

## **STATEMENT OF WORK**

### **REPLACEMENT OF SUBMERSIBLE FIRE AND BILGE PUMP** **CCGS LOUIS S. ST. LAURENT**

#### **1. Background**

The Canadian Coast Guard vessel Louis S St Laurent is Canada's heaviest ice breaker displacing 14,504 tonnes. The vessel operates in the Gulf of St. Lawrence in the Winter months and in Canada's high Arctic in the summer and fall. The vessel is currently fitted with Hamworthy two speed Submersible pump that is connected to the fire main and the bilge system. The current pump is obsolete and in need of replacement.

#### **2. Objective**

The contractor shall provide a proposal for a replacement submersible pump to replace the existing Hamworthy Pump currently fitted in the After Propulsion motor room on the vessel.

#### **3. Scope of Work**

The contractor shall provide a proposal for the supply of a dual speed submersible pump for the vessel. The contractor shall provide the DFO/CCG with details and specifications of the replacement pump to be evaluated. These must meet as a minimum the specifications of the existing pump, Details attached. The submersible pump and motor shall have Approvals for Lloyd's register.

#### **4. Deliverables**

The contractor shall provide a DFO/CCG with the technical specification of the pump to be evaluated for installation on the CCGS Louis S St Laurent.

## **Technical requirements for the Submersible Pump**

The contractor shall supply a pump that will meet or exceed the specifications listed below.

- Existing Submersible pump:

Equipment Designation: Submersible Bilge and Fire Pump

Electric Motor Data:

Manufacturer: Laurence Scott

Model No: 378844

Serial No: NAWH56BV

Horsepower: 35 /17.5

RPM: 1150 / 1750

Volts: 440 AC 60 Hz 3 Ø

Amps: 22 / 45

Pump Data:

Manufacturer: Hamworthy

Model No: V2C4 P

Serial No: 29493-1

Suction Size: 5"

Discharge Size: 4"

Capacity 100/50 LT/Hr at a total head of 70/231 feet including 20" HG suction

- The pump and motor assembly shall be capable of being operated when submerged in sea water to a minimum depth of 30 feet.
- The pump will be required to pump sea water. Pump shall be manufactured of corrosion resistant material, such as naval brass. The pump shall be fitted with replaceable wear components. These wear rings and bushing shall be corrosion resistant.
- The pump shaft shall be fitted with a mechanical seal to prevent shaft leakage. ,
- Pump shall be a dual speed
- Pump shall be self-priming
- Pump shall be approved by Lloyds Register for marine use
- Pump shall fit in the existing location that the pump is now fitted; pump dimensions will be checked against the original during evaluation.
- Electric Motor shall be capable of being field tested for watertight Integrity.