



**BRITISH COLUMBIA
COAST PILOTS**

**SUBMISSION TO
TANKER SAFETY EXPERT PANEL**

June 18, 2013

Executive Summary

Licensed marine pilots are required for all deep sea vessels, including tankers, on the west coast of Canada. These services are supplied by the British Columbia Coast Pilots Ltd, a private company consisting of approximately 100 pilots, through a contract for services with the Pacific Pilotage Authority. Pilots have intimate knowledge of the coastline and ship handling which is demonstrated by the high safety record of incident free assignments. The recommendations contained in this submission will further enhance the safety of this world class piloting system.

Recommendation #1 – Move Northern Pilot Boarding Station for Energy Ships

BCCP recommends moving the pilot boarding station for energy ships nine miles west of the current location at Triple Island to distance these vessels from other traffic in the area.

Recommendation #2 – Create Robust Standards for Tug Escorts

Transport Canada should be encouraged to develop standards for tug escorts by defining the minimum recovery requirements for vessels and capability of escort tugs.

Recommendation #3 – Require Minimum of Two Pilots on Energy Ships

Two pilots should be required for all energy ships where the length plus the beam is equal to or greater than 265m.

Recommendation #4 – Provide Navigational Aids

The Canadian Coast Guard should be requested to clarify the respective roles of CCG, ports, and industry with respect to the installation and maintenance of navigational aids. CCG should conduct an additional review of navigational aids along the proposed tanker route from Triple Island to Kitimat, including Caamano Sound. CCG should also pursue the installation of SMART buoys off of the west coast to provide real time information over AIS. In addition, CCG should oversee the installation of private marine aids to ensure the data is transmitted correctly over AIS.

Recommendation #5 – Provide Electronic Navigational Charts in highest standard format

The Canadian Hydrographic Services (CHS) should be encouraged to provide vector charts in the highest available format and density.

Recommendation #6 – Provide emergency towing vessel

A rescue tug should be stationed on the northern coast to respond to vessels in distress.

Regulatory framework

In 1972 the federal Pilotage Act was created which established four Pilotage Authorities in Canada who are responsible “to establish, operate, maintain and administer in the interests of safety an efficient pilotage service within the region set out in respect of the Authority.” In the Pacific region, the Pacific Pilotage Authority was created and Regulations developed which require a licenced marine pilot or pilotage certificate holder on all vessels over 350 GT. Government vessels, ferries, US government ships under 10,000GT, and pleasure craft under 500 GT are exempt from pilotage.

Pilotage services are provided by two pilot groups – the Fraser River Pilots and the BC Coast Pilots. The Fraser River Pilots are employees of the Pilotage Authority and pilot vessels exclusively in the Fraser River. The BC Coast Pilots Ltd is a private Company consisting of approx. 100 pilots who service the remainder of the west coast though a service agreement with the Pilotage Authority. Pilots are based in Vancouver, Victoria, Nanaimo and Prince Rupert to respond to requests for pilotage. The current model of coast-wide dispatching has served industry well by providing a broad pool of highly trained pilots that can respond quickly and effectively to shipping demands.

Volume/Safety

The success of the pilotage system is demonstrated by its safety record. In 2012, there were 12,946 piloting assignments completed on the coast of which 676 or 5% were petroleum product tankers. The safety record for the year was 99.946% incident free assignments.

Pilots have moved petroleum tankers on the BC coast for many years. In all that time, there is no record of any incident involving a tanker where product was discharged into the water. Nevertheless, practices are continuously reviewed to ensure the operating procedures reflect best practices and the appropriate safety margins are in place.

Recent developments

A recent example is the work done to rewrite the Second Narrows Marine Restricted Area (MRA). A request was made by Kinder Morgan to examine the option of increasing the size and draft of tankers transiting though Second Narrows. This began a five year process which included simulations, live trials, new tug escort procedures, pilot training, new navigational aids, and new electronic navigation tools for the pilots called Portable Piloting Units (PPUs). The end result was operational procedures which improved the level of safety not only for tankers, but for all vessels transiting the waterway.

The BCCP is also working with industry to review the tug escort requirements for tankers transiting through Boundary Pass and Haro Straits. A close working relationship is maintained with the Puget Sound Pilots from Washington State to develop parallel procedures for tug escorts.

New Terminals

BCCP was contacted by a number of different organizations during the last few years regarding the construction of new terminals on the coast for both crude oil and LNG. BCCP has participated in simulations to determine the routing, tug escort requirements, berth location and orientation for some of these proposals. The pilots play a key in establishing the safe operating parameters for the vessels such as maximum wind and current conditions, number of tugs, number of pilots onboard the vessel, required navigational aids, and charting requirements

Recommendations

Government has a critical role to play in ensuring that the appropriate regulations are in place to ensure the safe transit of tankers on the west coast. In addition, government agencies such as Transport Canada, Coast Guard, and the Canadian Hydrographic Services must fulfill their obligations to provide the required infrastructure to support the movement of these ships.

Recommendation #1 – Move Northern Pilot Boarding Station for Energy Ships

The northernmost pilot boarding station services most shipping for Prince Rupert and Kitimat and is located at Triple Island, 21 miles outside of Prince Rupert Harbour. The boarding station is used by deep sea vessels, towboats, and fishing vessels which often results in traffic congestion. Having energy ships enter this high traffic area can present an unnecessary risk to the vessel. BCCP recommends moving the pilot boarding station for energy ships nine miles west of the current location. This will keep the vessels a minimum of five miles from any navigational hazards and out of the high traffic area. Helicopters will be required to transfer the pilots to and from the vessels.

Recommendation #2 – Create Robust Standards for Tug Escorts

The number and size of tugs required for ship berthing and escort are currently determined through simulations sponsored by the port, terminals, or proponents and conducted by BCCP. There are currently no regulations in place which define the minimum recovery standards for vessels or capabilities of escort tugs. As the regulatory authority, Transport Canada should be requested to create robust tug standards which can be applied to current and future marine projects.

Recommendation #3 – Require Minimum of Two Pilots on Energy Ships

Two pilots are required for any assignment over 105 miles or eight hours. Two pilots are also required for all tankers which transit through Second Narrows in Vancouver Harbour if the length of the vessel plus its beam equals 265m. In addition, two pilots are required for tankers over 40,000 DWT transiting through Haro Straits and Boundary Pass. These safety parameters were established after lengthy risk assessments and dialogue with stakeholders. Similar safety parameters should be applied to the remainder of the west coast. BCCP recommends that all energy ships whose length plus beam equals 265m or greater be required to take two pilots, irrespective of the geographical area.

Recommendation #4 – Provide Navigational Aids

BCCP has worked with the Canadian Coast Guard (CCG) to identify appropriate navigational aids for new projects. BCCP also participates with CCG to review existing aids. Unfortunately, CCG has stated on several occasions that they lack the resources to upgrade or install the identified aids. BCCP should not pilot vessels through a waterway once a risk assessment has determined the new or improved aids are required. In some cases, a local Port has provided the funding and CCG the technical expertise to install an aid. CCG should be encouraged to develop a policy to clearly identify the roles of government, industry, and ports in the installation/ maintenance of navigational aids.

A review of navigational aids along the proposed tanker route from Triple Island to Kitimat, including Caamano Sound, was completed by CCG prior to the TERMPOL study. It identified a number of new aids and upgrades to existing aids to bring the aids in the area up to existing standards. If the proposed tanker route is to become a reality, BCCP recommends an additional review of the aids to ensure they meet present day standards.

Weather buoys on the west coast provide metrological data (wave height, wind speed and direction) which can assist a vessel in passage planning. Additional information can be provided by enhanced weather buoys (SMART buoys) such current speed, temperature, humidity and visibility and the information broadcast over AIS. BCCP recommends the installation of SMART buoys in Browning Entrance, Caamano Sound, and Triple Island to provide additional metrological data to inbound vessels.

There are instances where a port or terminal installs a navigational aid and the data is unable to be properly transmitted over AIS. BCCP recommends that CCG assume an oversight role in the installation of private aids to ensure they comply with international standards and are capable of accurately transmitting data over AIS.

Recommendation #5 – Provide Electronic Navigational Charts in highest standard format

Pilots rely heavily on Canadian Hydrographic Services (CHS) to provide accurate and detailed hydrographic charts for shipboard use. New standards are being implemented at the International Maritime Organization and International Hydrographic Organization regarding high density vector charts. CHS should be requested to aggressively pursue providing charts at the highest accepted standards, particularly for the intended energy ship routes, and ensure that CHS electronic charts keep pace with international standards.

Recommendation #6 – Provide emergency towing vessel

BCCP supports the establishment of an emergency towing vessel on the northern coast as an additional risk mitigation measure. The towing vessel needs to provide the necessary forces and equipment to safely tow a disabled vessel to safety in all conditions. Although escort tugs are able to assist a vessel during transit in confined waters, they may lack the ability to provide open water towing in all conditions.