

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 1 of 14

1.0 INTRODUCTION

1.1 Scope

1.1.1 This Standard describes the requirements for accepting a vessel for berth at Westridge Terminal ("the Terminal"). This document applies to all ocean going Barges, including Articulated Tug/Barges (AT/B), and covers both the delivery of crude oil and the receipt of refined products (jet fuel).

1.1.2 Any deviation from this Standard requires approval through the FMR process.

1.2 Applicability

1.2.1 This document applies to marine operations at Westridge Terminal.

1.3 Definitions

1.3.1 **Accepted Barge** – A Barge that has undergone screening and vetting and found to meet ALL relevant Criteria for Acceptance items described in section 4.0 below and has adequate risk management in place to safely transfer cargo while berthed at the Terminal.

A signature by the Terminal to the Notice of Readiness tendered by the Master shall serve as confirmation of an Accepted Barge. The Ship/Shore Safety Checklist for the first call on a voyage to the Terminal must be completed prior to this event.

1.3.2 **Barge** – A flat bottomed vessel that is generally unpowered and towed or pushed by other craft. Articulated Tug Barge (AT/B) units are designated in this category.

1.3.3 **Blue Card** - All Flag of Convenience (FOC) Vessels that are covered by an ITF-acceptable agreement are issued with a certificate (known as a "Blue Card") by the ITF Secretariat. This signifies the ITF's acceptance of the wages and working conditions on board.

1.3.4 **Canadian EEZ** – The exclusive economic zone (EEZ) is an area of the sea adjacent to and beyond the territorial sea, extending out to 200 nautical miles from the baselines. Canada's EEZ was formally established in 1997 when the Oceans Act came into force.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 2 of 14

1.3.5 **Chief Engineer** – The person in charge of the propulsion, transfer and other equipment of a vessel calling at the Terminal.

1.3.6 **Denied Barge** – A Barge that does not meet the relevant Criteria for Acceptance items described in section 4.0 below or could pose additional risk to the Terminal or other vessels at the Terminal or in the harbour.

1.3.7 **HMPE** – "High Modulus Polyethylene", a type of synthetic fibre used in high modulus synthetic fibre ropes. OCIMF accepts high modulus synthetic ropes as a viable replacement for winch-stowed steel wire ropes because of HMPE's high strength to weight ratio.

1.3.8 **Kinder Morgan Canada (KMC)** – Operator of the Trans Mountain Pipeline, including Westridge Terminal.

1.3.9 **Loading Master** – A person who is designated by the Terminal to liaise and communicate with a vessel prior to and during her stay at the Terminal about operations at the dock; the Loading Master acts as the Terminal's Representative.

The Loading Master witnesses operations and confirms that safety, vessel and Terminal best practices are being followed. He/she has the authority to immediately stop or abort cargo transfer operations and seek immediate actions and assistance to safeguard the Terminal and the environment if he/she determines that, in his/her sole judgement at the time, the situation so demands.

The Loading Master provides local knowledge and prompt on-scene guidance to the vessel and Terminal during an emergency. The Loading Master's authority does not extend to the vessel or her crew.

The Loading Master updates information in the Terminal's files about the performance of the vessel.

1.3.10 **Master** – The person in overall charge of a vessel and all operations conducted onboard that vessel.

1.3.11 **P&I Club** – A protection and indemnity association of ship owners or operators, offering mutual insurance, generally for third-party liability risks and the defense of claims. There are 13 Clubs that are a member of the International Group of P&I Clubs, which insure the majority of the world's tonnage.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 3 of 14

- 1.3.12 **Physical Inspection** – A procedure whereby the KMC Loading Master boards the vessel and visually verifies information provided in the Pre-Screening for Scheduling Purposes and the Pre-Arrival Checklist prior to berthing and commencing cargo transfer operations.
- 1.3.13 **Ship/Shore Safety Checklist** – A checklist that itemizes the individual and joint safety and operations responsibilities of the vessel and the terminal. This document is based on the requirements of ISGOTT and must be completed prior to commencing every cargo transfer at the Terminal.
- 1.3.14 **SIRE Inspection Report** – The Ship Inspection Report Program (SIRE) is an OCIMF program, which maintains a large up-to-date information database. A key feature of the SIRE program is that it requires a uniform inspection protocol. Inspection reports are maintained on the index for a period of 12 months from the date of receipt and are maintained on the database for 2 years.
- 1.3.15 **Tariff** - Trans Mountain Pipeline ULC Petroleum Tariff, Rules and Regulations Governing the Transportation of Petroleum on file with the National Energy Board and available on the Trans Mountain website:
http://www.kindermorgan.com/business/canada/transmountain_tariffs.cfm
- 1.3.16 **Vessel** – A marine Tanker or Barge capable of transporting petroleum. KMC does not own or operate vessels calling at the Terminal.
- 1.3.17 **Pre-screening for Scheduling Purposes** – The purpose of this process is to check if the vessel has the necessary characteristics to safely transfer cargo at the Terminal before it is accepted for the purpose of scheduling. These characteristics will be confirmed as part of a physical inspection to be conducted by the Loading Master before vessel is granted permission to conduct cargo transfer at Westridge. Pre-screening acceptance does not limit KMC's right to reject any vessel at any time at its sole discretion.
- 1.3.18 **Westridge Terminal** ("the Terminal") – The dock and other facilities located at Trans Mountain Pipeline ULC's Delivery Point on the Burrard Inlet, in Burnaby, British Columbia.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 4 of 14

1.4 Abbreviations**CAP** – Condition Assessment Program**CSA** – Canadian Standards Association**ECDIS** – Electronic Chart Display and Information System**EEZ** – Economic Exclusion Zone**FMR** – Facilities Modification Request**HMPE** – High Modulus Polyethylene**IACS** – International Association of Class Societies**IMO** – International Maritime Organization**ISGOTT** – International Safety Guide for Oil Tankers and Terminals**KMC** – Kinder Morgan Canada**MARPOL** – International Convention for the Prevention of Pollution from Ships**NOR** – Vessel Notice of Readiness**OCIMF** – Oil Companies International Marine Forum**P&I Club** – Protection and Indemnity Association**Paris MoU** – The Paris Memorandum of Understanding on Port State Control**PMV** – Port Metro Vancouver**PPA** – Pacific Pilotage Authority**SCM** – Stern to center of manifold (distance in meters)**SOLAS** – (International Convention for the) Safety of Life at Sea**Tokyo MoU** – Memorandum of Understanding on Port State Control in the Asia-Pacific Region**WCMRC** – Western Canada Marine Response Corporation**2.0 AUTHORITY****2.1 Right to Reject Vessel**

2.1.1 KMC provides transportation service to pipeline shippers. It is the pipeline shippers' responsibility to nominate a suitable vessel to receive or deliver petroleum at the Terminal.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 5 of 14

2.1.2 The Rules and Regulations Governing the Transportation of Petroleum utilizing the pipeline facilities of Trans Mountain Pipeline ULC directs as follows:

2.1.2.1 A Shipper Tendering Petroleum for Delivery to the Westridge Terminal is required to submit a Vessel Proposal Form to Trans Mountain Pipeline ULC prior to the Shipper's first batch leaving the Receipt Point.

2.1.2.2 Trans Mountain Pipeline ULC shall have the right to reject any vessel proposed by the Shipper that does not meet the safety, odour recovery, dimension or other standards and criteria as set from time to time by the Harbour Master of Vancouver, British Columbia and/or Trans Mountain Pipeline ULC. (Trans Mountain ULC Tariff, Section 21.2; see 'Tariff' in Section 1.3.)

3.0 ACCEPTANCE SCREENING PROCESS**3.1 Barge Acceptance – General**

3.1.1 Prior to any cargo transfers involving a Barge berthed at the Terminal, KMC will conduct a two stage Vessel Acceptance Process on behalf of Trans Mountain Pipeline ULC as follows:

- Pre-screening for Scheduling Purposes
- Physical inspection

3.1.2 The objective of the Vessel Acceptance Process is to ensure Barge operations do not endanger personnel, the public, or the environment. To meet this objective, the Vessel Acceptance Process will ensure that Barges accepted for cargo transfer operations at the Terminal:

- Are configured appropriately for safe cargo transfers
- Have no outstanding inspection deficiencies that would materially affect the safe transfer of cargo

3.1.3 KMC shall, after a review of the initially available information provided by the Shipper as part of the Pre-screening for Scheduling Purposes, either accept or deny scheduling of the vessel to the Terminal.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 6 of 14

3.1.4 A vessel that has been deemed acceptable by KMC at the conclusion of the Pre-screening for Scheduling Purposes shall undergo, and successfully pass, a further Physical Inspection prior to being granted final permission to transfer cargo at the Terminal. This inspection shall be conducted by KMC's Loading Master and the results of this inspection shall be documented.

3.1.5 The Vessel Acceptance Process shall be performed before and every time a vessel is scheduled to arrive in PMV for the purposes of cargo transfer at the Terminal. This process shall be performed regardless of whether or not the vessel has been accepted at the Terminal during a previous voyage. However, once accepted and if the schedule requires, the vessel may berth multiple times during a single voyage to allow cargo to be transferred in separate lifts.

3.1.6 The Vessel Acceptance Process is not intended to, under any circumstances:

- Interfere with the normal safe operation of the vessel; or
- Interfere, replace, or assume the Masters', Owners', Carriers', Managers' own obligations and responsibilities; or
- Interfere replace, or substitute any function or responsibility of Public Authorities or organizations, whether national or international, and/or of Classification Societies.

3.2 Pre-Screening for Scheduling Purposes

3.2.1 Shippers wishing to transfer cargo at the Terminal shall follow the normal nomination process for movement of product through KMC operated pipelines.

3.2.2 The Shipper establishes the quality of the vessel proposed to transfer cargo at the Terminal by undertaking an industry recognized vessel vetting process.

3.2.2.1 The Shipper shall be provided access to this document in order to assist their vessel selection process.

3.2.2.2 From time to time, KMC shall review a Shipper's vessel selection and proposal process to further support the objectives of this Standard.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 7 of 14

- 3.2.3 KMC's Shipper Services group, upon receipt of a proposed nomination from a Shipper for a cargo transfer at the Terminal, shall send a [Vessel Proposal Form](#) and *Vessel Loading Cover Letter* to the Shipper. The cover letter provides guidance to the Shipper related to KMC's Barge acceptance process.
- 3.2.4 The Shipper shall complete and return the *Vessel Proposal Form* to KMC's Shipper Services group prior to the Shipper's first batch leaving the Receipt Point.
- 3.2.5 Upon receipt of the completed *Vessel Proposal Form*, KMC Shipper Services shall relay this information to KMC's Loading Master for review and investigation of the proposed Barge to ensure compliance with Section 4 of this Standard.
- 3.2.6 Upon completion of the review and investigation described in Section 3.2.5, the Loading Master shall advise KMC Operations in writing of his recommendation to accept or reject the proposed vessel.
- 3.2.7 Based on the recommendation of the Loading Master, KMC Operations will render an initial vessel acceptance or rejection decision. This decision will be communicated in writing to the Shipper by KMC's Shipper Services group. A Shipper whose proposed vessel has been deemed a Denied Barge, having failed this process, may request a further review based on additional information that may be provided to KMC. Such information must be provided no later than 24 hours after the issuance by KMC Shipper Services group of the rejection notice. If, after reviewing the additional information, the vessel remains rejected (Denied Barge), another vessel must be nominated; such nomination must be provided to KMC no later than 24 hours after issuance of the second rejection notice.

3.3 Physical Inspection

- 3.3.1 Where KMC renders a decision to accept a vessel for scheduling purposes at the conclusion of the process described in Section 3.2, KMC's Loading Master will send a *Pre-Arrival Checklist* to the vessel's Master.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 8 of 14

3.3.2 The pre-arrival checklist must be completed by the Master or his designate and returned to the Loading Master for review at least twenty four hours prior to vessel arrival at the Victoria Pilot Station.

3.3.3 Non-compliance with the pre-arrival checklist may result in delay or refusal of berthing and/or cargo transfer.

3.3.4 The Loading Master will board the vessel and conduct a physical inspection as described in Section 3.1.4 of this Standard prior to formal Acceptance of the vessel as defined in Section 1.3.1.

4.0 CRITERIA FOR ACCEPTANCE

4.1 General Requirements

4.1.1 The vessel shall have an inspection report entered in the SIRE database that is not more than 6 months old on the nominated date of loading from the Terminal.

4.1.1.1 During screening, the Terminal shall review the SIRE database for any observations on record that may pose a safety or operations risk. The vessel, owner, or operator shall be requested to explain any anomalies noted.

4.1.2 The vessel's Master shall have reviewed, and agreed in writing, to the terms and conditions specified in the *Westridge Marine Terminal Information and Regulations Booklet*.

4.2 Barge Age Requirements

4.2.1 A Barge shall be less than 15 years old on her nominated Terminal loading date. An exception to this may apply if the Barge meets the terms of paragraph 4.2.3.

4.2.2 Condition Assessment Rating requirements apply to all vessels 15 years or older (see table in section 4.2.4, below).

4.2.3 A Barge may be considered provided she remains less than 20 years old on the estimated date of becoming free of cargo loaded at the Terminal. Requirement for Condition Assessment Rating referenced in paragraph 4.2.2, above is unchanged.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 9 of 14

4.2.4 CAP Equivalency

Barges, including Articulated Tug/Barges over 15 years of age shall be Condition Assessment Program (CAP) rated with a minimum rating for its hull in accordance with the following tables:

ACP Provider	Name of CAP Equivalent Program
LR: Lloyds Register of Shipping	(Ship Assessment Scheme, SAS)
GL: Germanischer Lloyd	(Condition Assessment Survey, CAS)
DNV: Det Norske Veritas	(Condition Assessment Programme, CAP)
ABS: American Bureau of Shipping	(SafeHull Condition Assessment Survey)
BV: Bureau Veritas	(Harmonized Condition Assessment Programme, HCAP)
Others	Vessel's owner shall provide a letter of equivalency from the CAP provider

CAP description according to the various Class societies as described below and within the acceptance period are considered acceptable.

LR/DNV/ABS	GL	BV	Acceptance Period
New condition (1)	As new (5)	As new or superficial reduction only (1)	4 years from date of survey
	Negligible waste/wear (4)		
Minor defect (2)	Moderate waste/wear (3)	Minor defect (2)	3 years from date of survey

4.3 Vessel Construction Requirements

4.3.1 The vessel shall be of double hull construction.

4.3.2 A Barge's entire cargo tank area must be either provided with oil-tight center-line bulkheads or designed with center-tanks and wing-tanks.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 10 of 14

- 4.3.3 Arrangements must be in place that allow the Barge operating personnel to view the cargo deck area and manifold areas at all times while undertaking cargo transfer.
- 4.3.4 A Barge's cargo deck area must be suitably provided with a raised steel plate (scupper bar) to allow for containment of any oil on deck. The scupper bar will be a minimum height of 100 mm (4 inches)
- 4.3.5 Barges will have reasonable means to limit water collecting on deck. The Barge must be staffed at all times to facilitate the timely monitoring and proper disposal of water collecting on deck throughout the period of cargo transfer operations.

4.4 Vessel Equipment Requirements

- 4.4.1 The vessel shall be equipped (including mooring systems) in accordance with her age and size, Flag/State and Class requirements. (Refer to SOLAS, MARPOL, OCIMF, etc.). A copy of her Class Certificate shall be made available upon request.
- 4.4.1.1 All vessels over 5000 MT DWT shall carry a minimum of eight (8) mooring lines on powered winches.
- 4.4.1.2 Mooring lines may be of wire or synthetic material and construction suitable for the purpose. In case of wire or HMPE, suitable mooring tails shall also be provided.
- 4.4.2 A vessel nominated to receive cargo at the Terminal shall be fitted with a Vapour Recovery System with capacity to connect to a 406 mm (16 inch) or 254 mm (10 inch) vapour recovery line.
- 4.4.3 All vessels nominated to handle crude oil at the Terminal shall be equipped with an approved inert gas system.
- 4.4.4 The vessel must be compliant with the requirements established by PMV Harbour Operations Manual and further described in the PPA's requirements. Particular focus shall be placed on the capacity of fitted towing strong points
- 4.4.5 The towing or pushing vessel shall be fitted with an IMO approved ECDIS, which uses "official" electronic navigational charts.
- 4.4.6 Barges loading crude oil shall have individual pressure sensors with means of recording tank pressure fitted to each cargo oil tank if

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 11 of 14

calling at PMV during times of the year when ambient temperature is expected to reach or exceed 23°C.

4.5 Regulatory Compliance

- 4.5.1 The vessel shall carry certification that verifies that she is built and operated in accordance with ALL relevant local and international laws and regulations, as well as industry standards. (Refer to IMO, CSA, and any local requirements).
- 4.5.2 The vessel shall be registered under the flag of a country on the Tokyo MoU White List and meet the flag criteria for a low risk ship as listed by the Paris MoU.
- 4.5.3 The vessel shall be classed with a member of IACS and shall comply with the applicable class rules.
- 4.5.4 The vessel shall have onboard officers and ratings licensed in accordance with the relevant Flag State and latest Standards of Training and Certification Watchkeepers (STCW) regulations, or equivalent.
- 4.5.5 The vessel shall comply with the provisions of the relevant rules regarding International Transport workers Federation (ITF) compliance and carry a "Blue Card" or alternatively, a special agreement letter.
- 4.5.6 The vessel shall be entered with a P&I club that is a member of the International Group of P&I Clubs and carry the maximum oil pollution cover normally extended by the P&I club, relevant to her size. This will be verified with a Certificate of Entry.
- 4.5.7 The vessel shall, prior to her entry into Canadian waters, enter into an agreement appointing Western Canada Marine Response Corporation (WCMRC) as the designated Spill Response Agency in Canadian waters.

4.6 Technical and Operational Requirements

- 4.6.1 The vessel shall be up-to-date with all Class inspection and survey requirements for vessels of her age without any pending or overdue Conditions of Class.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 12 of 14

- 4.6.2 The vessel shall carry and implement a Ballast Water Management Manual, which is Class approved. The Loading Master shall review records.
- 4.6.3 The vessel shall be capable of operating under "closed" cargo transfer condition.
- 4.6.4 The vessel will ensure continuous monitoring of the cargo deck and manifold area during cargo transfer.
- 4.6.5 The vessel shall have in operation equipment that prevents the overboard discharge of untreated sewage.
- 4.6.6 The vessel shall secure all bilge overboard discharge valves under charge of the Chief Engineer prior to entry into the Canadian exclusive economic zone (EEZ) and those shall remain secured until the vessel has departed Canadian EEZ.
- 4.6.7 The vessel shall use fuel in main engines and auxiliary engines that is in accordance with prevalent rules and regulations of the port and region.

4.7 Crew Qualifications and Conduct Requirements

- 4.7.1 Officers and crew serving in a position that require them to communicate with others regarding navigation, loading/discharging and bunker operations, shall have verbal proficiency in English sufficient to carry out these duties.
- 4.7.2 All vessel officers shall have operational experience on similar vessels.
- 4.7.2.1 On Barges, officers shall possess combined time in rank on similar vessels to meet the following criteria:
- Senior Deck officers (Master and Chief Officer) – 36 months;
 - Senior Engine officers (Chief Engineer and his immediate subordinate) – 36 months.
- 4.7.3 The vessel shall have implemented an onboard Drug and Alcohol Policy that meets OCIMF recommendations.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 13 of 14

- 4.7.4 The vessel shall have implemented onboard a Ship Security Plan appropriate to her Flag.
- 4.7.5 Once within Canadian EEZ, the Master shall be under instructions from Owners to immediately notify Authorities and the Terminal in case of any incident affecting safety or the environment as well as loss of propulsion.
- 4.7.5.1 WCMRC shall be immediately notified by the Master in case of any oil spill, however minor.
- 4.7.6 The Master shall be familiar with means to promptly obtain (in case of need) computerized, shore-based damage stability and residual structural strength information and will confirm that she/he has the authority to do so directly without awaiting additional approval from the Owner.
- 4.7.7 In case of an emergency that may require salvage, the Master shall have the authority to enter in a Lloyd's Open Form Agreement with SCOPIC clause promptly with a salvor of his choice without having to seek additional approval from the Owner.

4.8 Local Operating Requirements

- 4.8.1 All vessels shall conduct operations within Canada, specifically PMV, in accordance with any additional guidance provided by the Terminal, and always respectful of the rights of the residents in surrounding neighbourhoods to not be unnecessarily disturbed by noise, odours and health or other concerns from vessel operations. Such additional instructions may be verbal or written in nature and shall be issued by the Loading Master.
- 4.8.2 Any vessel destined to/from the Terminal shall respect and remain outside the voluntary Tanker Exclusion Zone off the West Coast of Vancouver Island, both while laden or in ballast.
- 4.8.3 The vessel shall always navigate within the designated marine traffic corridors and comply with relevant rules of the Pacific Pilotage Authority (PPA) and Port Metro Vancouver, as amended from time to time. The appointed ship's agent must confirm that those have been shared with the vessel's Master.

3.2 BARGE ACCEPTANCE STANDARD

Revision 2.1

November 13, 2013

Page 14 of 14

4.8.4 A vessel planning to depart Canada via the Juan de Fuca Straits shall agree that, upon exiting the Juan de Fuca Straits, it will steer a course no more northerly than due West (270°) till the vessel is outside Canadian EEZ (200 NM from coast of Canada).

4.8.5 The Terminal may monitor the vessel's position from the time her nomination to load is accepted until she leaves the Canadian EEZ.

5.0 REFERENCES

5.1 *The Paris Memorandum of Understanding on port State Control*

5.2 Westridge Terminal Marine Operations

- *A.2 Vessel Proposal Form – Crude Oil ATB, Barge*
- *A.4 Pre-Arrival Checklist*
- *A.8 Vessel Loading Cover Letter*

5.3 *Westridge Terminal Information and Regulations Booklet*