conditions
- Be familiar with the operation of terminal tugs
- Be fluent in written and spoken English
- Have attended a specific simulator training course for terminal pilots
- Have carried out a defined number of berthing, un-berthing operations under supervision of an experienced terminal pilot.

3.2 Terminal tug boat Master

3.2.1 Qualifications and certifications

The terminal tug boat master shall:

- As a minimum be holder of a valid **IMO STCW 95** deck officer class II certificate
- Be holder of medical fitness certificate accordance with **IMO STCW 95** convention, National or Company regulations whichever is the most stringent.

3.2.2 Experience

The terminal tug boat master shall:

- Have a minimum experience of five (5) years as senior officer on board of terminal tugs or similar vessels of which minimum two (2) years as Master
- Be familiar with the area of operations, its navigational hazards or obstructions and its environmental conditions
- Be fluent in written and spoken English
- Have followed a specific simulator training for terminal tug boat masters
- Have carried out a defined number of berthing, un-berthing operations of tankers at a single point mooring under supervision of an experienced terminal tug boat captain.

4. Training

No terminal pilot or terminal tug boat master shall be appointed without completing appropriate training. Training should consist of two parts:

- Simulator training
- On the job training.



4.1 Responsibilities

It is the affiliate's responsibility to ensure that terminal pilots and terminal tug boat masters have the required training.

OPS/LSO Marine will assist the Affiliates with the organization of the simulator training at a OPS/LSO Marine accredited training center.

4.2 On the job training

4.2.1 Terminal Pilots

Prior being in charge of berthing and un-berthing operations at a terminal, the trainee terminal pilot will follow on the job training program as listed below:

- Attend a minimum of fifteen (15) berthing and un-berthing operations of a tanker at the loading/off-loading terminal carried out by an experienced/approved terminal pilot. This number can be reduced to six provided the trainee terminal pilot has successfully completed a terminal specific simulator training as described in 4.3 before commencement of the second part of the on the job training.
- Carry out at least five (5) berthing and un-berthing operations of a tanker at the loading / off-loading terminal under supervision of an experienced / approved terminal pilot. The supervision of the berthing and un-berthing shall be done by at least two different experienced /approved terminal pilots.
- On completion of the on the job training program, the experienced /approved terminal pilots will evaluate the trainee terminal pilot and submit their evaluation report to OPS/LSO Marine for final approval of appointment.

4.2.2 Terminal tug Masters

Prior taking command of a terminal tug, a trainee terminal tug master not having any experience at the terminal shall:

- Attend at least three (3) berthing and un-berthing operations at the terminal carried out by an experienced / approved terminal tug boat master.
- Carry out least three (3) berthing / un-berthing operations under supervision of an experienced/approved terminal tug boat master.
- On completion of the training noted above, the experienced/approved terminal tug boat master will evaluate the trainee tug boat master and submit a report to OPS/LSO Marine for final approval of appointment.

4.3 Simulator training

4.3.1 General information

A terminal designed simulator training program shall be arranged for at an OPS/LSO Marine accredited training center.



The simulator will incorporate all the local features of a terminal location and include environmental conditions relevant to the terminal. This information shall be provided by the Affiliate concerned.

The purpose of the terminal designed simulator training is to allow future terminal pilots and tug masters to become familiar with the terminal, its environment and to simulate various terminal environmental conditions and emergency situations.

The simulator training(s) shall be designed for FPSO, FSO, SPM, FPU or jetty mooring systems as might be the case and shall respect the prevailing **IMO COLREG 72** as applicable;

It is recommended that simulator training is completed prior to commencing the second part of the on the job training.

Manned model training is also considered as simulator training.

4.3.2 Accredited Training Center

An accredited training center is a center specialized in giving tailored simulator training for terminal pilots and terminal tug masters. The center has been audited and approved by OPS/LSO Marine and found suitable to provide the training in respect to industry and Company standards and procedures.

The training center shall have:

- A full mission bridge simulator
- A simulator bridge for free sailing human operated tugs
- An optional additional mission bridge simulator.

Each simulator bridge must be capable of interacting with each of the other simulator bridges.

The accredited training center should have the capability to carry out studies in order to prepare training simulator programs for new ports or off-shore terminals and evaluation of existing terminals to assess the likely impact of any proposed changes.

Affiliates requiring terminal pilot training will select an OPS/LSO accredited training center which is nearest to their area of operation.

If an affiliate wishes to use a non-accredited training center, the affiliate shall request OPS/LSO Marine to arrange for an audit of the training center in order to obtain accreditation.

4.3.3 Simulator training programs

Three types of simulator training programs shall be available at an accredited training center for terminal pilots and terminal tug masters:

- Simulator training for existing ports or off-shore terminals for new recruited pilots and tug masters
- Simulator training for new ports offshore terminals, irrespective of the experience of pilots and tug boat masters concerned
- Refresher simulator training for terminal pilots and tug masters.

The training centre should also be capable of providing simulator training for new projects.

The duration of a training session shall be 5 working days and start on Monday morning and finish on Friday afternoon.



The training program shall be based on the following example:

Day 1:

- A session on bridge resource management which shall include a requirement for the pilot to assess particular situations and to conduct an exchange of information with the master and/or officer in charge of the navigational watch
- A session designed to develop an effective working relationship between the pilot and the bridge team in both routine and emergency conditions
- A familiarization session which allows the participants to become familiar with the simulator installation followed by real time simulations.

Days 2, 3 and 4:

- Simulations covering routine operations
- Simulations covering operations at the operational envelop limit
- Simulations covering likely emergency scenarios.

Day 5:

- Simulations covering likely emergency scenarios
- Assessment of the trainees.

Each simulation run shall start with a short briefing of the pilots regarding the environmental conditions and the maneuver. After each simulator run, a short debriefing shall be held regarding the simulator exercise. An exercise report shall be made up by the simulator training center for each exercise and will include comments from the pilots and instructors.

It is recommended that refresher simulator training should include a module on new bridge equipment and navigation aids.

4.3.4 Simulator training assessment

The assessment of the trainees shall be done on the last day of the training and will consist of two parts:

- Observations of the simulator instructor(s) during the training
- A dedicated simulation in which the trainee is observed by two assessors.

Observations during the training are made to monitor the progress of the trainees and also to check if the outcome of the assessment is in accordance with the observations made during the training. The instructor(s) shall prepare an observation report for each trainee before the final assessment run starts.

Each trainee will complete identical simulations for the assessment process and will be observed and assessed by two assessors. One of the assessors shall be the simulator instructor; the second assessor shall be appointed by OPS/LSO Marine. Each assessor shall follow a predefined assessment protocol.

A certificate shall be issued by the training center to successful trainees.



4.3.5 Simulator training obligations and frequency

Simulator training for existing ports or off-shore terminals for new recruited pilots and tug masters is recommended.

Simulator training for new ports offshore terminals, irrespective of the experience of pilots and tug boat masters concerned is compulsory.

Refresher simulator training is compulsory.

Refresher training shall be carried out as follows:

Terminal Pilots	Every three (3) years irrespective of the number berthing and un-berthing operations carried out.
Terminal Tug Masters	Every five years providing at least 6 berthing and un-berthing operations are carried out each year. If the minimum number of berthing and un-berthing operations is not completed then refresher training shall be carried out every three (3) years.

It is strongly recommended that refresher training for pilots is held in conjunction with the one for tug masters in order to improve their interaction.



Appendix 1 Accredited training center

MARIN Nautical center MSCN

2, Haagsteeg

P.O.Box 28

6700 AA Wageningen

The Netherlands



Appendix 2 Definitions and acronyms

OCIMF	Oil Companies International Marine Forum
FPSO	Floating Production Storage Offloading
FSO	Floating Storage Offloading
SPM	Single Point Mooring
Terminal Pilot	The competent person, who uses specialized local knowledge, employed by the Company (and approved by the National competent authority as required) responsible for the berthing and un-berthing of tankers (oil and/or LNG) at the loading/off-loading facilities.
Terminal tug boat master	The terminal tug boat master is the competent person in command of the tug boat assisting the berthing and un-berthing of a tanker at the loading /off-loading facilities or his designated deputy (chief officer).