

November 27, 2013

Mr. Gord Macatee  
British Columbia Ferries Commissioner  
BC Ferry Commission  
RPO Hillside P.O. Box 35119  
Victoria, BC V8T 5G2

Intermediate Class Vessel Project – Technical Specifications

Dear Mr. Macatee:

On May 22, 2013, British Columbia Ferry Services Inc. (“BCFS”) filed an application pursuant to section 55(2) of the *Coastal Ferry Act* seeking the approval of the British Columbia Ferries Commissioner (the “Commissioner”) of a proposed major capital expenditure for the design and build of three new intermediate class vessels to replace vessels currently operating on route 9 (Tsawwassen-Southern Gulf Islands) and route 17 (Powell River-Comox/Little River) (the “Application”).

By Order 13-01 dated July 19, 2013 the British Columbia Ferry Commission approved the proposed major capital expenditure for the acquisition of three new intermediate class vessels, as generally described in the Application, subject to certain conditions, including the following:

- 1(b) Prior to issuing a Request For Proposals for the design and build of the proposed new vessels, BC Ferries must satisfy the commissioner that:*
- (i) a fuel efficiency target has been included in the technical specifications for the proposed new vessels and reflected in the procurement documents; and*
  - (ii) the concerns of ferry users regarding the open deck design of the new vessels have been taken into account when finalizing the technical specifications for the new vessels and such design will have no significant impact on service levels on the routes where these vessels will be deployed.*

BCFS has recently completed the Request for Pre-Qualification stage of the procurement process for the new intermediate class vessels and intends to issue a Request for Proposals (“RFP”) to qualified shipyards shortly. The technical specifications for the new vessels to be included in the RFP documentation address the two requirements of the Commissioner as set out above.

With respect to requirement 1(b)(i), BCFS will be using a life cycle cost approach in its financial analysis of the proposals received in response to the RFP, and fuel will be a significant factor. Based on the Company’s experience with its current vessels, the business case for the intermediate class vessels, as reflected in the Application, included an overall projected fuel efficiency target of approximately 15 percent, which was based on diesel-fuelled replacement vessels.

However, as we have advised in our correspondence of November 25, 2013, the Company now intends to seek proposals for dual-fuelled (diesel and liquefied natural gas) vessels. As dual-fuelled engines are less fuel efficient than single-fuelled diesel engines, the projected fuel efficiency target, as included in the RFP technical specifications, has been adjusted to 6.5 percent. Please note that, while dual-fuelled engines are less efficient, the change in efficiency is more than offset by anticipated savings in the cost of fuel.

With respect to requirement 1(b)(ii), we understand the principal concern of ferry users with respect to the open deck design of the new vessels relates to potential sea spray. The vessel design specifications in the RFP documentation includes the requirement for sufficiently sized and designed bulwarks to ensure that vehicle deck(s) are free from sea spray 95 percent of the time in normal operating conditions up to Beaufort Sea State 5, which specifies a wave height of 2 meters. In addition to these design specifications, BCFS is committed to issuing service notices to the public and advising them when the potential may exist for sea spray (i.e. the remaining 5 percent of the time).

The excerpts addressing these matters from the Statement of Operational Requirements, which forms part of the RFP documentation, are attached as Appendix 1 and 2. In addition, we will also add the following clause to the RFP document:

- 2.11 BC Ferries has had a number of requirements imposed on the Program by the BC Ferries Commissioner pertaining to fuel consumption, service reliability, and passenger comfort (referencing seakeeping performance and spray ingress), as per BCFC Order 13-01 ([www.bcferrycommission.com](http://www.bcferrycommission.com)). It will be incumbent on the Proponent to develop a ship design which will meet the prescribed "spray on deck" performance target, and work with BC Ferries during the contract negotiation phase to define the methodology for demonstrating compliance with these requirements, for inclusion in the final contract. This may involve additional simulation work not otherwise defined herein, or empirical analysis using data from like vessels.*

We trust the foregoing is satisfactory. Should you have any questions or require further information regarding this matter, please do not hesitate to contact me.

Sincerely,



Robert P. Clarke, CGA  
Executive Vice President & Chief Financial Officer

Attach.

Appendix 1

**STANDARD  
INTERMEDIATE CLASS FERRY  
(ICF)**

**125/145 AEQ Variant  
Ro/Ro Passenger Vessel**

**Statement of Operational  
Requirements**

Rev. 1 (RFP)

November 2013

SOR-16      Endurance and Fuel Efficiency

The Vessel shall be capable of operating for seven (7) days standard duty cycle on LNG without refuelling; there shall be sufficient diesel carried for four (4) days standard duty cycle when running the DF engines on diesel only. The design deadweight shall be based on this operating cycle, exclusive of any reserve.

The systems are to be designed to the following utilization profile:

**16-1 Utilization Profile**

<ul style="list-style-type: none"><li>• 5500 hours annual operation</li></ul>
<ul style="list-style-type: none"><li>• 16 hour operational day consisting of:<ul style="list-style-type: none"><li>35% in dock/loading/unloading/stand-by</li><li>10% docking manoeuvring (harbour mode)</li><li>30% transit mode – 13.5 knots</li><li>25% transit mode – 15.5 knots</li><li>+ 1 hour start up</li></ul></li></ul>

Freshwater capacity shall accommodate a five (5) day cycle. Sewage holding tank capacity will be sufficient for a two day off loading cycle with peak passenger loading as defined in **SOR-90**.

Storing capacity for catering and retail stock shall be designed for weekly replenishment.

The Vessel shall be designed for efficient operation for the utilization profile in Table 16-1, on the Routes specified in **SOR-60**. BCF is seeking to reduce the fuel consumption from about 3.4 million litres of diesel annually on each route, which equates to 5.4 million equivalent litres of LNG. The Shipyard shall demonstrate the expected fuel consumption and associated savings with its proposed design, with a target reduction of at least 6.5%.

Appendix 2

**STANDARD  
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SOR-21 Vehicle Deck Layout

The Vessel will be configured for unobstructed traffic flow over the vehicle decks, with bow and stern loading. An open deck configuration with high bulwarks and enclosed ends provided by weathertight visors is required. The bulwarks must be of sufficient height to reasonably ensure that vehicle deck(s) are free from sea spray 95 % of the time in normal operating conditions up to Beaufort Sea State 5.