

Pilotage Standard – Port of Darwin

Technical and Safety Standards for Pilotage and the
Provision of Pilotage Services

Marine Safety



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1. Preface

The objective of the Technical and Safety Standards for Pilotage and the Provision of Pilotage Services for the port of Darwin (the Pilotage Standard) is to detail licensing and training requirements which result in licensed marine pilots with the knowledge, skills and competencies to safely pilot vessels in the port of Darwin.

The Pilotage Standard provides details of licensing and training requirements for issue of pilot exempt certificates for the Port of Darwin.

The pilotage standard also specifies safety management system and compliance audits requirements for pilotage service providers so as to provide a safe pilotage service for the port.

The pilotage standard was developed in consultation with Darwin Port and organisations employing Masters holding pilotage exemption certificate.

This Pilotage Standard will be reviewed every 2 years or as deemed necessary by the pilotage authority.



Captain. Anil Chadha

Regional Harbour Master - Port of Darwin
Pilotage Authority - Port of Darwin

Date of issue: 17 June 2022

Date of the pilotage standard coming into force: 22 June 2022

2. Preamble

2.1. Title

Technical and Safety Standards for Pilotage and the Provision of Pilotage Services for the port of Darwin (the Pilotage Standard).

2.2. Authority

The Pilotage Standard is made by the pilotage authority for the port of Darwin pursuant to Section 67 of the *Ports Management Act 2015*.

2.3. Application

The Pilotage Standard set the technical and safety standards for pilotage and the provision of pilotage services in relation to the port of Darwin and apply to:

- the port operator for the port of Darwin pursuant to Section 8 of the *Ports Management Act 2015*;
- the pilotage services provider for the port of Darwin pursuant to Section 85 of the *Ports Management Act 2015*; and
- Master as defined in section 7(1) of the *Marine Act*.

2.4. Applicable legislation

- *Navigation Act 2012 (Commonwealth)*
- *Marine Act 1981*
- *Marine (General) Regulations 2013*
- *Ports Management Act 2015*
- *Ports Management Regulations 2015*
- *Work Health and Safety (National Uniform Legislation) Act 2011*
- *Marine Pollution Act 1999*
- *Marine Pollution Regulations 2003*
- *Waste Management and Pollution Control Act 1998*

2.5. Objective

The objective of this document is to make technical and safety standards for pilotage and the provision of pilotage services in relation to the port of Darwin. The Pilotage Standard describes the:

- minimum standards to be met by the pilotage services provider;
- privileges of use of a pilot licence;
- requirements to be met in order to obtain, upgrade or revalidate a pilot licence;
- privileges of use of a pilotage exemption certificate; and
- requirements to be met in order to obtain, upgrade or revalidate a pilotage exemption certificate.

3. Definitions

In the Pilotage Standard:

AIS – means an Automatic Identification System.

Assessment panel – means an assessment panel comprising of Regional Harbour Master, an assessor with maritime or pilotage qualifications and a check pilot of a pilotage service provider to conduct pilotage assessment of a pilot.

Assessment trip – means an assessment trip conducted by a Licenced Pilot on board a vessel to assess the Pilot Exempt Master or Towage Pilot Exempt Master Candidate's knowledge, skills and competence in piloting and berthing the vessel or vessel and barge combination through the zones of compulsory pilotage area. The pilotage Authority at its discretion may allow a PEC Master to conduct assessment trip for clause [17.2.4.4](#)

Check pilot – means a pilot who holds a Fully Endorsed pilot's licence for the Port and is approved as a check pilot by the Pilotage Services Provider and the pilotage authority.

Chief mate – means the deck officer next in rank to the master. The terms 'first mate' and 'chief officer' are taken to have the same meaning.

Check trip assessment – means an assessment trip conducted by a check pilot on board a vessel to assess the pilot licence candidate or a pilot's knowledge, skills and competence for piloting and berthing a vessel.

Fatigue – means a physical condition manifest as impaired physiological performance (e.g. reaction time, hand-eye coordination) and psychological functions (e.g. morale, judgement or mood).

Full tug movement - means a movement of a tug assisting a vessel from the time the tug is called for by the pilot to the time the tug is released by the pilot as the tug's assistance is no longer required.

IMO – means the International Maritime Organisation.

Length – means;

For all domestic and international registered vessels, the length shown on the registration certificate, or

For Domestic Commercial Vessels that are not otherwise registered, the length specified on DCV survey certificate.

In the case of tug and tow combinations, the combined length of the tug and the object being towed excluding tow lines, wires and bridals.

Master – means the person having lawful command or charge of the vessel, but does not include a pilot. (*Marine Act 1981, Part 1, section 7*)

Navigational control – means conduct of the navigation of the vessel; that is, monitoring the vessel's position relative to the passage plan, controlling wheel and telegraph orders and conducting berthing or unberthing of a vessel.

Pilot – means any person, not being the master or a member of the crew of the ship, who is an employee of and has been allocated by the Pilotage Services Provider, is in possession of a pilot licence for that port and has pilotage charge of the ship.

Pilotage charge – means the act of taking navigation control of a ship within the compulsory pilotage area, either by a pilot or the holder of a pilotage exemption certificate.

Pilotage authority – pursuant to Section 66 of the *Ports Management Act 2015*, means the person who is, or is appointed to be, the Regional Harbourmaster for the port of Darwin pursuant to Section 19 of that Act.

Pilotage exemption certificate (PEC) – means a valid (or current) certificate issued under Part 8, Division 4 of the *Ports Management Act 2015* to a ship's master which exempts that person from the need to take on board a pilot in the port of Darwin for the applicable zone/s.

Pilot licence – means a valid (or current) licence issued under Part 8, Division 4 of the *Ports Management Act 2015* to an employee of the pilotage services provider by and in accordance with the requirements of the pilotage authority.

Pilot licence candidate – means a candidate who has been employed by the Pilotage Services Provider and is working towards their initial pilot licence

Pilotage services provider (PSP) – means a person appointed by the Minister under section 85 of the *Ports Management Act 2015* to be a pilotage services provider for the port of Darwin. The Pilotage Services Provider carries on the operation of providing pilotage services.

Port of Darwin – means the area of water and land designated as the port of Darwin under section 7 of the *Ports Management Act 2015*.

Port operator – means the entity declared by the Minister under section 8 of the *Ports Management Act 2015* to be the operator of the port of Darwin.

Regional harbourmaster (RHM) – means the person appointed to be the regional harbourmaster for the port of Darwin under section 19(1) of the *Ports Management Act 2015*.

Trip – means a passage through the full zones for which a PEC or Pilot Licence is required. Movement through the edges or passing through limited area of the zone does not count as a trip.

Tug and tow – means a ship towing or pushing another ship.

Vessel - as defined in *Ports Management Act 2015 and its associated regulations*

4. Pilotage framework

4.1. Compulsory pilotage

- 4.1.1. Pursuant to section 68 of the *Ports Management Act 2015* and NT Government Gazette S73 of 1 July 2015, pilotage is compulsory;
- In the Outer Pilotage Area from north of the parallel of latitude 12° 25' 00" S covering the pilotage area within the port of Darwin below the high water mark (northern limit is 12 degrees 18 minutes 11 seconds approximate).
 - In the Inner Pilotage Area from south of the parallel of latitude 12° 25' 00" S covering the pilotage area within the port of Darwin below the high water mark
 - any vessel that is less than 200 m in overall length or with a draught of less than 10.7 m is an exempt vessel for the outer pilotage area within the Port of Darwin
 - Any vessel that is less than 35 m in overall length is an exempt vessel for the inner pilotage area within the Port of Darwin
- 4.1.2. All vessels of 35 metres length or greater south of 12° 25'S must either carry a licenced pilot or be under the lawful command of a master who holds a pilotage exemption certificate endorsed for the appropriate zones of the Port and for the vessel being navigated within those zones.

4.2. Pilotage zones

The pilotage area of the port of Darwin is divided into 7 pilotage zones as follows:

- **Zone A** – Outer Harbour Zone; Bounded by a line joining Charles Point and Lee point through a position 12°18.2'S 130°41.1'E, in the north, and a line joining Talc Head and Emery Point in the south.
- **Zone B** – City Zone; Bounded by a line joining Talc Head and Emery Point, in the north, and a line joining Talc Head and eastern end of Stokes Hill Wharf, via Wickham Point, in the south.
- **Zone C** – East Arm Zone; Bounded by a line joining Wickham Point and the entrance to Reichardt Creek, via the eastern end of Stokes Hill Wharf, in the west and north and a NE/SW line passing through South Shell Island, in the south.
- **Zone D** – Middle Arm Zone; That area of the port upriver of a line joining Talc Head and Wickham Point.
- **Zone E** – Frances Bay Zone; That area of the port north of a line from the eastern end of Stokes Hill Wharf to the entrance to Reichardt Creek.
- **Zone F** – Hudson Bladin Zone; That area of the port upriver of a NE/SW line passing through South Shell Island.
- **Zone G** – Marine Supply Base; Connects zone C to the Marine Supply Base (MSB) berths and is specific for exempt Master for these berths. The zone commences at beacon B03 and buoy number 16 and follows the channel into the Marine Supply Base.

Figure 1 – Pilotage zones of the Darwin compulsory pilotage area



4.3. Regional Harbourmaster

- 4.3.1. The Regional Harbourmaster is appointed by the Minister to perform regulatory functions as required by the *Ports Management Act 2015*. The Regional Harbourmaster for the port of Darwin is the pilotage authority for the port of Darwin.

4.4. Pilotage authority

4.4.1. The pilotage authority:

- 4.4.1.1. May declare pilotage as compulsory in the whole or specified parts of a pilotage area for which it is the pilotage authority;
- 4.4.1.2. May require the master of a ship to take on a licenced pilot pursuant to the section 69, Special Pilotage Requirements, of the *Ports Management Act 2015*;
- 4.4.1.3. Issues or revalidates pilot licences and pilotage exemption certificates;
- 4.4.1.4. Suspends or cancels pilot licences or pilotage exemption certificates pursuant to section 78 of the *Ports Management Act 2015*, Suspension or Cancellation; and
- 4.4.1.5. May initiate an inquiry into misconduct by a licenced pilot pursuant to section 82 of the *Ports Management Act 2015*, Inquiry into Misconduct by Licenced Pilot.

4.4.2. The pilotage authority may wish to attend and observe an act of pilotage. In such cases, the pilotage authority will advise the pilotage services provider in writing no later than 12 hours before the pilotage act. The pilotage authority may wish to:

- 4.4.2.1. Validate the appositeness of;
 - Pilotage Competency Element 1 - Knowledge and Skills;
 - Pilotage Competency Element 2 - Endorsements;
 - pilotage exemption processes;
- 4.4.2.2. Observe;
 - pilot licence mid-term assessments;
 - pilot licence revalidations;
 - pilotage exemption assessments; or
- 4.4.2.3. Maintain the pilotage authority's own currency of understanding of pilotage within the pilotage area.

4.5. Pilotage services provider

The pilotage services provider:

- provides, transports and transfers licenced pilots to navigate a vessel within the port of Darwin;
- recruits, employs, trains and monitors the performance of pilots;
- conducts the day-to-day operations of the pilotage service; and
- is responsible for the safety and management of marine pilots.

4.6. Pilots

- 4.6.1. It is the responsibility of pilots, subject to the authority of the master, to guide vessels that require pilotage through the Port.
- 4.6.2. A person must hold a pilot licence to act as a pilot within the Port.
- 4.6.3. Where, due to the conditions of wind and sea, the safe transfer of the pilot may be adversely affected, the pilot may disembark early in the vicinity of Elliott Point and, in the pilot boat, lead the vessel to sea or the pilotage services provider can decline to provide pilotage and the ship's departure will be delayed until conditions improve.

4.7. Pilotage exempt masters

- 4.7.1. The pilotage authority, in accordance with Division 4 of the *Ports Management Act 2015*, may issue a master a pilotage exemption certificate. A pilotage exemption certificate will be endorsed for a particular vessel or vessels and for the applicable zones of operation within a compulsory pilotage area.

5. Pilotage systems

5.1. Port safety plan

- 5.1.1. The port operator for the port of Darwin is required by Section 28 of the *Ports Management Act 2015* to provide a Port Safety Plan that;
- 5.1.1.1. Identifies the nature and extent of the safety hazards and risks associated with the operation of the port that are reasonably likely to cause death or serious injury to any person or loss of, or serious damage to, property; and
 - 5.1.1.2. Assesses the likely impact of those hazards and risks on the port and the surrounding area; and
 - 5.1.1.3. Specifies the measures and strategies to be implemented to eliminate or reduce those hazards or risks; and
 - 5.1.1.4. Describes the system that the port operator has in place for implementing those measures and strategies, including the issue and enforcement of any port notices; and
 - 5.1.1.5. Sets out the processes proposed to involve service providers in the port with the implementation of the plan by the port operator; and
 - 5.1.1.6. Is approved by the Regional Harbourmaster.
- 5.1.2. The Port Safety Plan is to include consideration of the risks or reportable incidents associated with pilotage, including but not limited to collision, allision, grounding, tug girting, line handling, pilot transfer and fatigue; the consequences of the realisation of those risks on safety, property and the environment; and the control strategies to be implemented by the port operator or pilotage services provider.

5.2. Pilotage services provider's safety management system

- 5.2.1. The Pilotage Service Provider's Safety Management System is to include consideration of the risks or reportable incidents associated with pilotage, including but not limited to collision, allision, grounding, tug girting, line handling, pilot transfer and fatigue; the consequences of the realisation of those risks on safety, property and the environment; and the control strategies to be implemented by the Pilotage Services Provider.
- 5.2.2. The Pilotage Service Provider's Safety Management System must be reviewed annually, after an incident and after any change of pilotage procedure by the pilotage service provider.

5.3. Safety management system compliance audits

- 5.3.1. The Pilotage Service Provider must conduct an annual compliance audit to check compliance with their Safety Management System, Technical and Safety Standards for Pilotage and the Provision of Pilotage Services for the port.
- 5.3.2. The Pilotage Service Provider must submit audit report to the pilotage authority within 30 days of the audit, along with the action plan to rectify deficiencies within 90 days.
- 5.3.3. The pilotage authority may require an audit of Pilotage Service Provider at interval less than 1 year by giving notice to the pilotage service provider.

5.4. Reportable incident notification

- 5.4.1. The port operator and pilotage services provider for the port of Darwin are required by Sections 18 and 87 respectively of the *Ports Management Act 2015* to keep records containing the particulars of all reportable incidents that occur within the port or pilotage area and to notify the Regional Harbourmaster of any such incidents within the period prescribed in the Act.
- 5.4.2. Pursuant to 25 of the *Ports Management Regulations 2015*, a reportable incident means an event that involves:
 - A collision of a vessel with another vessel;
 - A collision by a vessel with an object (allision);
 - The grounding, sinking, flooding or capsizing of a vessel;
 - A loss of stability of a vessel that affects the safety of the vessel;
 - The structural failure of a vessel;
 - A situation in which vessels pass each other, or a vessel passes another vessel, a person or an object, in such proximity that a reasonable person would conclude that in all the circumstances there was a risk of an imminent collision;
 - An event that results in, or could have resulted in, a vessel becoming disabled and requiring assistance;
 - The fouling or damaging by a vessel of:
 - any pipeline or submarine cable; or
 - an aid;
 - Any other event that:
 - is a reportable incident under section 50 of the *Marine Pollution Act*; or
 - must be notified under section 14 of the *Waste Management and Pollution Control Act* to the Northern Territory Environment Protection Authority.
- 5.4.3. An event of a kind that only involves actual or potential loss of, or damage to, property is a reportable event only if the value of the loss or damage is greater than \$20,000.

5.4.4. The prescribed particulars of a reportable incident that are to be kept or reported are details that are sufficient to describe:

- The nature of the incident and the circumstances surrounding it;
- The time and location of the incident;
- The persons involved in the incident;
- The vessels (if any) involved in the incident;
- The response of the port operator or pilotage services provider to the incident;
- For an event that involves actual or potential harm to the environment:
 - how that harm occurred, is occurring or may occur; and
 - action taken to prevent, reduce, control or remove that harm.

5.4.5. The prescribed period after the occurrence of a reportable incident is:

- 1 hour – if the reportable incident involves:
 - the death of a person; or
 - an injury to a person that requires or results in immediate treatment for:
 - the amputation of any part of the person's body; or
 - a serious head injury; or
 - a serious eye injury; or
 - a serious burn; or
 - the separation of the person's skin from an underlying tissue (such as degloving or scalping); or
 - a spinal injury; or
 - the loss of a bodily function; or
 - serious lacerations; or
 - the loss of a vessel; or
 - the loss of a person from a vessel; or
 - the loss of, or damage to, property to the value of \$20,000 or more; or
 - actual or potential harm to the environment; or
- in any other case – 12 hours or, if the reportable incident is also required to be reported by the port operator or pilotage services provider under another Act within a shorter period, the shorter period.

5.5. Individual pilotage record system

The pilotage services provider shall maintain a record of each of its pilots that shows:

- current and historical status, currency and expiry date of each element of Pilotage Competency Element 1 - Knowledge and Skills;
- current and historical status, currency and expiry date of each Pilotage Competency Element 2 - Endorsement;
- current medical status;
- mid-term assessment date; and
- licence expiry date.

5.6. Professional development

- 5.6.1. The pilotage services provider shall have a formal system for the professional development of its pilots to assist them to keep up to date with changes in the professional environment which will, or may impact on pilotage.
- 5.6.2. Such changes may include the development and introduction of new technology, changed laws and regulations, human factor training developments, changes in risk or risk management techniques and responses to emergency & adverse situations.

6. Operational requirements

6.1. Ship arrival information

The pilot services provider shall have in place a formal system for a ship's master or agent to advise the ship's ETA and to book a pilot. The system must allow adequate lead time for the booking of a pilot, tugs, berth, line handlers and other port services as necessary.

The booking application system shall include, but not necessarily be limited to, the following information:

- Vessel name, call sign and IMO number;
- Ship's agent;
- Date and time of arrival at pilot boarding ground;
- Ships length, beam, draft, GRT and flag state;
- If the ship's master is pilotage exempt, the master's pilotage exemption certificate number;
- Berthing information and any preference / requirement for a particular side to;
- Tug requirements;
- Line handler requirements;
- Port services requirements; and
- Cargo information including the quantities of any dangerous goods.

6.2. Obligations of master, bridge personnel and pilot

- 6.2.1. Despite the duties and obligations of a pilot, the pilot's presence on board does not relieve the master or officer in charge of the navigation watch from their duties and obligations for the safety of the ship.
- 6.2.2. The master, bridge officers and pilot share a responsibility for implementing sound BRM practices, good communications and having an understanding of each other's role for the safe conduct of the vessel in the Port pilotage waters.

6.3. Master – Pilot information exchange

- 6.3.1. It is important that, when a ship embarks a pilot and before the act of pilotage commences, the master, bridge personnel and the pilot are aware of their respective roles in the safe passage of the ship.
- 6.3.2. The master and the pilot must exchange information regarding navigation procedures, local conditions and rules and the ship's characteristics. This information exchange shall be initiated immediately prior to the commencement of the act of pilotage and be a continuous process for the duration of the pilotage.
- 6.3.3. The pilotage service provider must record and retain the Master/Pilot information exchange in a format specified in PSP's Safety Management System.

6.4. Port passage plan

6.4.1. The pilotage services provider must develop a standard information exchange practice for use by its pilots. This is best achieved using a standard port passage plan into which the relevant information for the passage in pilotage waters is entered. The passage plan shall contain as a minimum:

- The plans and procedures for the passage;
- Contingency plans for emergencies;
- Water depth and Under Keel Clearance information;
- Anticipated tidal information including tide times, tidal heights and tidal streams;
- Berthing arrangements, the number, characteristics and use of tugs, mooring boats or any other port service facilities;
- Information on mooring arrangements;
- Confirmation that the English language will be used for all communication during the pilotage; and
- Information on cyclone procedures during the cyclone season.

6.5. Pilot card

The pilot shall be provided with information regarding the ship and its characteristics by the ship's master. This is best presented in the form of a standard pilot card. Additional information on rates of turn at different speeds, turning circles, stopping distances and any other information relevant to the passage should also be readily available to the pilot.

6.6. Voyage planning

- 6.6.1. IMO Resolution A893(21), SOLAS Chapter V and Part 2 (Voyage Planning) to Part A-VIII/2 of Chapter VIII of the STCW Code (Part A) place a requirement for voyage planning on a ship's master. This shall take the form of a detailed passage plan from berth to berth, including passage in the Port's pilotage waters.
- 6.6.2. The ship's passage plan and respective port passage plan presented by the pilot should be compared, discussed and agreed for the forthcoming act of pilotage at the time of the master – pilot information exchange. It must be noted that the passage plan sets an outline to promote common understanding by the pilot, master and bridge team, and that deviation from the plan can take place providing the deviation is discussed, agreed and communicated to the bridge team.
- 6.6.3. Masters and bridge officers have a duty to support the pilot and to ensure that his or her actions are monitored at all times and that any deviation from the agreed passage plan is discussed.

6.7. Pilot transfer

- 6.7.1. The pilotage services provider must have an efficient and safe system of pilot transfer to and from the ship.
- 6.7.2. The pilotage services provider shall make the information about pilot transfer arrangements and pilot transfer positions readily available on the pilotage services provider and port operator's website.
- 6.7.3. The pilotage service provider's safety management system must have documented procedures for transfer of the pilot.
- 6.7.4. The pilotage services provider must train their pilots in pilot transferring procedures
- 6.7.5. The pilotage services provider must train the pilot boat crews in conducting safe embarkation and disembarkation of pilots from the vessel and in emergency procedures.

7. Pilots

7.1. Privileges of a pilot licence

A pilot is entitled to pilot ships of the size and type, and within the zones and at the facilities in the port, consistent with the pilot licence held and subject to the endorsements of that licence, provided that he or she is allocated to do so by the pilotage services provider.

7.2. Medical fitness

7.2.1. Whilst Marine Orders Part 76 Health – Medical fitness does not apply to the pilots, covered by this Standard, the standards set by Marine Orders Part 76 Health are applied across the marine industry and therefore it is appropriate that they are applied to pilots working in the Port. Therefore, pilots shall obtain a certificate of medical fitness from an AMSA approved medical practitioner at intervals not exceeding two years.

7.2.2. Where a pilot is aged 55 years or over, a certificate of medical fitness shall be obtained annually.

7.2.3. Where a pilot has experienced a serious injury or illness, the medical fitness of the pilot must be reassessed prior to his or her return to pilotage duty.

7.3. Refusal of pilotage services

A pilot shall have the right to refuse pilotage when a ship to be piloted is considered to pose a danger to the safety of navigation, the safety of the environment, the safety of the pilot or the safety of pilotage services provider employees and/or assets.

Any such refusal, together with the reason, should be immediately reported to the pilotage services provider and the pilotage authority.

7.4. Pilotage not required in certain cases

If the port operator, pursuant to Section 73 of the *Ports Management Act 2015*, authorises a vessel to be immediately brought into, moved within or taken out of a compulsory pilotage area without a pilot on board, the port operator is to inform the pilotage authority at the first practicable opportunity.

8. Pilot entry criteria

8.1. Pilot entry criteria

- 8.1.1. The criteria for entry to pilotage training are to be based upon the suitability, competency, fitness and skill of an applicant.
- 8.1.2. Pilot licence candidates must demonstrate, to the satisfaction of the pilotage services provider:
- significant accumulated practical seagoing experience; and
 - substantial ship management skills; and
 - substantial fundamental navigation skills and knowledge.
- 8.1.3. The following contribute substantially to the demonstration of the above criteria but are not intended to limit the means by which they can be demonstrated:
- 8.1.3.1. A current Certificate of Competency as an Australian Master Unlimited; or
- 8.1.3.2. A current Certificate of Recognition equivalent to an Australian Master Unlimited issued by AMSA; or
- 8.1.3.3. Ship command of vessel greater than 3000 tons for a minimum of 12 months;
- 8.1.3.4. Pilotage experience on vessels similar to those visiting Darwin port.
- 8.1.4. For candidates who are not qualified Master Unlimited or equivalent, the pilotage authority must approve the candidate before the candidate is appointed as a marine pilot by the pilotage service provider.
- 8.1.5. Pilot licence candidates must meet the requirements for medical fitness as outlined in clause 7.2 of this Standard.
- 8.1.6. Pilot licence candidates should be able to demonstrate the ability to speak, read and write in the English language to a standard adequate to enable the pilot to express communications clearly.

9. Pilot licence system

9.1. Pilot licence structure and competencies

- 9.1.1. Pilots are licensed by the pilotage authority according to zones, ship length and berthing facility.
- 9.1.2. Pilots gain a licence by demonstrating to the pilotage authority that they have competence in the 2 pilotage competency elements described below:
 - 9.1.2.1. **Pilotage Competency Element 1** – these are underpinning knowledge and skills for navigation, shiphandling, emergency response and other elements described in clause 10.7. They form pre-requisites for Pilotage Competency Element 2.
 - 9.1.2.2. **Pilotage Competency Element 2 - Endorsements** (henceforward referred to as endorsements) – these are discrete competencies relating to ship length and berth combinations as described in Appendices A and B. Each Berth/Ship Endorsement requires completion of pre-requisite Skills from Pilotage Competency Element 1 and specific number of Berthing Trips for individual berths.

9.2. Initial pilot licence

A pilot candidate will be issued a pilot licence after they complete a structured training as per the individual training plan developed by the pilotage service provider and demonstrating proficiency in applicable Skills of Pilotage Competency Element 1 and at least one Berth/Ship endorsement from Pilotage Competency Element 2.

9.3. Pilot licence endorsed

- 9.3.1. A pilot's licence will be classed as Restricted so long as any extant elements of Pilotage Competency Element 1 and Pilotage Competency Element 2 have not yet been achieved.
- 9.3.2. A Pilot Licence Restricted will be endorsed as additional elements of Pilotage Competency Element 1 and Pilotage Competency Element 2 are achieved.
- 9.3.3. A pilot licence is restricted for length and/or berth and/or the zone
- 9.3.4. A Pilot Licence Restricted must complete Mid Term Assessment and Revalidation as per the requirement of clause [11.6](#) indicating currency in applicable elements of pilotage competency element 1 and 2.
- 9.3.5. In lieu of [9.3.4](#), the PSP may provide evidence of pilot maintaining currency of the berths and the local knowledge as per the clause [11.2](#) and the berth matrix.

9.4. Pilot licence fully-endorsed

- 9.4.1. When a pilot has attained all extant elements of Pilotage Competency Element 1 and Pilotage Competency Element 2, his or her licence will be annotated as endorsed.
- 9.4.2. A pilot licence endorsed does not entitle the holder to conduct pilotage in circumstances not described by the extant Endorsements. Such cases are novel acts of pilotage and clause [10.11](#) applies.

9.5. Pilot licence fully endorsed – adding novel berths or vessels

- 9.5.1. Where endorsements are added for new berths or vessels in accordance with clause 10.9, it will not affect the classification of the holder of a Pilot Licence Unrestricted.
- 9.5.2. The pilotage to or from the new berth or on a new class of vessels will be subject to conditions determined by the pilotage authority in agreement with the Pilotage Services Providers until the pilot has demonstrated competence in accordance with those conditions.
- 9.5.3. In case the pilotage authority and the pilotage service provider do not reach an agreement, the pilotage authority's decision will be final.

9.6. Extended absence or termination of employment or engagement

- 9.6.1. Where a licenced pilot's employment with, or engagement by, the Pilotage Services Provider is terminated, the Pilotage Services Provider is to notify the pilotage authority. The licence of that pilot will be suspended for a period of 6 months.
- 9.6.2. If within 6 months the pilot is re-employed or re-engaged by the Pilotage Services Provider, then the licence will be reactivated subject to clause 9.6.3. If not, then the licence will be cancelled.
- 9.6.3. A licenced pilot who returns to employment of a pilotage service provider or from extended leave of absence more than 4 months and less than 6 months, must undergo Check Trips Assessment and update themselves with the changes in the local knowledge.
- 9.6.4. A terminated pilot who is reemployed or reengaged after six months and within 12 months of leaving the employment of a pilotage service provider or from extended leave of absence must undergo tailored individual training and Check Trip Assessments. The individual training plan must be approved by the pilotage authority.
- 9.6.5. A terminated pilot who is reemployed or reengaged after 12 months of leaving the employment of a pilotage service provider or returning from extended leave must undergo training required by a new entrant with similar experience. The individual training plan must be approved by the pilotage authority.

10. Pilot training

10.1. Pilot training programme

The pilotage services provider shall have in place a structured pilot training programme which shall include:

- A statement describing the purpose of the training programme;
- A syllabus which incorporates the requirements to attain each of the skills listed in Pilotage Competency Element 1 and the method by which they are to be delivered and assessed;
- A description of how the training programme for an individual pilot licence candidate or pilot will be tailored to account for prior pilotage experience; and
- A process for the provision of tailored pilot training logs for the recording and signing off of all the required skills of Pilotage Competency Element 1 and prerequisites for Pilotage Competency Element 2.
- A process to inform Harbour Control or Vessel Traffic Services when a pilot is being trained or assessed on the vessel.

10.2. Issue of initial pilot licence restricted

An initial pilot licence restricted may be issued after the pilot licence candidate has demonstrated proficiency as a minimum in the following:

10.2.1. Pilotage Competency Element 1:

- 10.2.1.1. Local knowledge of relevant zones of the harbour to achieve one berth endorsement as per clause 10.7.1;
- 10.2.1.2. local tugs' capabilities and limitations as applicable to their licence as per clause 10.7.6 ;
- 10.2.1.3. Bridge instruments and pilotage equipment as per clause 10.7.4;
- 10.2.1.4. Basic Shiphandling as per clause 10.7.3;
- 10.2.1.5. Navigation as per clause 10.7.2;
- 10.2.1.6. Emergency and Adverse Situation Response as per clause 10.7.7; and
- 10.2.1.7. Vessel Traffic Services or Harbour Control or similar Vessel Traffic Management System as per clause 10.7.12 ; and

10.2.2. Pilotage Competency Element 2: Berth/ship endorsement for at least one berth as per clause [10.3](#); and

- 10.2.3. The pilot licence candidate successfully passes:
- 10.2.3.1. a blank chart examination as per clause 10.6.7
 - 10.2.3.2. a written examination as per clause 10.6.8;
 - 10.2.3.3. a pilotage assessment as per clause 10.6.9; and
 - 10.2.3.4. a check trip assessment as per clause 10.6.10.

10.3. Pilotage competency element 2 - berth/ship endorsement

- 10.3.1. The endorsement matrices are listed in Appendices A and B and list the pilotage skills and competencies which are prerequisite for obtaining various berth/ship endorsements.
- 10.3.2. The “With” matrix provides pre-requisites for the endorsement based on the pilot licence candidate having had prior pilotage experience in every class of vessel across the full spectrum of the matrix.
- 10.3.3. The “Without” matrix provides pre-requisites for the endorsement based on the pilot licence candidate having had no prior pilotage experience at all.
- 10.3.4. Many pilot licence candidates will have some, but not all, of the pilotage experience required for the “With” matrix. In that case, each such pilot licence candidate is to be assessed by the pilotage services provider and a tailored endorsement matrix developed for that individual.
- 10.3.5. Factors affecting a decision to reduce endorsement pre-requisites shall include:
- the duration of previous pilotage experience;
 - the number, type and size of ships piloted previously;
 - the grade of pilot licence previously held; and
 - the nature of the operation(s) where previous pilotage experience was gained.
- 10.3.6. Upon completion of the assessment of the pilot licence candidate’s prior experience, the pilot services provider shall recommend in writing the tailored berth/ship endorsement matrix for the pilot licence candidate to the pilotage authority for approval.

10.4. Examination and assessment period

- 10.4.1. A pilot licence candidate must lodge an application for an examination and assessment on completion of their training program.
- 10.4.2. A pilot licence candidate must complete the examination and assessment process as soon as practical but no later than 90 days after completing their training program.
- 10.4.3. The pilot licence candidate must be provided with feedback after each assessment event.
- 10.4.4. The pilotage authority at its discretion may give extension beyond 90 days on receiving a written application from the pilotage service provider, listing the reason for not completing the assessment within the prescribed period of 90 days.

10.5. Unsuccessful candidate

- 10.5.1. If a candidate is unsuccessful in passing an assessment event, they will be allowed a second attempt for that assessment event. The assessor will record the reason for pilot being unsuccessful and provide feedback to the candidate.
- 10.5.2. If a candidate is unsuccessful after second attempt, then the pilotage service provider will develop a remedial tailored individual training plan for the pilot licence candidate/pilot and submit to the pilotage authority for approval.

10.6. Assessment methods (AM)

- 10.6.1. The pilot licence candidate must demonstrate the knowledge and skills relevant to the competencies of piloting a vessel to obtain a pilot licence as listed in Pilotage Competency Element 1 and 2.
- 10.6.2. It is recognised that a pilot licence candidate can gain the knowledge and skills for the pilotage by different methods and some pilot licence candidates may have prior experience. The pilotage service provider may take the pilot licence candidate's prior knowledge and experience into account in developing the Individual Training Plan for the pilot licence candidate.
- 10.6.3. The Check Trip Assessment must be conducted in the real world on board an appropriate vessel with a Check Pilot as per clause [10.6.10](#).

10.6.4. Trip records (AM1)

These are records maintained by the pilot licence candidate or pilot of all acts of pilotage whether as an observer, mentored pilot or pilot. They provide a measure of experience in the real world.

While they contain no objective evidence of competence, they contribute to building a cumulative case for it. Pilots are encouraged to document their experience and self assessment in the trip/voyage records.

10.6.5. Simulation reports (AM2)

- 10.6.5.1. These are reports compiled by a qualified assessor of simulation service provider and/or accompanying check pilot, according to the reporting requirements of the pilotage services provider, during simulated pilot training.
- 10.6.5.2. The pilotage service provider's reporting requirement should provide evidence of assessment of the pilotage competencies elements 1 and 2.
- 10.6.5.3. They provide a detailed objective evaluation, by a trusted agent, of the pilot licence candidate's or pilot's performance during simulated training.
- 10.6.5.4. They may, depending upon the training package provided, include a statement of attainment of a set of competencies.

10.6.6. Course reports (AM3)

- 10.6.6.1. These are reports compiled by a qualified assessor of the course provider, according to the reporting requirements of the pilotage services provider, during pilot training.
- 10.6.6.2. The pilotage service provider's reporting requirement should provide evidence of assessment of the pilotage competencies elements 1 and 2 as described in clause 10.7.
- 10.6.6.3. They provide a detailed objective evaluation, by a trusted agent, of the pilot licence candidate's or pilot's performance during training.
- 10.6.6.4. They may, depending upon the training package provided, constitute or include a certificate or statement of attainment of a set of competencies or knowledge.

10.6.7. Blank chart examination (AM4)

- 10.6.7.1. These are examinations invigilated by the pilotage services provider, according to the examination requirements of, and upon the blank charts supplied by, the pilotage authority.
- 10.6.7.2. The examination consists of a series of charts upon which key navigation information has been obscured. The pilot licence candidate or pilot is required to supply the obscured information.
- 10.6.7.3. The examinations are to be marked by a Check Pilot or by the pilotage authority. 85% is the minimum acceptable mark. Where the candidate has achieved the 85% pass mark but has answered some questions incorrectly, the incorrect answers will be discussed orally and/or during the pilotage assessment.

10.6.8. Written examination (AM4)

- 10.6.8.1. These are examinations invigilated by the pilotage services provider or the pilotage authority, according to the examination requirements of, and answering questions set by, the pilotage authority.
- 10.6.8.2. The examination consists of a series of questions/scenarios that examine the pilot licence candidate's or pilot's:
 - local knowledge and understanding;
 - local tugs' capabilities and limitations;
 - bridge instruments and pilotage equipment;
 - basic shiphhandling;
 - navigation;
 - emergency response and adverse situation procedures;
 - advanced shiphhandling and tug utilisation;
 - berth specific information; and
 - LNG/LPG additional risk controls.

- 10.6.8.3. The examinations are to be marked by a Check Pilot or by the pilotage authority. 85% is the minimum acceptable mark to move to the next stage of the assessment process. Where a pilot licence candidate has achieved the 85% pass mark but has answered some questions incorrectly, the incorrect answers will be discussed orally and/or during the pilotage assessment.
- 10.6.8.4. The pilot candidate have to pass a separate written examination to get DLNG, LNG/LPG berth/ship endorsement.

10.6.9. Pilotage assessment (AM5) - Assessment panel

- 10.6.9.1. The Pilotage Assessment is conducted by the assessment panel at the time of issue of initial licence.
- 10.6.9.2. The pilotage assessment will be conducted in English by an assessment panel comprising of the following:
- Regional Harbour Master who is the chair of the assessment panel;
 - an assessor with maritime or pilotage qualifications and skills;
 - a check pilot of the pilotage service provider.
- 10.6.9.3. The pilotage assessment will be conducted before the Check Trip Assessment.
- 10.6.9.4. The pilotage assessment may consist of a series of verbal questions, written scenarios, written questions and other assessment methodologies to assess the pilot candidate's knowledge, skills and competence for piloting a vessel through the relevant zones and at least one berth in Darwin port.
- 10.6.9.5. The pilotage assessment will be developed by the pilotage authority.
- 10.6.9.6. The answers of the pilotage assessment will be assessed by the panel members and they will, collectively determine whether the pilot licence candidate or pilot has satisfactorily demonstrated the required knowledge, skills and competence.
- 10.6.9.7. In case there is disagreement in the assessment panel, the Regional Harbour Master's decision will be final.
- 10.6.9.8. The pilot candidate must satisfy the assessment panel at the pilotage assessment that they have the required knowledge, skills and competence as required by the pilotage competency element 1 and pilotage competency element 2.
- 10.6.9.9. No other person is allowed in the examination room while the pilotage assessment is in progress.

10.6.10. Check trip assessment reports (AM6)

- 10.6.10.1. The check trip assessment is the final assessment conducted by the Check Pilot after the candidate has passed all other assessments.
- 10.6.10.2. The check trip assessment reports are compiled by a check pilot, according to the reporting requirements of the pilotage authority, during a pilotage on-the-job assessment.
- 10.6.10.3. They provide a detailed objective assessment of the pilot licence candidate's knowledge, skills and competence and make an explicit statement to the effect that the pilot licence candidate or pilot has or has not demonstrated a satisfactory standard of knowledge, skills and competence.
- 10.6.10.4. The check trip assessment is conducted and reports documented by the Check Pilot for:
 - issue of initial pilot licence
 - upgrade of length for a pilot licence
 - adding zones to a pilot licence
 - adding berth/ship endorsement to the pilot licence
 - mid-term assessment of a pilot
 - revalidation of pilot licence
 - any other circumstances deemed necessary by the pilotage service provider or the pilotage authority.

10.7. Pilotage competency element 1: Skills 1 to 18

The key knowledge and skills that must be demonstrated to the pilotage authority as pre-requisites for various berth/ship endorsements are:

10.7.1. Local knowledge (Skills 1, 2, 3, 4, 5, 6 & 7), including local knowledge of:

- port limits
- compulsory pilotage area;
- relevant legislative framework;
- aids to navigation including the characteristics of the lights and their arcs of visibility;
- names and characteristics of the fairways, shoals,
- headlands and points;
- depths of water throughout the port;
- tidal stream effects and factors that can cause tidal anomalies;
- range and duration of the tides;
- the use of tide tables and real-time tidal information;
- proper courses and distances;
- designated and emergency anchorages;

- communications and radio reporting procedures;
- harbour control procedures;
- current Regional Harbourmaster's Directions
- current navigation information affecting the port;
- standard operating procedures in use at the port;
- emergency and contingency plans for the port; and
- safe embarkation and disembarkation procedures.

10.7.2. Navigation (Skill 8)

Proficiency in using visual navigation techniques and electronic bridge instruments to determine position, movement of vessel and situational awareness; blind pilotage.

10.7.3. Basic shiphandling (Skill 9)

Manœuvring behaviour of ships and the limitations imposed by particular propulsion and steering systems; factors affecting ship performance such as wind, current, tide, channel configuration, water depth, bottom, bank and ship interaction including squat; principles of turning and stopping ships and the variation in pivot point when doing so; anchoring and mooring; berth approach tactics; dredging anchors; capabilities, limitations, dangers and use of tugs.

10.7.4. Bridge instruments and pilotage equipment (Skill 10)

Radar; Portable Pilot Units (PPU); Automatic Identification Systems (AIS); satellite positioning systems; and other electronic devices; their limitations and capabilities as navigation; collision avoidance aids and in determining situational awareness.

10.7.5. Bridge resource management for pilots (BRM-P) (Skill 11)

The use and co-ordination of all the skills, knowledge, experience and resources available to the pilot to achieve safe and efficient pilotage. In particular, Pilot/Master exchange methods to maximise situational awareness, detect and interrupt error chains, understand and exploit human factors and the dynamics of the bridge group performance and the use of effective communication and command and leadership.

10.7.6. Use of tugs (Skill 12)

Knowledge and experience of local tugs' capabilities and limitations.

10.7.7. Emergency and adverse situation response training (Skill 13)

Response for emergency and adverse situations such as man overboard; loss of propulsion; loss of steering; collision, allision; grounding; fire; loss of electronic navigation systems and total blackout of the ship. Adverse situation includes but not limited to adverse weather, delay in tug or other port services, non-availability of VTS, sudden gust of wind or if challenged with an unplanned situation/manoeuvre or other similar situations.

10.7.8. Advanced Marine Pilotage Training (Skill 14)

Provides pilots with updates on the latest pilotage techniques and practise. Further develops and updates the knowledge of human factors in pilotage.

10.7.9. **Advanced shiphandling & tug utilisation (Skill 15)**

The manoeuvring behaviour of large ships in shallow water using multiple tugs, including further exploration of the factors affecting

- large ship performance (building on the basic shiphandling element) such as; wind, current, tide, channel configuration, water depth, bottom, bank and ship interaction including squat;
- principles of turning and stopping large ships, especially with low under keel clearance; berth approach tactics with particular emphasis on the various methods of slowing down;
- capabilities, limitations, dangers (including girting) and use of tugs; tug utilisation including positioning and securing arrangements, tug utilisation considerations in the approach phase including indirect towing and its use in turning and slowing, tug utilisation considerations in the berthing phase and utilisation of dissimilar tug types.

10.7.10. **Berth specific skills (Skill 16)**

Peculiarities of construction, equipment, tidal streams and limiting shiphandling factors for the berth/ship combination.

10.7.11. **LNG/LPG (Skill 17)**

Specific knowledge of additional risk controls associated with gas carriers and berths.

10.7.12. **Vessel Traffic Services (VTS) or Harbour Control or similar Vessel Traffic Management System (Skill 18)**

A thorough understanding of the function of Vessel Traffic Management System (VTMS) in pilotage and integrating the information obtained from VTMS in shipboard decision making while piloting a vessel.

10.8. **Demonstrating pilotage competency element 1: Skills 1 to 18**

The following provides methods of collecting evidence to demonstrate underpinning knowledge and skills for pilotage competency element 1:

10.8.1. **Local knowledge (Skills 1, 2, 3, 4, 5, 6 & 7):**

- 10.8.1.1. Can be achieved through a combination of real-world experience; simulation; and study;
- 10.8.1.2. Can be demonstrated through trip records; check pilot reports; reports from a simulation provider; blank chart, oral and written examinations;
- 10.8.1.3. In addition to clause [10.8.1.2](#), the pilotage authority requires the following minimum trips for each of the pilotage zones in real world:
 - 6 day pilotage trips with a licensed pilot;
 - 2 night pilotage trips with a licensed pilot;
 - One Check Trip Assessment; and

10.8.1.4. In addition to clause 10.8.1.2 and 10.8.1.3, the pilotage service provider must conduct the following examinations for each of the pilotage zones:

- blank chart examination
- written examination.

10.8.2. Navigation (Skill 8):

10.8.2.1. Can be achieved through a combination of real-world experience; simulation; and study; and

10.8.2.2. Can be demonstrated through trip records; check pilot reports; reports from a simulation provider; oral and written examinations.

10.8.3. Basic shiphandling (Skill 9):

10.8.3.1. Can be achieved through a combination of real-world experience; simulation (including manned model simulation); study; or through a tailored course; and

10.8.3.2. Can be demonstrated through trip records; check pilot reports; reports from a simulation provider; oral and written examinations; or through reports from a course provider.

10.8.4. Bridge instruments and pilotage equipment (Skill 10):

10.8.4.1. Can be achieved through a combination of real-world experience; simulation; study; or through a tailored course;

10.8.4.2. Can be demonstrated through check pilot reports; reports from the simulation provider; oral and written examinations; or through reports from a course provider; and

10.8.4.3. In the event that a substantially new type of Bridge Instrument or Pilotage Equipment is introduced or becomes prevalent, the Pilotage Services Provider is to develop a training program to provide the required knowledge and skills to all licenced pilots. The training program is to be provided to the pilotage authority for endorsement before implementation. Progress reports on attainment of knowledge and skills for the new equipment are to be provided to the pilotage authority as identified milestones are met.

10.8.5. Bridge resource management for pilots (BRM-P) (Skill 11):

10.8.5.1. As a recognised course, the BRM-P component is best gained through attendance on that course; and

10.8.5.2. Can be demonstrated through reports or certificates from the BRM-P course provider.

10.8.6. Use of tugs (Skill 12):

- 10.8.6.1. Can be achieved through a combination of real-world experience; simulation; and study;
- 10.8.6.2. Can be demonstrated through trip records; check pilot reports; reports from a simulation provider; oral and written examinations;
- 10.8.6.3. In addition to clause [10.8.6.4](#), the pilotage authority requires that the candidate experience trips in tugs for the following minima:
 - 5 berthings
 - 5 unberthings
 - At least 2 full tug movements assisting a vessel in each class of tug (including new classes of tug); and
- 10.8.6.4. In the event that a substantially different class of tug is introduced into service in the harbour, the Pilotage Services Provider is to develop a program to provide the required knowledge to all licenced pilots. The training program is to be provided to the pilotage authority for approval before implementation. Progress reports on attainment of knowledge and skills for the new class of tug are to be provided to the pilotage authority as identified milestones are met.

10.8.7. Emergency and adverse situation response training (Skill 13):

- 10.8.7.1. Can be achieved through oral and written examinations; and simulation. Simulation provides an environment where a pilot or pilot candidate's reactions can be tested and where variables can be controlled and consequences managed; and
- 10.8.7.2. Can be demonstrated through reports from a simulation provider; check pilot reports; oral and written examinations.

10.8.8. Advanced marine pilotage training (Skill 14):

- 10.8.8.1. As a recognised course, the AMPT component is best gained through attendance on that course; and
- 10.8.8.2. Can be demonstrated through reports or certificates from the AMPT course provider.

10.8.9. Advanced shiphandling & tug utilisation (Skill 15):

- 10.8.9.1. Can be achieved through a combination of real-world experience; simulation (including manned model simulation); and study; and
- 10.8.9.2. Should include detailed post-run analysis of pivot point and force vectors, both linear and rotational, and how they were manipulated and managed by the candidate and discussion of alternative methodologies to better utilise the available controllable and uncontrollable forces acting on the ship, and
- 10.8.9.3. Can be demonstrated through trip records; check pilot reports; reports from a simulation provider; oral and written examinations.

10.8.10. Berth specific skills (Skill 16):

- 10.8.10.1. Can be achieved through a combination of real-world experience; simulation; and study. The emphasis is on simulation and exploration of the limiting shiphandling factors;
- 10.8.10.2. Can be demonstrated through trip records; check pilot reports; reports from a qualified assessor of the simulation provider; oral and written examinations;
- 10.8.10.3. The pilot candidate must meet the requirements of appendices A and B to get the Berth/ Ship Endorsements; and
- 10.8.10.4. The berth specific skills must be demonstrated in the real world to Check Pilot

10.8.11. LNG/LPG (Skill 17):

- 10.8.11.1. Can be achieved through a combination of real-world experience and study;
- 10.8.11.2. Can be demonstrated through check pilot reports; oral and written examinations; and
- 10.8.11.3. The pilot candidate must meet the requirements of appendix A and B to get the Endorsements

10.8.12. Vessel Traffic Services (VTS) or Harbour Control or similar Vessel Traffic Management System (Skill 18):

- 10.8.12.1. Can be achieved through a visit to the Harbour Control or VTS and interacting with the operators to understand Vessel Traffic Management System operations and its importance to pilotage; and
- 10.8.12.2. Can be demonstrated through Harbour Control or VTS visit records and check pilot reports or oral examination.

10.9. Pilotage competency element 2: endorsements

10.9.1. General

The endorsements are defined by 2 arguments:

- ship length
- the berths to and from which they are to be navigated.

10.9.2. Adding berth/ship endorsement to the standard for a new berth or new length of vessel

In the event that a new berth is constructed or commissioned in the harbour, or a new length-class of ship is calling to an existing berth, the pilotage authority, in consultation with the pilotage services provider, will:

- 10.9.2.1. Determine whether a berth specific element of competency is required for the new berth;
- 10.9.2.2. Determine the pre-requisites for the berth/ship endorsement and the observation, mentoring and assessment requirements for them. These will be added to the matrices at Appendices A and B by way of a new sub-version to the Pilotage Standard; and
- 10.9.2.3. Where necessary, re-issue pilot licences to reflect the change.

10.9.3. Removing endorsement from the standard for a berth or a length of vessel

- 10.9.3.1. In the event that a berth is demolished or decommissioned in the harbour, or a length-class of ship is no longer calling to an existing berth, the pilotage authority will:
 - remove that endorsement from the matrices Appendices A and B by way of a new sub-version to the Pilotage Standard; and
 - where necessary, re-issue pilot licences to reflect the change.

10.9.4. Endorsement for cold move of a vessel

- 10.9.4.1. The majority of the berth/ship endorsements assume that a ship being navigated has her main source(s) of propulsion available. On occasion a ship will not be fitted with propulsion or will not have her propulsion available. In those cases, known herein as a cold move, there are two additional categories of endorsement:
- 10.9.4.2. Single-tug cold move (SA) – these endorsements describe a set of competencies that allow a pilot to move a ship without propulsion using only one tug made fast. A second tug may assist the move by leaning on; and
- 10.9.4.3. Multi-tug cold move (MA) – these endorsements describe a set of competencies that allow a pilot to move a ship without propulsion using more than one tug made fast.
- 10.9.4.4. These endorsements are supplementary to the berth/ship endorsements. That is, to conduct a cold move to or from an alongside berth, the pilot would need the appropriate berth/ship endorsement for that length of ship and that berth in addition to the cold move endorsement.

10.10. Demonstrating pilotage competency element 2: endorsements

- 10.10.1. A pilot licence candidate or pilot gains these competencies is through experience; such experience may be gained in the real-world or in a combination of the real-world and simulated environments.
- 10.10.2. The requirements to obtain endorsements are listed in [Appendix A](#) and [Appendix B](#). They can be demonstrated through trip records; check pilot reports; reports from a qualified assessor of simulation provider.
- 10.10.3. An endorsement assessment consists of 4 discrete elements:
- 10.10.3.1. Pre-requisites - these may be skills or berth/ship endorsements or both and are listed in Appendices A and B;
- 10.10.3.2. Observation trips of berthing – these are acts of pilotage and berthing undertaken by a licenced pilot or Pilot Exempt Master and observed by the pilot licence candidate;
- 10.10.3.3. Mentored trips for berthing - for these acts:
- the endorsement candidate will have navigation & pilotage control, but the licenced pilot is to retain navigation & pilotage charge. The candidate will be provided with guidance, advice and training. The mentored pilot should be provided with feedback; and
 - except for endorsement where skills element 16 applies, mentored trips for berthing may be conducted in a full-mission simulator, and in such cases, either a qualified simulator trainer or a licenced pilot can act as a mentor. Up to 50% of the specified mentored trips can be simulated on a 2:1 basis. That is, for each real-world mentored act, 2 simulated mentored acts are required.
- 10.10.3.4. Assessment trips for berthing - for these acts:
- the endorsement candidate will have navigation & pilotage control, but a Check Pilot is to retain navigation & pilotage charge. The Check Pilot will assess the candidate's conduct of the pilotage and submit a Check Pilot report as described in clause [10.6.10](#); and
 - the Check Pilot should, so far as practicable, refrain from offering advice or guidance during the check trip assessment. Any need to do so should prompt consideration of whether the candidate has demonstrated the required standard of knowledge, skills and competence and should be documented.

10.11. Novel pilotage

- 10.11.1. Situations may arise where there is a need to conduct a novel act of pilotage that is not described by any of the berth/ship endorsements. The pilotage services provider, in consultation with a pilot who holds a pilot licence fully endorsed, is to undertake a risk assessment and forward its recommendation to the pilotage authority for approval.
- 10.11.2. Where the pilotage authority is satisfied that the residual risks associated with the novel pilotage are as low as reasonably practicable, approval to undertake the novel pilotage by the pilot with unrestricted licence will be provided. Where the pilotage authority is not satisfied, it will ask the pilotage service provider to further reduce/remove the residual risk to the satisfaction of the pilotage authority.
- 10.11.3. In a situation where the pilot with a fully endorsed licence who developed the risk assessment is not conducting the novel pilotage, then the approved risk assessment should be agreed by the pilot with fully endorsed licence who is conducting the novel pilotage, and submitted to the pilotage authority for approval.
- 10.11.4. Where the pilotage service provider advises that a novel pilotage is a likely precursor to similar future requirements, the pilotage authority will establish an endorsement and determine the pre-requisites for the endorsement and the observation, mentoring and assessment requirements for it. These will be added to the matrices at Appendices A and B by way of a new sub-version to the Pilotage Standard.

11. Ongoing maintenance of pilot licence

11.1. Pilotage services provider's responsibility

- 11.1.1. A pilot licence is valid for a period of 3 years from the date of issue.
- 11.1.2. When a pilot achieves a pilot licence fully endorsed, it will be issued with a full term, three year validity.
- 11.1.3. It is the pilotage services provider's responsibility to maintain the currency of their pilots' licences by monitoring currency requirements and expiry dates.
- 11.1.4. It is the responsibility of the pilotage services provider to apply for revalidation and may do so by applying in writing, to the pilotage authority.
- 11.1.5. The pilotage services provider must maintain a record of all pilotage acts that its pilots carry out. These are to be provided to the pilotage authority for the mid-term assessments and application for licence revalidation.

11.2. Currency requirements for pilotage competency element 1

11.2.1. Local knowledge

- 11.2.1.1. The pilot licence holder must complete at least 72 acts of pilotage in 36-month period starting from the date of issue of the pilot's licence.
- 11.2.1.2. Out of 72 acts of pilotage described in clause 11.2.1.1, 36 acts of pilotage should be completed in the first 18 months from the date of issue of pilot licence to fulfil the requirement of mid-term assessment.
- 11.2.1.3. At least one act of pilotage must be conducted through each of the zones during the 36 month period for which the licence is endorsed.
- 11.2.1.4. At least 4 acts of pilotage must be conducted every 120 days.
- 11.2.1.5. If a Pilot is not able to conduct 4 acts of pilotage every 120 days, then the reason for not achieving it must be recorded by the pilotage service provider and remedial measures put in place.
- 11.2.1.6. Evidence of Local Knowledge currency is to be provided to the pilotage authority along with the Mid-term Assessment Report and Revalidation application.

11.2.2. Navigation

Having achieved an initial endorsement for this element of the skills and provided the pilot maintains currency of their license there is no further currency requirements for the pilot licence holder provided they maintain the currency of local knowledge.

11.2.3. **Basic shiphandling**

Having achieved an initial endorsement for this element of the skills, there are no further currency requirements for the pilot licence holder provided they maintain the currency of local knowledge.

11.2.4. **Bridge instruments and pilotage equipment**

Having achieved an initial endorsement for this element of the skills, there are no further currency requirements for the pilot licence holder provided they maintain the currency of local knowledge.

11.2.5. **Bridge resource management for pilots (BRM-P)**

- 11.2.5.1. Bridge Resource Management Training is to be undertaken at an interval not exceeding 5 years from the previous date of the Bridge Resource Management Training
- 11.2.5.2. A pilot must always have a valid Bridge Resource Management Training completion certificate to conduct pilotage.
- 11.2.5.3. Self-declaration of currency must be provided to the pilotage authority for mid-term endorsement
- 11.2.5.4. Evidence of currency must be provided to the pilotage authority for revalidation of pilot's licence.

11.2.6. **Use of tugs**

Having achieved an initial endorsement for this element of the skills, there are no further currency requirements for the pilot licence holder provided they maintain the currency of their local knowledge and use of tugs.

11.2.7. **Emergency and adverse situation response training**

- 11.2.7.1. Emergency and adverse situation response training is to be undertaken at an interval not exceeding 3 years from the previous date of the emergency and adverse situation response training.
- 11.2.7.2. A pilot must always have a valid emergency and adverse situation response training completion certificate to conduct pilotage.
- 11.2.7.3. This is to be supplemented by oral examination of emergency and adverse situation response procedures during mid-term assessments described at clause 11.6
- 11.2.7.4. Self-declaration of currency must be provided to the pilotage authority for mid-term endorsement
- 11.2.7.5. Evidence of currency must be provided to the pilotage authority for revalidation of the pilot's licence.

11.2.8. **Advanced marine pilotage training**

- 11.2.8.1. Advanced marine pilotage training is to be undertaken at interval not exceeding 6 years from the date of completion of the previous advanced marine pilotage training.
- 11.2.8.2. Self-declaration of currency must be provided to the pilotage authority for mid-term endorsement.
- 11.2.8.3. Evidence of currency must be provided to the pilotage authority for revalidation of a pilot licence.

11.2.9. **Advanced shiphandling & tug utilisation**

Having achieved an initial endorsement for this element of the Skills, there are no further currency requirements for the pilot licence holder provided they maintain the currency of local knowledge and use of tugs.

11.2.10. **Berth/Ship specific**

- 11.2.10.1. A pilot must maintain currency of berth/ship endorsements as required by the matrices in [Appendix A](#) and [Appendix B](#).
- 11.2.10.2. Evidence of berth/ship endorsement currency must be provided to the pilotage authority for revalidation of a pilot licence.

11.2.11. **LNG/LPG**

- 11.2.11.1. A pilot must maintain currency of LNG/LPG berth endorsements as required by the matrices in Appendix A and Appendix B.
- 11.2.11.2. Evidence of berth currency must be provided to the pilotage authority for Revalidation of a Pilot Licence as required by clause [11.7](#)

11.2.12. **Vessel traffic services or harbour control or similar Vessel Traffic Management System**

Having achieved an initial endorsement for this element of the skills, there are no further currency requirements for the pilot licence holder provided they maintain the currency of local knowledge.

11.3. **Currency requirements for pilotage competency element 2 - endorsement**

- 11.3.1. A pilot must meet the criteria specified below to meet the berth/ship currency endorsement requirement:
 - 11.3.1.1. all the endorsement requirements as listed in [Appendix C](#) of the Pilotage Standard;
 - 11.3.1.2. where local knowledge currency is maintained but a berth endorsement currency requirement cannot be met in the real-world, the pilot can undertake not less than four simulated shiphandling acts to the berth under the supervision of a qualified assessor to meet the berth endorsement currency requirements; and

- 11.3.2. The reason for pilot not being able to maintain berth endorsement currency in real world should be documented by the pilotage service provider and provided to the pilotage authority.

11.4. Consequences of non-currency of pilotage competency element 1 - knowledge and skills

In the event of a pilotage licence holder becoming non-current in any of the skills, the following consequences result and remediation strategies apply:

11.4.1. Local knowledge

- 11.4.1.1. Where insufficient acts of pilotage is demonstrated, the pilot's licence will be temporarily suspended and the pilotage services provider, in collaboration with the pilotage authority, will develop a tailored, individual plan to restore the pilot's currency.
- 11.4.1.2. Where an act of pilotage has not been conducted in any zone for which the licence was endorsed, the pilot's licence will be altered to temporarily suspend that zone endorsement of their licence. This will have the effect that the pilot may conduct pilotage in other zones but not in the zone for which the endorsement has been removed.
- 11.4.1.3. The pilot may regain the local knowledge element zone endorsement, as described at clause 10.7.1 using the methodologies described at clause 10.8.1 within 60 days of temporary suspension for the zone.

11.4.2. Emergency and adverse situation response training

- 11.4.2.1. The pilot's licence will be temporarily suspended. This will have the effect that the pilot may not conduct pilotage in Darwin Harbour until this element has been regained. The pilot must complete the training within 60 days of suspension of pilot's licence.
- 11.4.2.2. The pilot may regain the Emergency and Adverse Situation Response Training endorsement, as described at clause [10.7.7](#) using the methodologies described in clause [10.8.7](#).

11.4.3. Advanced marine pilotage training

- 11.4.3.1. The pilot's licence will be temporarily restricted to vessel endorsements of less than 140m length until Advanced Marine Pilotage Training has been undertaken.
- 11.4.3.2. The pilot must complete the Advanced Marine Pilotage Training within 60 days of the temporary restriction on the pilot license.

11.5. Consequences of non-currency of pilotage competency element 2 - endorsement

- 11.5.1. In the event of a pilot licence holder becoming non-current in any of the Berth/Ship Endorsements, the pilot's licence will be altered to temporarily suspend the endorsement from their licence.

- 11.5.2. This will mean that the pilot will be able to conduct pilotage in accordance with the Berth/Ship Endorsements on their licence that remain current, but not for the Berth/Ship combination which has been removed.
- 11.5.3. The pilot may regain the Endorsement, having been assessed by a check pilot or after simulation as described in clause 11.3.
- 11.5.4. The check pilot's report or simulation report will be reviewed by the pilotage authority and, where the pilotage authority is satisfied with the pilot's demonstration of competence, the pilot's licence will be altered to restore the Endorsement.

11.6. Mid-term assessment

- 11.6.1. All licenced pilots must undergo mid-term assessment.
- 11.6.2. The pilotage services provider is to apply, in writing, for mid-term endorsement of a pilot licence. It is recommended that pilotage service provider submit the mid-term assessment application well before the anniversary date to allow time to request additional documents.
- 11.6.3. A pilot licence holder must provide the following for mid-term endorsement of their licence:
 - 11.6.3.1. a trips record demonstrating maintenance of currency in Pilotage Competency Element 1 described in clause 11.2:
 - 11.6.3.2. a satisfactory report from a check pilot during a mid-term Check Trip assessment conducted between 17 and 18 months after the latest award of a licence (i.e. halfway through the revalidation period of the licence). The mid-term Check Trip Assessment can be for an inward or outward trip and shall assess the application of all of the knowledge, skills and competence of pilotage competency element 1 and 2;
 - 11.6.3.3. a report of successfully completing an oral exam conducted by the check pilot during the mid-term check trip assessment on Emergency and Adverse Situation Response procedures;
 - 11.6.3.4. a current and valid certificate of completion of Emergency Response and Adverse Situation training as described in clauses 10.7.7 and 10.8.7;
 - 11.6.3.5. a current and valid certificate of completion of Bridge Resource Management Course; and
 - 11.6.3.6. a current and valid certificate of completion of Advanced Marine Pilotage Training, if applicable.
- 11.6.4. The pilotage authority must be provided with a copy of the Check Trip Assessment Report within 7 business days of the assessment date.
- 11.6.5. Where any aspect of pilotage is reported as unsatisfactory, the pilotage service provider will develop a corrective action plan and timeline and report this to the pilotage authority.
- 11.6.6. The pilotage authority will notify the pilotage services provider of any temporary restrictions to the pilot's licence.
- 11.6.7. The pilotage services provider is then to manage the corrective action and report to the pilotage authority within 7 business days of it being completed. The corrective action shall be followed

by a further review by a check pilot. Failure to obtain a satisfactory assessment report after the follow-up action is completed may result in permanent restrictions to the pilot's licence.

11.7. Revalidation

- 11.7.1. A pilot licence is valid for a period of 3 years from the date of issue and must be revalidated before the expiry of the pilot licence.
- 11.7.2. For revalidation of a pilot licence, the pilotage services provider must apply, in writing along with all the documents demonstrating currency of the pilot in the pilotage competency element 1 and 2, not later than 14 days, prior to the expiry date of the licence.
- 11.7.3. A pilot licence holder must provide the pilotage authority with the following for the revalidation of their licence:
 - 11.7.3.1. the licence holder's record as described in clause 5.5;
 - 11.7.3.2. a trips record demonstrating maintenance of currency in Pilotage Competency Element 1 described in clause 11.2;
 - 11.7.3.3. a berth matrix record demonstrating maintenance of currency in Ship/Berth Endorsement as prescribed in Appendix A and B;
 - 11.7.3.4. a satisfactory report from a check pilot on completion of a revalidation Check Trip Assessment conducted not more than 60 days before the expiry date of the licence, which can be for either an inward or outward trip, and which shall assess the application of all the knowledge, skills and competence of pilotage competency element 1 and 2;
 - 11.7.3.5. a written report of successfully completing an oral exam conducted by the check pilot during the revalidation check trip assessment on Emergency and Adverse Situation Response procedures;
 - 11.7.3.6. a current and valid certificate of completion of Emergency Response and Adverse Situation Training as described in clauses 10.7.7 and 10.8.7;
 - 11.7.3.7. a current and valid certificate of completion of Advanced Marine Pilotage Training if applicable;
 - 11.7.3.8. a current and valid certificate of completion of Bridge Resource Management Course; and
 - 11.7.3.9. a valid medical certificate in accordance clause [7.2](#).
- 11.7.4. Where the licence holder meets all the requirements for the revalidation of the pilot licence, the pilotage authority will reissue a pilot licence.
- 11.7.5. Where any of the revalidation criteria cannot be met, the pilotage authority will inform the pilotage services provider to take remedial action to restore the missing elements of the licence within a stipulated time period.
- 11.7.6. A restricted licence will be issued or the licence temporarily suspended if the pilot cannot meet all the elements of the revalidation criteria.

- 11.7.7. Failure to lodge an application will result in the licence being suspended for a period not exceeding 6 months. Subject to the requirements of clause 9.6, if no application for revalidation is received within that period the licence will be cancelled.

12. Administration and application requirement for pilot licences

12.1. Issue of initial pilot licence

A written application for initial pilot licence is to include:

- 12.1.1. the licence holder's record as described in clause 8.1 which should include evidence of meeting prerequisite qualification and/or other experience approved by pilotage authority;
- 12.1.2. evidence of knowledge of Vessel Traffic Services or a similar Vessel Traffic Management System;
- 12.1.3. a current and valid certificate of completion of Emergency Response and Adverse Situation as described in clauses 10.7.7 and 10.8.7;
- 12.1.4. a current and valid certificate of completion of Bridge Resource Management Course;
- 12.1.5. a Trip Record providing evidence of Pilotage Competency Element 1 - local knowledge of relevant zones, shiphandling, navigation and others;
- 12.1.6. evidence of meeting berth/ship endorsement requirements for at least one berth/ship;
- 12.1.7. a satisfactory report of relevant courses completed by the pilot;
- 12.1.8. evidence of passing of the blank chart examination;
- 12.1.9. evidence of passing the written examination;
- 12.1.10. evidence of passing the pilotage assessment;
- 12.1.11. satisfactory check trip assessment reports by check pilot; and
- 12.1.12. a valid medical certificate in accordance clause [7.2](#).

12.2. Adding change of length to the pilot licence

A written application for adding change of length to the pilot licence is to include:

- 12.2.1. trip records; and
- 12.2.2. a satisfactory Check Trip Assessment Report by check pilot on the length of vessel to be added.

12.3. Issue of berth endorsement

A written application for berth endorsement is to include:

- 12.3.1. the licence holder's record as described in clause 5.5;
- 12.3.2. evidence of meeting endorsement requirements as per the matrices in Appendix A and B; and
- 12.3.3. a satisfactory check trip assessment report by check pilot for berth/ship endorsement.

12.4. Issue of midterm assessment

A written application for pilot licence revalidation must include:

- 12.4.1. the licence holder's record as described in clause 5.5;
- 12.4.2. a report of maintaining currency in Pilotage Competency Element 1 described in clause 11.2 by conducting the required trips.
- 12.4.3. a current and valid certificate of completion of Emergency Response and Adverse Situation as described in clauses 10.7.7 and 10.8.7.
- 12.4.4. a current and valid certificate of completion of Advanced Marine Pilotage Training if applicable
- 12.4.5. a current and valid certificate of completion of Bridge Resource Management Course
- 12.4.6. a satisfactory report of Check Trip Assessment by a check pilot conducted between 17 and 18 months after the issue of the licence or last revalidation of the licence, which can be for an inward or outward trip of the port, and which shall evaluate the application of all of the knowledge and skills required to pilot a vessel in the port; and
- 12.4.7. a report of satisfactory completion of assessment in Emergency Response and Adverse Situation Procedures by the check pilot during the Mid Term Check Trip Assessment.

12.5. Revalidation of pilot licence

An application for pilot licence revalidation must include:

- 12.5.1. the licence holder's record as described at clause 5.5;
- 12.5.2. a report of maintaining currency in Pilotage Competency Element 1 described in clause 11.2 by conducting the required trips;
- 12.5.3. a current and valid certificate of completion of Emergency Response and Adverse Situation as described in clauses 10.7.7 and 10.8.7;
- 12.5.4. a current and valid certificate of completion of Advanced Marine Pilotage Training if applicable;
- 12.5.5. a current and valid certificate of completion of Bridge Resource Management Course;
- 12.5.6. a report of maintaining Berth/Ship Endorsement currency as per Appendices A and B;
- 12.5.7. a satisfactory report of a Check Trip Assessment by a check pilot conducted not more than 60 days before the date of expiry of the licence, and which can be for an inward or outward trip of the port, and which shall assess the application of all of the knowledge and Skills required to pilot a vessel in the port;
- 12.5.8. a report of satisfactory completion of assessment in Emergency Response and Adverse Situation Procedures by the check pilot during the revalidation Check Trip Assessment; and
- 12.5.9. a valid medical certificate in accordance clause [7.2](#).

13. Pilotage exemption certificates (PEC)

13.1. Issue of a PEC

The pilotage authority, in accordance Part 8 Division 4 of the *Ports Management Act 2015*, may issue a master a pilotage exemption certificate. A pilotage exemption certificate will be endorsed for a particular vessel or vessels, or class of vessel and for the applicable zones of operation within the compulsory pilotage area.

13.2. Privileges of a PEC

A current PEC entitles its holder, when appointed in the capacity of master, to be in pilotage charge of those ships, or classes of ship named in the PEC, in the zones of the port specified by the pilotage authority. The use of the PEC will be subject to any limitations endorsed on the PEC by the pilotage authority.

13.3. PEC eligibility criteria

The pilotage authority may grant a PEC to a suitably qualified and experienced master who holds either:

- 13.3.1. a current Certificate of Competency as an Australian Master Certificate of Competency appropriate for the size of the vessel; or
- 13.3.2. a current Certificate of Recognition equivalent to an Australian Master Certificate of Competency appropriate for the size of the vessel issued by AMSA; or
- 13.3.3. a current Certificate of Competency as Master appropriate for the size of the vessel, not issued by AMSA but eligible for the issue of a Certificate of Recognition by AMSA through bilateral agreement with the issuing Flag State.

Applicants should be able to demonstrate the ability to speak, read and write the English language to a standard adequate to enable the applicant to express communications clearly.

13.4. Medical fitness

All applicants must hold a valid medical certificate in accordance with Marine Orders Part 76.

13.5. Aids to vision or hearing

Where an applicant is required by Marine Orders part 76 to have vision or hearing aids, he/she shall comply with the requirements noted on the medical certificate.

13.6. PEC validity period

A PEC is valid for a period of 2 years in accordance with the *Ports Management Act 2015*.

13.7. PEC endorsed vessels

- 13.7.1. A PEC may be issued for up to four named vessels.

- 13.7.2. The vessels shall be nominated by the applicant and, once the pilotage authority is satisfied that suitable experience has been demonstrated, the pilotage authority shall name the vessels on the Pilot Exempt Master's certificate.
- 13.7.3. In the case of a class of vessels where the pilotage authority is satisfied with the similarity of the vessels, the class may be annotated on the Pilot Exempt Master's certificate.

13.8. PEC upper limit

The maximum vessel length, or combined length in the case of a tow, for the granting of a PEC is 100 metres.

13.9. Pilotage zones

- 13.9.1. A PEC will be issued for specified zones within the compulsory pilotage area, through which the PEC applicant has conducted the requisite trips and has suitable knowledge and experience.
- 13.9.2. The zones shall be annotated on the exempt Master's certificate issued by the pilotage authority.

13.10. PEC berths

- 13.10.1. A PEC is generally issued for all the berths within a zone for a specific vessel.
- 13.10.2. The pilotage authority may require a PEC Master to have a berth endorsement, if the pilotage authority considers that the berth requires berth specific berthing skills.

14. PEC training requirements

14.1. PEC training syllabus

An applicant for a PEC must be able to demonstrate satisfactory knowledge, skills and competence in the following:

14.1.1. General knowledge

- International Regulations for Preventing Collisions at Sea, 1972 as amended;
- Bridge equipment and navigational aids;
- Use of radar and other electronic navigation equipment, their limitations and capabilities as navigation, collision avoidance aids and for situational awareness
- Factors affecting ship performance such as wind, current, tide, channel configuration, water depth, bottom, bank and ship interaction including squat;
- Emergency and Adverse Situation Response -
Response for emergency and adverse situations such as man overboard; loss of propulsion; loss of steering; collision, allision; grounding; fire; loss of electronic navigation systems and total blackout of the ship or if challenged with an unplanned situation/manoeuvre or other similar situations.
- IMO Standard Marine Communication Phrases;
- IMO Code for the investigation of marine casualties and incidents;
- Current Marine Orders and Marine Notices ; and
- Ability to prepare a berth to berth passage plan in accordance with Chapter V of SOLAS, IMO Resolution A.893 (21) Guidelines for voyage planning and Part 2 (Voyage Planning) to Part A-VIII/2 of Chapter VIII of the STCW Code (Part A).

14.1.2. Darwin Harbour specific knowledge

- The limits of the port of Darwin and its pilotage area;
- Knowledge of Port Notices in the port of Darwin;
- The system of buoyage;
- Characteristics of the lights and their arcs of visibility;
- The use of AIS on buoys;
- Names, positions and characteristics of the light houses, buoys, beacons, structures and leading marks;
- Names and characteristics of the channels, shoals, headlands and points;
- Depths of water throughout the Port, including tidal effects and factors that can cause tidal anomalies;
- General set, rate, range and duration of the tides and the use of tide tables and real-time tidal information;
- Proper courses and distances;
- Designated and emergency anchorages;
- Shiphandling for, anchoring, berthing and unberthing;

- Shiphandling in emergency and adverse situation
- Communications and radio reporting procedures;
- Where current Regional Harbourmaster's Directions, Port Notices and current navigation information affecting the Port can be accessed;
- Systems of radio navigational warning broadcasts and the type of information likely to be included;
- Vessel Traffic Services or similar Vessel Traffic Management System;
- Pollution prevention and reporting;
- Knowledge of port cyclone procedures; and
- Any other relevant knowledge and skill considered necessary by the pilotage authority from time to time.

14.2. Darwin Harbour operating experience

An applicant for a PEC shall produce to the pilotage authority documented evidence of experience operating the vessel for which exemption is sought in the port of Darwin as follows:

- 14.2.1. Within 12 months immediately preceding the date of the application, the applicant must have either:
- 14.2.1.1. completed not less than 8 trips through the compulsory pilotage area of the Port with a licenced pilot, in command of the vessel for which the application is made. Out of the 8 trips, there must be at least 3 inwards and 3 outward trips; or
 - 14.2.1.2. completed not less than:
 - 6 trips through the compulsory pilotage area of the Port with a licenced pilot or an experienced Pilot Exempt Master, as chief mate (on duty on the bridge throughout the entire voyage) on the vessel for which the application is made for. Out of the 6 trips, there must be at least 2 inwards trips and 2 outward trips; and
 - 2 inward trips and 2 outward trips through the compulsory pilotage area of the Port with a licenced pilot, while in command of the vessel for which the application is made for;
- 14.2.2. For a PEC to be issued for night time operations, a minimum of one inward trip and one outward trip shall be conducted at night.
- 14.2.3. For a run to be considered to have taken place at night, it must commence no earlier than 30 minutes after sunset and be completed no less than 30 minutes before sunrise.

15. PEC assessment requirements

15.1. PEC examination and assessment

- 15.1.1. An applicant for a PEC or a PEC upgrade must demonstrate knowledge, skills and competence in piloting and berthing the pilot exempt vessel and the prescribed PEC training syllabus for the issue of a Pilot Exempt Certificate or an upgrade.
- 15.1.2. The PEC applicant must submit the application, complete the examination and assessment process as soon as practical but no later than 90 days after completing the Darwin Harbour Operating Experience prescribed in clause 14.2.
- 15.1.3. If a PEC applicant does not submit the application, complete the examination and assessment process within 90 days of completing the Darwin Harbour Operating Experience prescribed in clause 14.2, then the PEC applicant may have to submit a new application, undertake additional trips and/or assessments as deemed necessary by the pilotage authority.

15.2. Issue of a new PEC

- 15.2.1. The assessment of PEC syllabus, knowledge, skills and competence will comprise of the following components:
 - 15.2.1.1. Written Examination - A written exam set and marked by the pilotage authority, achieving a mark of not less than 75% in written exam.
 - 15.2.1.2. Blank Chart Examination - A blank chart exam set and marked by the pilotage authority, achieving a mark of not less than 75% in blank chart. The blank chart examination consists of a series of charts upon which key navigation information has been obscured. The PEC candidate is required to supply the obscured information.
 - 15.2.1.3. Assessment Trip - 1 inward and 1 outward Assessment Trip with a licenced pilot through the zones of the compulsory pilotage area for which the application is made. The assessment trip will include oral examination by the licenced pilot of the candidate's knowledge of the PEC syllabus.
- 15.2.2. The written examination consists of a series of questions/scenarios that examine the candidate's:
 - local knowledge and understanding;
 - bridge instruments and pilotage equipment;
 - basic shiphandling;
 - navigation;
 - port communication procedures
 - emergency response and adverse situation procedures; and
 - other topics from the PEC syllabus.
- 15.2.3. If the candidate fails either the written exam or the blank chart, the outstanding assessment item must be reattempted. The candidate will be given one more attempt to pass the examination. At the discretion of the pilotage authority, small deficiencies in either the written exam or the blank chart may be assessed orally.

- 15.2.4. An applicant shall be deemed to have failed a practical Assessment Trip if a written passage plan has not been produced for the passage through the compulsory pilotage area.

15.3. Unsuccessful candidate

- 15.3.1. If a PEC candidate is unsuccessful in passing an assessment event they will be allowed a second attempt for that assessment event.
- 15.3.2. The unsuccessful PEC candidate must be provided with feedback to enable them to prepare for the next attempt.
- 15.3.3. A PEC applicant who does not meet the required standard in any component of the PEC examination and assessment may, at the discretion of the pilotage authority, be required to complete further trips under the supervision of a licenced pilot prior to being re-examined and/or re-assessed.

15.4. Additional knowledge

In recognition of the benefits to be gained by the completion of Bridge Resource Management and emergency procedures training, the pilotage authority encourages PEC applicants to have completed such training at an AMSA accredited training provider.

15.5. Upgrade of a PEC

- 15.5.1. Where an existing Pilot Exempt Master wishes to upgrade their PEC for a different vessel or to add additional zones of the compulsory pilotage area not currently endorsed on their PEC, they shall apply in writing to the pilotage authority.
- 15.5.2. Each and all of the requirements listed in clauses 15.6, 15.7 and 15.8 will apply where an existing Pilot Exempt Master seeks endorsement for a different vessel and zone or zones of the compulsory pilotage area of the Port.
- 15.5.3. The assessment trips for upgrade of a PEC cannot be combined with a revalidation or other assessment trips.
- 15.5.4. Where a Pilot Exempt Master wishes to upgrade to a towage PEC the requirements in [Section 16](#) must be met.

15.6. Upgrade of a PEC to an additional zone

Where an existing Pilot Exempt Master wants to add additional zones of the compulsory pilotage area not currently endorsed on their PEC, they shall:

- 15.6.1. apply in writing to the pilotage authority on the form provided stating the nature of the desired upgrade; and
- 15.6.2. meet the requirements for the initial issue of the PEC for the relevant zone as per clauses [13.9](#) & [14.2](#), including trips and assessments.

15.7. Upgrade of a PEC to an additional vessel

Where an existing Pilot Exempt Master wishes to upgrade their PEC for a different vessel not currently endorsed on their PEC, they shall:

- 15.7.1. apply in writing to the pilotage authority on the form provided stating the nature of the desired upgrade; and
- 15.7.2. where the pilotage authority deems the vessels are not similar in manoeuvring characteristics, or the upgraded vessel poses additional risk, 1 inward and 1 outward Assessment Trip with a licenced pilot through the relevant zones of the compulsory pilotage area must be completed. The assessment will include oral examination by the licenced pilot of the candidate's knowledge of the PEC syllabus.

15.8. Additional trips/assessments

The pilotage authority may require additional trips and/or assessments to be completed as deemed necessary by the pilotage authority where the upgrade is different from applicant's recent experience as a Master or a Pilot Exempt Master.

16. Towage PECs

16.1. Scope

This section applies to the movement of dumb barges, pontoons or similar object with a tug towing, pushing or rigidly connected as a composite unit (tow).

This section does not apply to harbour towage where tugs assist with the manoeuvring of vessels for the purpose of berthing, unberthing or a dead ship (cold) move with a pilot embarked.

16.2. Maximum length and restrictions

- 16.2.1. The maximum permissible combined length for which a towage PEC can be issued is 100 meters.
- 16.2.2. The Pilot Exempt Master shall only have one vessel connected to the object. A second vessel may assist the move by leaning on but not connecting to the object.
- 16.2.3. Where two or more vessels are connected to the object a licenced pilot shall conduct the move.
- 16.2.4. The Pilot Exempt Master is to take positive control of the assisting vessel and shall have an agreed procedure including agreed method and phraseology for communication. The exempt Master has overall responsibility for the safe conduct, planning and execution of the move.
- 16.2.5. The assisting vessel shall not pass ahead of the tug and tow without direction and the master or coxswain of the assisting vessel shall assess the risk of passing ahead.
- 16.2.6. The Pilot Exempt Master who holds a towage PEC may undertake a tow of objects up to the maximum combined length stated on his PEC. There is no requirement for objects to be named on the PEC.
- 16.2.7. A towage PEC may be issued for up to four named tug vessels. The vessels shall be nominated by the applicant and, where suitable experience has been demonstrated, the pilotage authority shall name the vessels on the Master's Pilot Exempt Certificate.
- 16.2.8. In the case of a class of vessels where the pilotage authority is satisfied with the similarity of the vessels, the class may be annotated on the Master's Pilot Exempt Certificate.

16.3. Towage PEC training syllabus

In addition to the training syllabus of a PEC described in clause 14, an applicant for a towage PEC must demonstrate knowledge, skills and competence in the following:

- 16.3.1. shiphandling whilst towing;
- 16.3.2. the limitations and benefits of different configurations such as towing astern, being hipped up and pushing ahead;
- 16.3.3. the International Regulations for the Prevention of Collision at Sea requirements for lights and shapes for vessels engaged in towing;
- 16.3.4. the risks posed to vessels including girding and collision; and

- 16.3.5. the additional constraints and considerations for connecting dumb barges and pontoons to moorings.

16.4. Darwin Harbour operating experience

- 16.4.1. An applicant for a towage PEC shall produce to the pilotage authority documented evidence of experience operating the vessel for which exemption is sought in the port of Darwin in accordance with the provisions of this clause.
- 16.4.2. Within 12 months immediately preceding the date of application, the applicant must either:
- 16.4.2.1. complete a minimum of 8 trips through the compulsory pilotage area of the Port with a licenced pilot, in command of the tug and barge combination of the maximum Length for which the application is made for, with a minimum of 3 inward trips and 3 outward trips; or
 - 16.4.2.2. complete not less than:
 - 6 trips through the compulsory pilotage area of the Port with a licenced pilot or the Pilot Exempt Master, as chief mate (on duty on the bridge throughout the entire voyage) on the of tug and barge combination of the maximum Length for which the application is made for, with a minimum of 2 inward trips and 2 outward trips; and
 - 2 inward trips and 2 outward trips through the compulsory pilotage area of the Port with a licenced pilot, in command of the tug and barge combination of the maximum Length for which the application is made for.
- 16.4.3. For a PEC to be issued for night time operations, a minimum of one inward trip and one outward trip shall be conducted at night.
- 16.4.4. For a run to be considered to have taken place at night, it must commence no earlier than 30 minutes after sunset and be completed no less than 30 minutes before sunrise.

16.5. Towage PEC examination and assessments

- 16.5.1. An applicant for a towage PEC or a towage PEC upgrade must demonstrate knowledge, skills and competence in piloting and berthing the towing vessel and the tow; and the prescribed towage PEC training syllabus for the issue of a towage PEC or an upgrade.
- 16.5.2. The towage PEC applicant must also meet the requirements prescribed in clause 15.1.2 and 15.1.3.

16.6. Issue of a towage PEC

Where a Master wants to obtain a towage PEC, they must comply with the following requirements:

- 16.6.1. complete all the requirements for the issue of a PEC for the vessel and the zones as per clause 13, 14 and 15 and
- 16.6.2. successfully complete a towage supplement written exam achieving a minimum mark of 75% or more; and
- 16.6.3. successfully complete 1 inward and 1 outward Assessment Trip with a licenced pilot while the applicant is in command of the tug and barge combination.

16.7. Upgrade an existing PEC to a towage PEC

Where an existing Pilot Exempt Master wants to upgrade a PEC for towing, they shall comply with the following requirements:

- 16.7.1. complete not less than 4 trips through the compulsory pilotage area of the Port with a licenced pilot, in command of the tug and barge combination of the maximum Length for which the application is made for. Out of the 4 trips, there must be at least 2 inwards trips and 2 outward trips; and
- 16.7.2. pass a towage supplement exam achieving a minimum mark of 75%; and
- 16.7.3. successfully complete 1 inward and 1 outward Assessment Trip with a licenced pilot while the applicant is in command of the tug and barge combination.

16.8. Upgrade a towage PEC to an increased combined length

Where an existing Towage Pilot Exempt Master wants to upgrade their towage PEC to a higher combined length for the same vessel for which they currently hold the towage PEC, they shall comply with the following requirements:

- 16.8.1. apply in writing to the pilotage authority on the form provided stating the nature of the desired upgrade and
- 16.8.2. successfully complete 1 inward Assessment Trip with a licenced pilot, while the applicant is in command of the tug and barge combination for which the upgrade is required.

16.9. Upgrade a towage PEC to an additional vessel

Where an existing towage Pilot Exempt Master wants to upgrade their towage PEC to another vessel, they shall comply with the following requirements:

- 16.9.1. apply in writing to the pilotage authority on the form provided stating the nature of the desired upgrade;
- 16.9.2. for an upgrade of a towage PEC to an additional vessel, meet the requirements of clauses 15.7 and 15.8; and
- 16.9.3. in addition to clause 16.9.2, successfully complete 1 inward and 1 outward Assessment Trip with a licenced pilot while the applicant is in command of the tug and barge combination.

16.10. Upgrade a towage PEC to an additional zone

Where an existing towage Pilot Exempt Master wants to upgrade their towage PEC to another vessel and/or additional zone/s they shall comply with the following requirements:

- 16.10.1. apply in writing to the pilotage authority on the form provided stating the nature of the desired upgrade and;
- 16.10.2. for an upgrade of towage PEC to an additional zone/s, meet the requirements of clauses 13.9 & 14.2.

16.11. Additional trips/assessments

The pilotage authority may require additional trips and/or assessments to be completed as deemed necessary by the pilotage authority where the upgrade combination is different from applicant's recent experience as a Master or a Pilot Exempt Master.

17. Ongoing maintenance of a PEC and towage PEC

17.1. Pilotage Exempt Master's responsibility

- 17.1.1. It is the Pilotage Exempt Master's responsibility to maintain the currency of his PEC by monitoring the expiry date and revalidating the PEC prior to its expiry.
- 17.1.2. The Pilotage Exempt Master shall maintain a record of trips through the relevant zones of compulsory pilotage area. The record must show, at a minimum, the date, time, the zones covered and the starting and ending points of the voyage.

17.2. PEC and towage PEC revalidation

- 17.2.1. A PEC and a towage PEC may be revalidated by the pilotage authority on the written application of the PEC holder. An application for revalidation shall be lodged not later than 14 days prior to the expiry date shown on the PEC.
- 17.2.2. Failure to revalidate the PEC before the expiry date may result in the PEC being cancelled and the applicant will have to apply for a new PEC.
- 17.2.3. In order to revalidate a PEC, the Pilot Exempt Master must meet the following requirements:
 - 17.2.3.1. a trip record demonstrating maintenance of currency as described in clause 17.2.4;
 - 17.2.3.2. a report of successful completion of assessment trip by a licenced pilot.
 - 17.2.3.3. a valid medical fitness certificate; and
 - 17.2.3.4. a valid certificate of competency.
- 17.2.4. **Trip record**
 - 17.2.4.1. It is the Pilotage Exempt Master's responsibility for keeping and producing documented records at the time of revalidation.
 - 17.2.4.2. The Pilotage Exempt Master shall produce documented evidence of completing not less than 12 trips of the pilotage zones while working as Pilotage Exempt Master on the vessel during the 24 month validity period of their PEC.
 - 17.2.4.3. The 12 trips must be well distributed over the 24 months period with at least 2 trips every 150 days so that the PEC Master maintains current and up to date knowledge of operating a vessel in Darwin harbour.
 - 17.2.4.4. A PEC Master who does not operate a vessel in Darwin Harbour through the annotated zones of the PEC for 2 trips every 150 days must inform the pilotage authority and complete one assessment trip before operating the vessel as a PEC Master.
 - 17.2.4.5. The report of the Assessment Trip conducted as per clause [17.2.4.4](#) must be submitted to the pilotage authority for approval.
 - 17.2.4.6. The pilotage authority will evaluate the trips of the pilotage zones and indicate the zones for which the PEC can be revalidated.

- 17.2.4.7. Where a PEC is held for a zone within the compulsory pilotage area into which the exempt Master requires access only for emergency management (e.g. cyclone moorings) or to service emergency management equipment, 2 trips per year will be deemed sufficient and the PEC zone endorsement shall be annotated “(Σ)” to indicate that the exemption for that zone applies only for the purposes of servicing emergency management equipment or in the case of emergency preparation (e.g. assuming a cyclone mooring).

17.2.5. Assessment trip

The Pilotage Exempt Master is to conduct an inward assessment trip with a licenced pilot through the zones of the compulsory pilotage area annotated on the Pilot Exempt Master’s PEC certificate. The assessment trip report must be submitted to the pilotage authority for approval.

17.2.6. Medical fitness

The Pilotage Exempt Master shall produce a valid medical certificate in accordance with Marine Orders Part 76.

17.2.7. Certificate of competency (COC)

The Pilotage Exempt Master shall produce a valid COC or COR as per initial requirements.

18. Administration and application requirement for PEC licences

18.1. Issue of a new PEC

For issue of PEC, an applicant must submit the following:

- 18.1.1. a written application to the pilotage authority on the form provided
- 18.1.2. a current certificate of competency for the class of vessel
- 18.1.3. a current medical fitness report
- 18.1.4. a trip record under a licenced pilot or a qualified Pilot Exempt Master
- 18.1.5. evidence of the applicant's successful completion of written a examination of the PEC syllabus; and
- 18.1.6. an assessment trip report by licenced pilot for 1 inward and 1 outward assessment trip.

18.2. Adding another vessel or class of vessels to an existing PEC

A PEC holder must submit the following to upgrade to a towage PEC

- 18.2.1. a written application to the pilotage authority on the form provided;
- 18.2.2. a current PEC for the vessel and applicable zones;
- 18.2.3. an assessment trip report by licenced pilot for 1 inward and 1 outward assessment trip on the vessel to be added; and
- 18.2.4. evidence of additional trips and or assessment if applicable.

18.3. Adding another zone or zones to an existing PEC

A PEC holder must submit the following to add a zone or zones to an existing PEC:

- 18.3.1. a written application to the pilotage authority on the form provided
- 18.3.2. a current PEC for the vessel and the applicable zones
- 18.3.3. a trip record under licenced pilot or qualified Pilot Exempt Master for the zones for which application is being made
- 18.3.4. evidence of the applicant's successful completion of a written examination of the PEC syllabus for the zone to be added
- 18.3.5. an assessment trip report by a licenced pilot for 1 inward and 1 outward trip through the zones to be added.

18.4. Issue of a towage PEC

An applicant must submit the following for issue of a towage PEC:

- 18.4.1. a written application to the pilotage authority on the form provided;
- 18.4.2. evidence of meeting the requirements of clause 13, 14 and 15;
- 18.4.3. evidence of completion of towage supplement written examination; and
- 18.4.4. an assessment Trip report by a licenced pilot for 1 inward and 1 outward Assessment Trip while the applicant is in command of the tug and barge combination.

18.5. Upgrading an existing PEC to a towage PEC

A PEC holder must submit the following to upgrade to a towage PEC:

- 18.5.1. a written application to the pilotage authority on the form provided;
- 18.5.2. a current PEC for the vessel and applicable zones;
- 18.5.3. a trip record under a licenced pilot or a qualified Pilot Exempt Master while towing a combination of the tug and barge;
- 18.5.4. evidence of completion of towage supplement written examination;
- 18.5.5. an assessment trip report by a licenced pilot for 1 inward and 1 outward assessment trip while the applicant is in command of the tug and barge combination; and
- 18.5.6. evidence of additional trips and or assessment if applicable.

18.6. Increasing length of a towage PEC

A towage PEC holder must submit the following to upgrade their towage PEC to increase length:

- 18.6.1. a written application to the pilotage authority on the form provided stating the nature of the desired upgrade; and
- 18.6.2. an assessment trip report for 1 inward assessment trip with a licenced pilot, while the applicant is in command of the tug and barge combination of the increased length.

18.7. Adding another vessel to a towage PEC

A towage PEC holder must submit the following to upgrade their towage PEC to another vessel:

- 18.7.1. a written application to the pilotage authority on the form provided;
- 18.7.2. evidence of meeting the vessel upgrade requirement as per clause 15.7 and 15.8;
- 18.7.3. an assessment trip report for 1 inward assessment trip with a licenced pilot, while the applicant is in command of the upgrade vessel and barge combination; and
- 18.7.4. evidence of additional trips and or assessment if applicable.

18.8. Adding another zone or zones to a towage PEC

A towage PEC holder must submit the following to upgrade their towage PEC to another zone:

- 18.8.1. a written application to the pilotage authority on the form provided; and
- 18.8.2. evidence of meeting the requirements of clause 13.9 & 14.2.

18.9. Revalidation of a PEC

A PEC holder must submit the following for revalidating their PEC:

- 18.9.1. a written application to the pilotage authority on the form provided;
- 18.9.2. a current certificate of competency for the class of vessel;
- 18.9.3. a current medical fitness report;
- 18.9.4. a trip record as a Pilot Exempt Master; and
- 18.9.5. an assessment trip report by licenced pilot for 1 inward assessment trip.

18.10. Revalidation of a towage PEC

A towage PEC holder must submit the following for revalidating their towage PEC

- 18.10.1. a written application to the pilotage authority on the form provided;
- 18.10.2. a current certificate of competency for the class of vessel;
- 18.10.3. a current medical fitness report;
- 18.10.4. a trip record as a Pilot Exempt Master; and
- 18.10.5. an assessment trip report by licenced pilot for 1 inward assessment trip while towing.

19. Promulgation & review

19.1. Transitional matters

- 19.1.1. Upon the commencement of this version of the Pilotage Standard, a pilot licence issued under previous versions of the Pilotage Standard is taken to be a pilot licence issued under the Pilotage Standard and in accordance with Part 8, Division 4 of the Ports Management Act 2015 and continues in force for the balance of the term for which it was issued and will be subject to the conditions and requirements of the Pilotage Standard.
- 19.1.2. On and from the commencement of the Pilotage Standard, a pilotage exemption certificate issued under previous versions of the Pilotage Standard is taken to be a pilotage exemption certificate issued under the Pilotage Standard and in accordance with Part 8, Division 4 of the *Ports Management Act 2015* and continues in force for the balance of the term for which it was issued and subject to the conditions to which it was subject immediately before the commencement of the current Pilotage Standard.

19.2. Review period

- 19.2.1. The Pilotage Standard shall be reviewed every 24 months for currency and applicability to the shipping trade at the time of the review.
- 19.2.2. The Pilotage Standard may be reviewed at any time a change in legislation or pilotage regulations dictate or as deemed necessary by the pilotage authority.



Captain. Anil Chadha

Regional Harbour Master - Port of Darwin
Pilotage Authority - Port of Darwin

Date of issue: 17 June 2022

Date of the pilotage standard coming into force: 22 June 2022

20. Appendix A: Berth/Ship endorsement matrix – With (16 June 2022)

Berth/ Ship		EAW	BLB	FHW	SHW (O)	MUBR	Seaswift (N)(S)(L)	ABF	FW & Pearl	Hudson Creek	
		A	B	C	D	E	F	G	H	I	J
1	<50	Pre-requisites; 1,2,3,8,9,10,13,18, AM4, AM5 N1-4 Observe (any) - 2 Mentored - 1 Assessed - 1 in		Pre-requisites; 1,2,8,9,10,13,18, AM4, AM5 Observe (any) - 2 Mentored - 1 Assessed - 1 in	Pre-requisites; 1,2,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 1 Assessed - 1 in	Pre-requisites; 1,2,3,6,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe - 2 (if not I1) Mentored - 1 Assessed - 1 in	Pre-requisites; 1,2,5,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 1 Assessed - 1 in	Pre-requisites; 1,2,3,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 or AB2 Mentored - 1 Assessed - 1 in	Pre-requisites; 1,2,5,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 1 Assessed - 1 in	Pre-requisites; 1,2,3,6,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 1 Assessed - 1 in	
2	50-100	Pre-requisites; 1,2,3,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (any) - 2 Mentored - 1 Assessed - 1 in If AB2 then also AB1		Pre-requisites; 1,2,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (any) - 2 Mentored - 1 Assessed - 1 in If C2 then also C1	Pre-requisites; 1,2,8,9,10,11,12,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 1 Assessed - 1 in If D2 then also D1		Pre-requisites; 1,2,5,8,9,10,11,12,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 1 Assessed - 1 in If F2 then also F1	Pre-requisites; 1,2,3,8,9,10,11,12,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 or AB2 Mentored - 1 Assessed - 1 in If G2 then also G1		Pre-requisites; 1,2,3,6,8,9,10,11,12,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 1 Assessed - 1 in If I2 then also I1	
3	100-140	Pre-requisites; 1,2,3,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (any) - 2 Mentored - 6 (NLT 4 in) Assessed - 1 in	Pre-requisites; 1,2,3,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (any) - 2 Mentored - 6 (NLT 4 in) or 2 (NLT 1 in) if A3 Assessed - 1 in, 1 out if B3 then also A3	Pre-requisites; 1,2,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (any) - 2 Mentored - 4 (NLT 2 in) Assessed - 1 in If C3 then also C1 & C2							
4	140-190	Pre-requisites; 1,2,3,8,9,10,11,12,13,14,15,18, AM4, AM5 N1-4 Observe (<150) - 2 or AB2/AB3 Observe (>150) - 2 Mentored - 6 (NLT 4 in) Assessed - 1 in	Pre-requisites; 1,2,3,8,9,10,11,12,13,14,15,18, AM4, AM5 N1-4 Observe (<150) - 2 or AB2/AB3 Observe (>150) - 2 Mentored - 6 (NLT 4 in) Assessed - 1 in if B4 then also A4	Pre-requisites; 1,2,8,9,10,11,12,13,14,15,18, AM4, AM5 N1-4 Observe (<150) - 2 or C2 or C3 Observe (>150) - 2 Mentored - 4 (NLT 2 in) Assessed - 1 in							
5	190-250	Pre-requisites; 1,2,3,8,9,10,11,12,13,14,15,18, AM4, AM5 K5-7, L5-7, M1-4, N5-7 Observe (<150) - 2 or AB2 or A3 or B3 Observe (>200) - 2 Mentored - 6 (NLT 4 in) Assessed - 1 in, 1 out If A5 then also A4		Pre-requisites; 1,2,8,9,10,11,12,13,14,15,18, AM4, AM5 K5-7, L5-7, M1-4, N5-7 Observe (<150) - 2 or C2/C3 Observe (>200) - 2 Mentored - 6 (NLT 4 in) Assessed - 1 in, 1 out If C5 then C4							
6	250-300			Pre-requisites; 1,2,8,9,10,11,12,13,14,15,18, AM4, AM5 K5-7, L5-7, M1-4, N5-7 Observe (>150) - 2 or C4 or C5 Observe (>250) - 2 Mentored - 4 (NLT 2 in) or 2 (NLT 1 in) if T6 Assessed - 1 in, 1 out If C6 and A5 then C5							
7	300-350			Pre-requisites; 1,2,8,9,10,11,12,13,14,15,18, AM4, AM5 K5-7, L5-7, M1-4, N5-7 Observe (>200) - 2 or C5 or C6 Observe (>300) - 2 or C5 or C6 Mentored - 4 (NLT 2 in) or C5 or C6 Assessed - 1 in, 1 out							

Appendix A: Berth/Ship endorsement matrix – With (contd.)

Berth/ Ship		Alpha Anchorages	Bravo Anchorages	Tango Anchorage	Charlie Anchorages	Delta Anchorages	Echo Anchorages	SBA	MSB	Channel Is LPG	DLNG
		K	L	M	N	O	P	Q	R	S	T
1	<50	Pre-requisites; 1,8,9,10,11,13,18, AM4, AM5	Pre-requisites; 1,8,9,10,11,13,18, AM4, AM5	Pre-requisites; 1,8,9,10,11,13,18, AM4, AM5	Pre-requisites; 1,2,3,8,9,10,11,13, 18, AM4, AM5 Observe (any) - 1 Assessed - 1 if N1-4 and A5, C5, C6 or C7 then also N5-7			Pre-requisites; 1,2,5,8,9,10,11,13,18, AM4, AM5 Observe (any) - 1 Assessed - 1	Pre-requisites; 1,2,3,7,8,9,10,11,13,18, AM4, AM5 N1-4 Observe (any) - 2 Mentored - 10 Assessed - 1 in, 1 out		
2	50-100								Pre-requisites; 1,2,3,7,8,9,10,11,13,18, AM4, AM5 N1-4 Observe (50-100) - 2 Mentored - 10 (NLT 5 in) Assessed - 1 in, 1 out If R2 then also R1	Pre-requisites; 1,2,4,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe - 2 Mentored - 2 (NLT 1 in) Assessed - 1	
3	100-140										
4	140-190										
5	190-250	Pre-requisites; 1,8,9,10,11,13,15,18, AM4, AM5 If K5-7 then also K1-4	Pre-requisites; 1,8,9,10,11,13,15,18, AM4, AM5 If L5-7 then also L1-4		Pre-requisites; 1,2,3,8,9,10,11,13,15, 18, AM4, AM5 Observe (any) - 1 Assessed - 1 If N5-7 then also N1-4						Pre-requisites; 1,2,4,8,9,10,11,12,13,14,15,16,17,18, AM4, AM5 K5-7, L5-7, M1-4, N5-7 Observe - 3 Mentored - 6 (NLT 4 in) or 4 (NLT 3 in) if C6 or V6 Assessed - 1 in, 1 out
6	250-300										
7	300-350										

Appendix A: Berth/Ship endorsement matrix – With (contd.)

Berth /Ship		ILPG	ILNG	W	Single Tug Cold Move	Multi-Tug Cold Move
		U	V		SA	MA
1	<50				Pre-requisites; 11,12 Any 3 of A1 to F1, H1 to J1 or R1 Observe (any) - 1 Assessed - 1	
2	50-100				Pre-requisites; Any 3 of A2 to D2, F2 to J2 or R2 or S2 Observe (any) - 1 Assessed - 1 If SA2 then also SA1	Pre requisites; 15 Any 3 of A2 to D2, F2 to J2 or R2 or S2 & SA2 Observe (any) - 1 Assessed - 1
3	100-140				Pre requisites; A3, B3 & C3 Observe (any) - 1 Assessed - 1 If SA3 then also SA1 & SA2	Pre-requisites; 14,15 SA3 Observe (any) - 1 Assessed - 1 If MA3 then also MA2
4	140-190	Pre-requisites; 1,2,3,6,8,9,10,11,12,13,14,15,16,17, 18, AM4, AM5 M1-4, N1-4 Observe - 3 or 2 if V6-7 Mentored - 6 (NLT 4 in) or 4 (NLT 3 in) if A5 or C5 or 2 if V6-7 Assessed - 1 in, 1 out				
5	190-250	Pre-requisites; 1,2,3,6,8,9,10,11,12,13,14,15,16,17, 18, AM4, AM5 K5-7, L5-7, M1-4, N5-7 Observe - 3 or 2 if V6-7 Mentored - 6 (NLT 4 in) or 4 (NLT 3 in) if A5 or C6 or 2 if V6-7 Assessed - 1 in, 1 out If U5 then also U4				
6	250-300		Pre-requisites; 1,2,3,6,8,9,10,11,12,13,14,15,16,17,18, AM4, AM5 K5-7, L5-7, M1-4, N5-7			
7	300-350		Observe - 3 Mentored - 6 (NLT 4 in) or 4 (NLT 3 in) if C6 or T6 Assessed - 1 in, 1 out			

1	Area A - Outer Harbour Area
2	Area B - City Area
3	Area C - East Arm Area
4	Area D – Middle Arm Area
5	Area E – Frances Bay Area
6	Area F – Hudson Bladin Area
7	Area G – Marine Supply Base
8	Navigation
9	Basic Shiphandling
10	Bridge Instruments and Pilotage Equipment
11	Bridge Resource Management for Pilots (BRM-P)
12	Use of Tugs
13	Emergency Procedures
14	Advanced Marine Pilotage Training (AMPT)
15	Advanced Shiphandling & Tug Utilisation
16	Berth Specific Skills
17	LNG / LPG
18	Vessel Traffic Services or Harbour Control
AM4	Blank Chart and Written Exam
AM5	Pilotage Assessment

21. Appendix B: Berth/Ship endorsement matrix – Without (16 June 2022)

Berth/ Ship		EAW	BLB	FHW	SHW (O)	MUBR	Seaswift (N)(S)(L)	ABF	FW & Pearl	Hudson Creek	J
		A	B	C	D	E	F	G	H	I	
1	<50	Pre-requisites; 1,2,3,8,9,10,13,18,AM4, AM5 N1-4 Observe (<150) - 2 Mentored - 4 (NLT 2 in) Assessed - 1 in, 1 out		Pre-requisites; 1,2,8,9,10,13,18, AM4, AM5 N1-4 Observe (<150) - 2 Mentored - 4 (NLT 2 in) Assessed - 1 in, 1 out	Pre-requisites; 1,2,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (<150) - 2 Mentored - 2 (NLT 1 in) Assessed - 1 in, 1 out	Pre-requisites; 1,2,3,6,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe - 2 (if not I1) Mentored - 5 (NLT 3 in) or 2 (NLT 1 in) if I1 Assessed - 1 in, 1 out	Pre-requisites; 1,2,5,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 4 (NLT 2 in) Assessed - 1 in, 1 out	Pre-requisites; 1,2,3,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 or AB2 Mentored - 3 (NLT 2 in) or 1(in) if AB2 Assessed - 1 in	Pre-requisites; 1,2,5,8,9,10,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 (NLT 2 in) Mentored - 4 (NLT 2 in) Assessed - 1 in, 1 out	Pre-requisites; 1,2,3,6,8,9,10,13,18, AM4, AM5, N1-4, Q1-2 Observe (any) - 2 Mentored - 5 (NLT 3 in) Assessed - 1 in, 1 out	
2	50-100	Pre-requisites; 1,2,3,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (<150) - 2 Mentored - 5 (NLT 2 in) Assessed - 1 in, 1 out If AB2 then also AB1		Pre-requisites; 1,2,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (<150) - 2 Mentored - 5 (NLT 2 in) or 2 (NLT 1 in) if C1 Assessed - 1 in, 1 out If C2 then also C1	Pre-requisites; 1,2,8,9,10,11,12,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 2 (NLT 1 in) Assessed - 1 in, 1 out If D2 then also D1		Pre-requisites; 1,2,5,8,9,10,11,12,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 Mentored - 6 (NLT 4 in) Assessed - 1 in, 1 out If F2 then also F1	Pre-requisites; 1,2,3,8,9,10,11,12,13,18, AM4, AM5 N1-4, Q1-2 Observe (any) - 2 or AB2 Mentored - 3 (NLT 2 in) or 1(in) if AB2 Assessed - 1 in If G2 then also G1		Pre-requisites; 1,2,3,6,8,9,10,11,12,13, AM4, AM5, N1-4, Q1-2 Observe (any) - 2 Mentored - 5 (NLT 3 in) or 2 (NLT 1 in) if I1 Assessed - 1 in, 1 out If I2 then also I1	
3	100-140	Pre-requisites; 1,2,3,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (<150) - 2 Mentored - 6 (NLT 4 in) Assessed - 1 in, 1 out	Pre-requisites; 1,2,3,8,9,10,11,12,13,18, AM4, AM5 N1-4 Observe (<150) - 2 Mentored - 6 (NLT 4 in) or 2 (NLT 1 in) if A3 Assessed - 1 in, 1 out if B3 then also A3	Pre-requisites; C2 Observe (<150) - 2 Mentored - 8 (NLT 3 in) Assessed - 1 in, 1 out							
4	140-190	Pre-requisites; 14,15 A3, N1-4 Observe (>150) - 2 Mentored - 6 (NLT 3 in) Assessed - 1 in, 1 out	Pre-requisites; 14,15 B3, N1-4 Observe (>150) - 2 Mentored - 3 (NLT 2 in) Assessed - 1 in, 1 out if B4 then also A4	Pre-requisites; 14,15 C3 Observe (>150) - 2 Mentored - 6 (NLT 4 in) Assessed - 1 in, 1 out							
5	190-250	Pre-requisites; A4, C3, K5-7, L5-7, M1-4, N5-7 Observe (>200) - 2 Mentored - 4 (NLT 2 in) Assessed - 1 in, 1 out		Pre-requisites; C3, K5-7, L5-7, M1-4, N5-7 Observe (>200) - 2 Mentored - 3 (NLT 2 in) Assessed - 1 in, 1 out if C5 and A4, B4 or D4 then C4							
6	250-300			Pre-requisites; C5 and A4 or B4 Observe (>250) - 2 Mentored - 3 (NLT 2 in) Assessed - 1 in, 1 out							
7	300-350			Pre-requisites; C6 Assessed - 1 in, 1 out							

Appendix B: Berth/Ship endorsement matrix – Without (contd.)

Berth/ Ship		Alpha Anchorage	Bravo Anchorage	Tango Anchorage	Charlie Anchorage	Delta Anchorage	Echo Anchorage	SBA	MSB	Channel Is LPG	DLNG		
		K	L	M	N	O	P	Q	R	S	T		
1	<50	Pre-requisites; 1,8,9,10,11,13,18, AM4, AM5	Pre-requisites; 1,8,9,10,11,13,18, AM4, AM5	Pre-requisites; 1,8,9,10,11,13,18, AM4, AM5	Pre-requisites; 1,2,3,8,9,10,11,13,18 ,AM4, AM5 Observe (any) - 1 Assessed - 1 if N1-4 and A5, C5, C6 or C7 then also N5-7			Pre-requisites; 1,2,5,8,9,10,11,13,18, AM4, AM 5 Observe (any) - 1 Assessed - 1	Pre-requisites; 1,2,3,7,8,9,10,11,13,18, AM4, AM5 N1-4 Observe (any) - 2 Mentored - 10 Assessed - 1 in, 1 out				
2	50-100								Pre-requisites; 1,2,3,7,8,9,10,11,13,18, AM4, AM 5 N1-4 Observe (50-100) - 2 Mentored - 10 (NLT 5 in) Assessed - 1 in, 1 out If R2 then also R1			Pre-requisites; 1,2,4,8,9,10,11,12,13,18, AM4, AM5 Any 2 of A2 to R2 Observe - 2 Mentored - 4 (NLT 2 in) Assessed - 1 in, 1 out	
3	100-140								Pre-requisites; 1,2,4,8,9,10,11,12,13,18, AM4, AM5 Any 2 of A2 to R2 Observe - 2 Mentored - 4 (NLT 2 in) Assessed - 1 in, 1 out				
4	140-190												
5	190-250	Pre-requisites; 1,8,9,10,11,13,15,18, AM4, AM5 If K5-7 then also K1-4	Pre-requisites; 1,8,9,10,11,13,15,18, AM4, AM5 If L5-7 then also L1-4		Pre-requisites; 1,2,3,8,9,10,11,13,15,18, AM4, AM5 Observe (any) - 1 Assessed - 1 If N5-7 then also N1-4						Pre-requisites; 4,16,17 Either A5 or V6 or (C5, C6 or C7) Observe - 2 Mentored - 10 (NLT 7 in) Assessed - 1 in, 1 out		
6	250-300												
7	300-350												

Appendix B: Berth/Ship endorsement matrix – Without (contd.)

Berth /Ship		ILPG	ILNG	W	Single Tug Cold Move	Multi-Tug Cold Move
		U	V		SA	MA
1	<50				Pre-requisites; 11,12 Any 3 of A1 to F1, H1 to J1 or R1 Observe (any) - 1 Assessed - 1	
2	50-100				Pre-requisites; Any 3 of A2 to D2, F2 to J2, R2 or S2 Observe (any) - 1 Assessed - 1 If SA2 then also SA1	Pre-requisites; 15, SA2 Observe (any) - 2 Assessed - 1
3	100-140				Pre-requisites; A3, B3 & C3 Observe (any) - 1 Assessed - 1 If SA3 then also SA1 & SA2	Pre-requisites; 12,15, SA3 Observe (any) - 2 Assessed - 1 If MA3 then also MA2
4	140-190	Pre-requisites; 6,16,17, N1-4 Observe - 2 Mentored - 10 (NLT 7 in) or 4 (NLT 3 in) if A5 or C5 or 2 if V6-7 Assessed - 1 in, 1 out				
5	190-250	Pre-requisites; 6, 16,17 Either A5 or (C5, C6 or C7) Observe - 2 Mentored - 10 (NLT 7 in) or 6 (NLT 4 in) if U4 or 4 (NLT 3 in) if V6-7 Assessed - 1 in, 1 out If U5 and A5 or C5 then also U4				
6	250-300		Pre-requisites; 6,16,17 Either A5 or T6 or (C5, C6 or C7) Observe - 2 Mentored - 10 (NLT 7 in) Assessed - 1 in, 1 out			
7	300-350					

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8	Navigation
9	Basic Shiphandling
10	Bridge Instruments and Pilotage Equipment
11	Bridge Resource Management for Pilots (BRM-P)
12	Use of Tugs
13	Emergency Procedures
14	Advanced Marine Pilotage Training (AMPT)
15	Advanced Shiphandling & Tug Utilisation
16	Berth Specific Skills
17	LNG / LPG
18	Vessel Traffic Services or Harbour Control
AM4	Blank Chart and Written Exam
AM5	Pilotage Assessment

22. Appendix C: Berthing currency over 36 months – (16 June 2022)

Berth/ Ship		EAW	BLB	FHW	SHW (O)	MUBR	Seaswift (N)(S)(L)	ABF	FW & Pearl	Hudson		A Anch	B Anch	T Anch	C Anch	D Anch	E Anch	SBA	MSB	CH Is LPG	DLNG	ILPG	ILNG		Single Tug Cold Move	Multi- Tug Cold Move
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	SA	MA
1	<50	4		2	2	1	2	2	2	2									2						1	
2	50-100						2			2									2	1					1	
3	100-140																									1
4	140-190	4		2																						
5	190-250																					4				
6	250-300			2																	4					
7	300-350																						4			