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Item No.13.1.2
Audit & Finance Standing Committee
January 15, 2024

TO: Chair and Members of Audit & Finance Standing Committee
FROM: Cathie O'Toole, Chief Administrative Officer
DATE: December 17, 2024
SUBJECT: Halifax Transit Ferry Craig Blake – Urgent Repair VOITH Propulsion Unit

ORIGIN

The Halifax Ferry Craig Blake (Craig Blake) requires urgent dry docking to repair the VOITH Propulsion Unit to maintain regulated safe operations.

EXECUTIVE SUMMARY

The Craig Blake experienced an unforeseen mechanical issue with the Aft VOITH Schneider propulsion unit ("VOITH Unit") in September 2023 necessitating emergency dry docking. In the spring of 2024, issues on the same VOITH Unit were again identified and some minor repairs were done to keep the vessel in service. In September 2024 it was determined that an air injection system would need to be installed to temporarily minimize a water leak until the vessel could be dry-docked. Transport Canada Marine Safety (TCMS) is satisfied with the measures in place and awaits a further action plan timeline for the rectification of the overall issue.

The parts required for the repair of the VOITH Unit that have been identified need to be ordered as soon as possible to allow for long delivery lead times. The Craig Blake is scheduled for statutory dry docking in the 2025/26 fiscal.

It is recommended that we prepare to do both the dry docking and the repair at the same time, to avoid having the vessel out of service twice.

Funding for this repair work was not anticipated in the current 2024/25 fiscal. Dry docking was originally anticipated in 2025/26 and would be funded from Capital and Operational budgets, but we are requesting the funds be transferred from Options Reserve Q421 in 2024/25. This will allow for all work to be done at once avoiding multiple dry dockings which would be more costly.

RECOMMENDATION

It is recommended that the Audit & Finance Standing Committee recommend to Regional Council:

1. the approval of the transfer of funds from Options Reserve Q421 to facilitate the urgent repair work

to the Craig Blake VOITH Propulsion unit;

2. to bring forward funding originally set forth in the 2025/26 budget for regular maintenance for the Craig Blake so that this regular maintenance work takes place at the same time as the urgent repair work, to avoid having a disruption to service later in this fiscal year; and
3. the approval of funds of no more than \$2 million from Q421-Options reserve (as set forth in the Financial Implications section of this report) to provide the funding for the work set forth in Recommendations 1 and 2.

BACKGROUND

The Craig Blake experienced an unforeseen mechanical issue with the Aft VOITH Schneider propulsion unit ("VOITH Unit") in September 2023. The vessel was hauled out of the water and it was determined that internal machinery parts failed causing damage to the VOITH unit. Issues resurfaced in the spring of 2024 with the same VOITH Unit. A VOITH technician found no apparent cause or damage to any other parts on the top section of the unit at that time. Minor adjustments were made to the machinery and VOITH's recommendation was to keep the unit in service and continue monitoring.

In September 2024 water was reported to be dripping from the drainpipe on the same Aft propulsion unit. An Investigation was initiated to quantify the extent of water ingress and the reason behind it. VOITH was contacted immediately. They advised the issue is with the main seal on the bottom of the propeller, which will require dry docking to further investigate and repair. To help manage the water issue, VOITH provided details on an air injection system which would temporarily slow the water leak until the vessel could be dry-docked.

Transport Canada Marine Safety (TCMS) arranged for an immediate audit to be conducted to demonstrate and explain the issue and measures in place to minimize the issue. Transport Canada is satisfied with the measures in place currently and awaits a further action plan timeline for the rectification of the issue.

A VOITH technician attended the vessel to oversee the installation of the air injection system and observe the propeller. The vessel has since been operating as per the manufacturer's guidelines.

DISCUSSION

For further investigation and rectification, the Craig Blake will need to be removed from service and dry docked. Depending on the extent of the damage that may be discovered, there is potential for a complete major overhaul, rebuild, and/or replacement of the VOITH unit. Currently, the parts required for this work are not available in North America. Quotes were requested on an urgent basis and have been received for the parts required for the repairs (Attachments A & B). If a complete overhaul is required, there will be a need for structural work, involving cutting through two decks of the vessel.

All Halifax Ferries are on a maintenance rotation schedule that enables them to be in dry dock once every 5 years to adhere to safety guidelines while maintaining service levels. The Craig Blake is scheduled for dry dock maintenance in the 2025/26 fiscal; however, the identified urgent repair cannot wait for the regular rotation schedule. During the scheduled dry dock, the planned tasks on the Craig Blake include structural repairs to be completed to allow the propulsion units to be serviced in the future. The funding for this was originally planned under the Capital budget for the 2025/26 fiscal.

Estimated costs to complete the emergency repairs and scheduled maintenance are as follows:

Hatch Cover	\$350,000
VOITH Parts	\$400,000
VOITH Tech	\$100,000
Delivery/Docking	\$125,000
Labour/Supplies	\$100,000
Out of Water Repairs	\$150,000
Out of Water Paint	\$575,000
Hull Painting	\$200,000
	<u>\$2,000,000</u>

Painting estimates are high due to the time of year and the requirement to apply paint in a temperature-sensitive condition.

FINANCIAL IMPLICATIONS

The emergency funds needed from Options Reserve – Q421 are \$2,000,000.

Budget Summary: Options Reserve, Q421

Current projected balance Q421 at end of Q2, Sept 30,2024	\$9,952,791
Un-forecasted withdrawal for budget consideration	<u>(\$2,000,000)</u>
Forecasted available 2025/26 balance	\$7,952,791

The anticipated cost for a rotational dry docking was estimated at \$1.3 million, pending actual shipyard bids. Pricing varies depending on the time of the year when the vessel is in dry docking.

RISK CONSIDERATION

If the repairs are not carried out, the risk of a complete main seal failure is high. This would result in water flooding into the vessel, or contamination of water due to loss of oil into the vessel's surrounding area. There would be risks to both service and reputation, along with environmental impacts and cleanup.

TCMS is waiting for a comprehensive plan for the timely rectification of this issue.

If repairs are not carried out promptly, the VOITH unit condition could worsen and TCMS could revoke the vessel's certificate to operate.

The implications of not following the staff recommendation are two-pronged:

1. Upon dry docking, there could be serious damage found to the propulsion unit, which would warrant a major overhaul and removal of the unit. This would jeopardize the return of the vessel to service if the required parts are not available.
2. Separating the emergency repairs and the scheduled dry docking would increase the time the vessel is out of service in addition to the escalated costs of mobilizing twice.

COMMUNITY ENGAGEMENT

No community engagement was required.

ENVIRONMENTAL IMPLICATIONS

If the repairs are not carried out, there is a high risk of complete main seal failure resulting in water flooding into the vessel or contamination of water due to loss of oil into the vessel's surrounding area.

ALTERNATIVES

Audit & Finance Standing Committee could choose not to approve the recommendation to combine the statutory dry-docking with the urgent repair work now indicated, however the possible environmental impact, as well as the impact to service delivery would be substantial, and this is not recommended.

Audit & Finance Standing Committee could choose only to approve the urgent repairs and then return the Craig Blake to the water, only to pull it out again to do the dry docking. There would be a significant cost to pulling the vessel out of the water a 2nd time. The cost to loss of service, dry docking, and remobilizing the vessel would be significant.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter, SNS 2008, c 39:

120(6) The Municipality may maintain other reserve funds for such purposes as the Council may determine.

Administrative Order One, the Procedures of the Council Administrative Order, Schedule 2, Audit and Finance Standing Committee Terms of Reference:

8. The Audit and Finance Standing Committee shall review and make recommendations on proposals coming to the Council outside of the annual budget or tender process including:
- (a) new programs or services not yet approved or funded;
 - (b) programs or services that are being substantially altered;
 - (c) proposed changes in any operating or project budget items;
 - (d) the commitment of funds where there is insufficient approved budget;
 - (e) new or increased capital projects not within the approved budget;
 - (f) increases in project budget due to cost-sharing; and
 - (g) the creation or modification of reserves and withdrawals not approved in the approved budget