

**SUBMISSION TO THE MINISTRY OF TRANSPORT ON THE POTENTIAL ACCESSION TO  
MARPOL ANNEX VI: PREVENTION OF AIR POLLUTION FROM SHIPS**

**1. INTRODUCTION**

- 1.1 StraitNZ Bluebridge Limited ("**Bluebridge**") welcomes the opportunity provided by the Ministry of Transport ("**Ministry**") to make a submission on the potential accession by New Zealand to the International Maritime Organization ("**IMO**") Treaty MARPOL Annex VI ("**Annex VI**"). Annex VI is an optional annex to MARPOL that regulates air contaminants from ships.
- 1.2 Bluebridge was established in 1992 and provides a Cook Strait interisland shipping service, covering both the commercial freight and passenger markets. Bluebridge is owned by, and integrated with, one of New Zealand's largest national transport and logistics groups – StraitNZ Limited ("**StraitNZ**"). Bluebridge is an important part of the critical freight and passenger transport links between the North and South Islands.
- 1.3 StraitNZ's related road transport businesses include StraitNZ Linehaul (previously Freightlines), one of New Zealand's largest linehaul operators, and StraitNZ Freight Forwarding (previously Streamline), a national freight-forwarding network. StraitNZ currently employs 500 people, including contracted owner-drivers of its road transport businesses.
- 1.4 Bluebridge operates two vessels on its Cook Strait interisland service – the Straitsman and the Strait Feronia. Details of these vessels are provided as **Appendix One**.
- 1.5 Bluebridge currently accounts for approximately 55% of the Cook Strait non-rail freight market and 30% of the passenger market. Bluebridge's customers view its services as strategically important, providing capacity, competition and resilience in the Cook Strait markets.
- 1.6 Overall, Bluebridge is supportive of New Zealand's proposed accession to Annex VI. In particular, it acknowledges the important role Annex VI will play in reducing the impact on human health and environments in port communities from maritime pollution, while also enabling New Zealand to meet its targets related to climate change and ozone layer depletion.
- 1.7 In addition, Bluebridge recognises the significance of the MARPOL Treaty from an international reputational standpoint, and the regulatory efficiencies that result from cohesion between New Zealand domestic legislation and international maritime rules and regulations.
- 1.8 Notwithstanding that, Bluebridge has concerns regarding the practicalities of implementing Annex VI. In short, the options available to Bluebridge to comply with Annex VI are limited

and come with significant costs. This will have flow-on effects for Bluebridge's commercial freight and passenger customers and, in respect of commercial freight, flow-on effects for the end consumers of those services. These concerns are addressed in more detail below.

- 1.9 Moving forward, Bluebridge wishes to engage with the Ministry to collaboratively develop tools to mitigate the significant costs that Bluebridge will incur following the implementation of Annex VI. We have identified three potential mitigation options in section 3 below. Bluebridge looks forward to discussing these further with the Ministry.

## 2. SUBMISSION

### Unavailability of low sulphur marine fuel

- 2.1 Under Annex VI, all ships of Party States will have to comply with a lower sulphur emission limit of 0.5% by 1 January 2020.
- 2.2 Bluebridge's two vessels (the Straitsman and Strait Feronia) use 80CsT intermediate fuel oil supplied by Marsden Point ("**Current Sulphur Fuel**"). This fuel has a sulphur content of approximately 2.7%, and complies with the 3.5% sulphur emission limit currently set by Annex VI.
- 2.3 The Marsden Point refinery does not, at present, produce fuel that will satisfy the lower sulphur emission limit ("**Low-Sulphur Fuel**") under Annex VI. Bluebridge has not had any confirmation from the refinery as to what kind of fuels it will supply in the future, including whether it will produce the Low-Sulphur Fuel required for compliance with Annex VI.
- 2.4 Bluebridge is also concerned that the Cabinet Paper, seeking approval for the Ministry to consult on Annex VI, sets out that the impact on Marsden Point is currently unknown and that consultation with the refinery is required to understand this. Given the refinery is the only facility capable of producing Low-Sulphur Fuel in New Zealand, it is critical it is engaged urgently and parties' dependent on fuels from the refinery (such as Bluebridge) are informed of any such discussions, so that we can better plan for the implementation of Annex VI.
- 2.5 In any event, the production of Low-Sulphur Fuel is ultimately a commercial decision for the refinery and there is no guarantee the refinery will decide to make the required investment. Bluebridge understands significant capital expenditure will be needed before the refinery can manufacture Low-Sulphur Fuel. Moreover, there could be a significant "lag time", in the order of 4-5 years after any decision to invest, before any Low-Sulphur Fuel comes to market.



2.6 The result is that, if New Zealand's accedes to Annex VI, Bluebridge will have to rely on the importation of Low-Sulphur Fuel for a significant period before that fuel may become available locally. Globally there are also capacity constraints facing the production of Low-Sulphur Fuel, at a time where demand is significantly increasing.

2.7 Ultimately, this means any imported Low-Sulphur Fuel will be significantly more expensive for Bluebridge to purchase than the Current Sulphur Fuel. We discuss this issue further below

**Capital expenditure – installation of "scrubbers" on the Straitsman and Strait Feronia**

2.8 It is possible for Bluebridge to achieve compliance with Annex VI and continue to operate using the Current Sulphur Fuel through the installation of scrubbers on its existing vessels.

2.9 Scrubbers are a gas exhaust mechanism that operate by washing the exhaust gas with sea water. This results in the emission of compliant gases, but either drains the sulphur to sea or requires the disposal of sulphur onshore.

2.10 In addition to the environmental sensitivities regarding scrubbers (eg they prevent discharges to air by instead discharging contaminants to the sea), retrofitting scrubbers to vessels is impractical. Scrubbers are relatively large pieces of kit and there are complexities in trying to integrate them into the already functioning machinery of the ship.

2.11 Bluebridge estimates that the one-time cost for installation of scrubbers for each of its two vessels is in the order of \$10 million. In addition to the costs of the scrubbers themselves, this figure takes into account the conversion costs required to enable the scrubbers to be installed and lost revenue by having the vessel out of action for the period of installation. Ongoing costs of scrubbers are estimated to be in the order of \$1.3 million per vessel.

2.12 The retrofitting of scrubbers to Bluebridge's existing fleet is therefore cost prohibitive. It is not a commercially feasible option for achieving compliance with Annex VI.

**Use of different fuels**

2.13 There are some fuels available to Bluebridge that could be used in the Straitsman and Strait Feronia that meet the requirements of Annex VI, being: diesel; methanol; and LNG.

2.14 Bluebridge's vessels are designed to run on Current Sulphur Fuel. To run its vessels on any of the alternate fuels will require retrofitting of existing systems and / or the installation of new kit. As with the installation of scrubbers, if the ships are reconfigured to utilise diesel fuel, any such works will have one-off costs in the order of \$1 million, plus significant ongoing maintenance costs. . To reconfigure to utilise methanol, costs would increase to \$10 million per ship, dependent upon the age of the vessel and availability of parts.

- 2.15 Each of the potential alternate fuels will also be significantly more expensive than the Current Sulphur Fuel. This is because:
- (a) Diesel is manufactured by the refinery; however, the refinery's output is not enough to meet current domestic demand from road transport and other users. New Zealand is therefore already a net importer of diesel and further importation will be required where the coastal shipping fleet is converted to diesel.
  - (b) Methanol is currently available, but it is far less efficient than diesel. Approximately twice the amount of methanol is required (compared to diesel) to achieve the same power output.
  - (c) LNG is not currently able to be sourced in New Zealand and there is effectively a ban on further offshore exploration for potential deposits that could be brought to market. LNG would therefore need to be imported from Australia or elsewhere.
- 2.16 It is estimated, based on current pricing, that compared to the Current Sulphur Fuel, Low-Sulphur Fuel is approximately 21% more expensive per m<sup>3</sup> and marine diesel is approximately 11% more expensive per m<sup>3</sup> (with more marine diesel required than Current Sulphur Fuel to achieve the same output).
- 2.17 Leaving aside the significant increases in fuel costs where an alternative fuel may become available, the primary issue for Bluebridge remains the requirement to retrofit its vessels to be able to run on an alternate fuel. As set out above, like with the option to retrofit its vessels with scrubbers, the costs of any retrofit will be significant and ultimately are not commercially feasible. As such, while it would be technically possible for Bluebridge to comply with Annex VI using an alternate fuel, the only realistic option to achieve compliance is to use Low-Sulphur Fuel.

#### **Effects of Annex VI on customers / clients of coastal shipping**

- 2.18 We have explained above the significant costs (in the millions of dollars) that Bluebridge will incur as a result of the adoption of Annex VI. Bluebridge will have no option but to pass these extra costs on to its customers, to ensure its operations continue to be commercially viable.
- 2.19 Many passengers rely on Bluebridge services to provide an affordable option for family travel between the North and South Islands, with annual total number of passengers of approximately 1.1 million. Bluebridge essentially operates a 24-hour-a-day, 7-day-a-week operation. Its vessels undertake over 2,600 sailings per year. We consider it crucial to New Zealand's national identity and transportation links to keep these linkages between the North



and South Islands open and accessible to everyday New Zealanders. Increasing the costs of these services can only make those services less accessible.

- 2.20 The freight industry also relies on a frequent and dependable Cook Strait service. An economic study undertaken by Deloitte in 2014 (the National Freight Demand Study), showed that forecast demand for freight services is expected to increase by 58% by 2042. Forecast growth in demand for freight services across the Cook Strait is expected to be even greater than the national and modal average as indicated by this study, due to the concentration of freight flows between the North and South Islands through the Cook Strait channel.
- 2.21 In the same way Bluebridge will need to pass on its increased costs to its customers, additional costs flowing from Annex VI will in turn be passed on by the freight industry to their end customers. In other words, the effects of acceding to Annex VI will be far-reaching and will go beyond just Bluebridge and the coastal shipping industry. Consumers of goods that require transport between the North and South Islands will ultimately be required to pay more for those goods, so that commercial freight operations can also remain commercially viable.

#### **International approach to Annex VI**

- 2.22 Bluebridge recognises that there is also global uncertainty regarding the changes required from shipping operators by 1 January 2020.
- 2.23 In particular, Australia has ratified Annex VI, but is also now undergoing consultation and direct stakeholder engagement on the options available to actually comply with the lower 0.5% sulphur emissions limit by 1 January 2020.<sup>1</sup> It is critical that the Government remains cognisant of the approach that is ultimately taken in Australia to achieve compliance with Annex VI. This is because many larger vessels operating in New Zealand (including Bluebridge's Straitsman and Strait Feronia) need to travel to Australia from time to time to utilise dry dock facilities for maintenance and upgrading purposes.
- 2.24 We understand that the IMO will provide guidelines for consistent implementation of Annex VI, which include a standard format for reporting the non-availability of compliant fuel.<sup>2</sup> While this will no doubt be helpful, assistance from the New Zealand Government is required in relation to compliance with Annex VI in the New Zealand context. Two potential options in this regard are briefly set out below.

<sup>1</sup> Australian Maritime Safety Authority <https://www.amsa.gov.au/marine-environment/air-pollution/australian-consultation-low-sulphur-fuel>. We understand that the latest consultation occurred in January 2019, however the details of this are not yet available.

<sup>2</sup> International Chamber of Shipping "Provisional Guidance to Shipping Companies and Crews on Preparing for Compliance with the 2020 'Global Sulphur Cap' for Ship's Fuel Oil in Accordance with MARPOL Annex VI" (September 2018) < [www.ics-shipping.org/docs/default-source/resources/ics-guidance-on-implementation-of-2020-global-sulphur-cap---september-2018.pdf?sfvrsn=18](http://www.ics-shipping.org/docs/default-source/resources/ics-guidance-on-implementation-of-2020-global-sulphur-cap---september-2018.pdf?sfvrsn=18) > at page 25.

### 3. MITIGATION OPTIONS

- 3.1 Bluebridge wishes to emphasise again that it understands the drivers behind the proposal to accede to Annex VI, both politically and environmentally.
- 3.2 However, as set out above, at this stage the only economically feasible option available to Bluebridge to continue its operations whilst achieving compliance with Annex VI is to utilise Low-Sulphur Fuel, which is not currently manufactured in New Zealand. As such, some mitigation is required of the significant costs that Bluebridge (and ultimately its customers) will incur as a result of importing Low-Sulphur Fuel, at a time where there are capacity constraints internationally on the manufacture of this fuel. The following options are potentially available to the Ministry:
- (a) Subsidising the re-tooling of the Marsden Point refinery to enable it to manufacture Low-Sulphur Fuel for the domestic market.
  - (b) Importation by the Government of a Low-Sulphur Fuel, which would enable the Government to sell that fuel for use in the domestic market at an appropriately subsidised rate.
  - (c) Implementation of a fuel subsidy to enable the importation of a Low-Sulphur Fuel by Bluebridge and other operators.
- 3.3 The subsidy options outlined in (b) and (c) above could be appropriately time-limited and / or have a sunset clause where the refinery can manufacture sufficient quantities of Low-Sulphur Fuel for the domestic market.
- 3.4 Where option (a) above is implemented above, the subsidy options in (b) and (c) will also be required until such time as the refinery can manufacture sufficient quantities of Low-Sulphur Fuel. This is to reduce the adverse effects of the "lag time" (described above) between making the required investment in upgrading the refinery and Low-Sulphur Fuel coming to market.
- 3.5 Bluebridge understands Australia and other countries will also be evaluating similar subsidy options to enable operators in their markets to achieve compliance with Annex VI, whilst at the same time maintaining the commercial viability of their operations.

**4. NEXT STEPS**

- 4.1 Bluebridge welcomes the opportunity to engage constructively with the Ministry on the accession of Annex VI. Bluebridge will be considerably adversely affected by the accession to Annex VI and therefore would value the opportunity to discuss the mitigation options outlined above, with a view to achieving a positive and workable outcome for all concerned.

**STRAITNZ BLUEBRIDGE LIMITED:**

**Signature:**



**Louise Struthers**

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**Date:**

8 February 2019

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## Appendix One

### MV Straitsman

The Straitsman is the most modern vessel servicing the Cook Strait. It was built in the Netherlands in 2005. Bluebridge purchased the Straitsman during 2010 and it began operating on the Cook Strait in December of that year.

The Straitsman is a purpose built Ro-Pax vessel with a freight and vehicle capacity of 1,248 lane metres and a passenger carrying capacity of 400. The Straitsman is a very stable and reliable vessel, suited to the sometimes challenging Cook Strait environment.



It is equipped with high-tech navigation aids, stabilisers, two powerful bow thrusters and in-line high lift flap rudders to ensure effective manoeuvrability. Accompanying these high-tech features are eco-friendly features which enhance fuel efficiency and use waste heat for heating hot water and the passenger areas.

The vessel is fitted out with a contemporary interior and provides reclining seating areas, family area, viewing lounge, extensive decking and a café. There are also 50 cabins on the vessel ranging from single room to family rooms, which can comfortably accommodate up to four adults. Each cabin has air-conditioning, a power point, chair and table, reading lights and a private ensuite.

There is a dedicated area for truck drivers, which includes a comfortable seating and entertainment area. Truck drivers can order three course meals from the café.

### MV Straitsman

|  |   |
|--|---|
| Country Flag:                          | New Zealand                               |
| Freight Capacity:                      | 1,248 lane meters (32 Trucks or 300 cars) |
| Passenger capacity:                    | 400                                       |
| Main Engine:                           | 2 MAK 9M32 (Total 8,640 KW)               |
| Service speed:                         | 18.8 knots                                |
| Length:                                | 124.9m                                    |
| Gross tonnage:                         | 13,906                                    |
| Draft:                                 | 5.3m                                      |
| Beam Overall:                          | 23.4m                                     |
| Last dry dock:                         | September 2016                            |
| Next dry dock:                         | August 2019                               |
| Period out of service during dry dock: | 3 weeks                                   |



## MV Strait Feronia

Based on lane metre capacity the Strait Feronia is the largest vessel on the Cook Strait. Built in 1997, the vessel was purchased in 2015 and underwent a full refurbishment of its passenger areas before arriving in New Zealand and starting operations in June that year.

Strait Feronia is a purpose built Ro-Pax vessel. It has a combined freight and vehicle capacity of 2,150 lane metres and a passenger carrying capacity of 400. Strait Feronia is capable of handling every type of freight from livestock to breakbulk or over-dimensional loads.



The vessel has a standard operating service speed of 17.5 knots. It is equipped with two Wartsila 8L46B engines and other marine features include bow thrusters along with Fincantieri stabilizer fins. During its short period of service to date, the Strait Feronia has established itself as a very suitable and reliable vessel for the Cook Strait environment.

The passenger refurbishments that were undertaken prior to entering service included a movie lounge, quiet lounge, family room, working stations, and the café and bar area. The Strait Feronia has 72 cabins including single, twin, double, family cabins sleeping up to five people. All cabins have air-conditioning, a power point, reading lights and a private ensuite.

## MV Strait Feronia

|  |   |
|--|---|
| Country Flag:                          | New Zealand                               |
| Freight Capacity:                      | 2,150 lane meters (65 Trucks or 600 cars) |
| Passenger capacity:                    | 400                                       |
| Main Engine:                           | 2 Wartsila 8L46B (total 15,600 kW)        |
| Service speed:                         | 17.5 knots                                |
| Length:                                | 186m                                      |
| Gross tonnage:                         | 21,856                                    |
| Draft:                                 | 6.4m                                      |
| Beam Overall:                          | 25.6m                                     |
| Last dry dock:                         | July 2017                                 |
| Next dry dock:                         | July 2020                                 |
| Period out of service during dry dock: | 3 weeks                                   |