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29 December 2017

Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong
(Attn : Mr Anthony CHU)

Dear Mr CHU,

Public Accounts Committee
Consideration of Chapter 2 of the Director of Audit's Report No. 69
Procurement and maintenance of government vessels

Thank you for your letter dated 12 December 2017 to the Director of Marine, which I am authorized to reply on her behalf.

The replies in seriatim to the questions raised by the Public Accounts Committee are set out in the **Annex** attached.

I should be grateful if you could relay the attached information to Members of the Public Accounts Committee for their reference.

Yours sincerely,

(Tony C.S. CHAN)
for Director of Marine

Encl.

c.c. Secretary for Transport and Housing (Attn: Ms Louisa YAN)
Secretary for Financial Services and the Treasury (Attn: Miss Pat CHUNG)
Director of Audit (Attn: Mr LEE Sik-yum)

Public Accounts Committee
Consideration of Chapter 2 of the Director of Audit's Report No. 69
Procurement and maintenance of government vessels

Procurement of government vessels

- (a) According to paragraph 2.4 of the Audit Report, of the 187 mechanized vessels and high-speed craft in service as at 31 March 2017, 76 (41%) vessels had exceeded their expected lifespans by one to 12 years. Please advise whether the use of these vessels beyond their expected lifespans would adversely affect their safe operation;

Reply: The Marine Department (“MD”) attaches top priority on safety in maintaining the Government Fleet. A well maintained vessel can be used safely for years beyond its expected lifespan. Unlike vehicles, every part of a vessel from hull plates to propulsion engine can be replaced if necessary for upkeeping the vessel condition. That said, maintaining a vessel beyond its expected lifespan may not be desirable from value-for-money perspective as it may incur extra maintenance cost and downtime.

(b) With reference to paragraph 2.5 of the Audit Report, please provide

(i) a copy of the Government Fleet Division Circular No. 10/2008;

Reply: The Government Fleet Division Circular No. 10/2008 is attached at **Appendix A**.

(ii) when did the review of the application of the Government Fleet Division Circular No. 10/2008 start, and the reasons for the review;

Reply: The Task Force on Reform of the MD (“Task Force”) first reviewed the vessel replacement mechanism in October 2016 and suggested that there was a need to update the ship replacement guide taking into account other factors such as vessel types and the operating hours of the vessels (i.e. whether the vessel operates for eight hours or round-the-clock) when determining the vessel expected lifespans instead of solely based on the hull material of the vessels. Besides, since a vessel procurement project would take at least three to five years to complete, it will be much more difficult to consolidate procurement of vessels of similar types from different user departments at the same time. The MD thus took the opportunity to start the review on the Government Fleet Division Circular No. 10/2008.

(iii) the reasons for taking a long time to conduct the review mentioned in (ii) above; and

Reply: Since December 2016, the Government New Construction Section (“GNCS”) has been working with major user departments on their respective 10-year vessel replacement plans to project the upcoming procurement requirements. The exercise is still on-going and the experience gained from preparing the 10-year vessel replacement plans is useful and will be consolidated for the review of the Circular.

In addition, the Supplies Officer grade staff have been providing expert advice to the officers in the GNCS in vessel

procurement since February 2016 and the experience hitherto gained will also be taken into account in the review of the Circular.

(iv) expected completion date of the review;

Reply: The review is expected to be completed in the first quarter of 2018.

(c) With reference to paragraph 2.5(b) of the Audit Report, please provide:

(i) reasons for adopting a 10-year vessel replacement plan since December 2016;

Reply: Considering that a vessel procurement/replacement project would take at least three to five years to complete, it is considered that a 5-year rolling plan is insufficient to fulfil the purpose of long term planning for user departments. The MD has therefore adopted a more pragmatic approach in preparing a 10-year vessel replacement plan for user departments, which is a more comprehensive planning to meet the operational needs of user departments, and provides a more accurate forecast on the manpower resources requirement for the MD to take forward these projects in a practicable and longer term basis. Besides, a longer term planning provides the opportunity for bundling similar procurement projects into a single tender to shorten tender preparation time, reduce cost of tender administration and achieve economy of scale in procurement. Hence, the MD has worked with the Fire Services Department (“FSD”) to prepare a 10-year vessel replacement plan for the latter in December 2016 as a start.

(ii) the progress of implementing a tentative 10-year vessel replacement plan with major user departments; and

Reply: Subsequent to the preparation of a 10-year vessel replacement plan for the FSD in December 2016, the MD is now working with other major user departments, *viz.* the Hong Kong Police Force, the Customs & Excise Department, the Agriculture, Fisheries and Conservation Department, and user sections within the MD to formulate their 10-year vessel replacement plans.

(iii) whether considerations would be given to bundling similar procurement projects into a single tender to reduce cost of tender administration and speed up implementation time;

Reply: With the assistance of the Supplies Officer grade staff, the MD has started to bundle procurement of similar types of vessels from user departments into a single tender. Having the knowledge of the 10-year vessel replacement plans of major user departments, the MD would explore every opportunity to bundle similar procurement projects into a single tender to shorten tender preparation time, reduce the cost of tender administration and achieve economy of scale in procurement, which will help expedite vessel procurement.

- (d) According to paragraph 2.6 of the Audit Report, of the 76 vessels serving beyond their expected lifespans, 22 (29%) had not been included in the July 2017 vessel replacement plan. The Marine Department (“MD”) had not conducted condition assessments for two vessels and there were inadequate follow-up actions on the assessment results for 18 vessels. In this regard, please advise/provide:
- (i) interim measures taken/to be taken to ensure the continued safe and efficient operation of these 22 vessels;

Reply: The MD has been conducting inspections¹ and maintenance services to all government vessels, including these 22 vessels, from time to time, which include preventive services² and running repairs³ as necessary. In this connection, the conditions of these vessels are continuously under the close monitoring of the MD to ensure safety.

- (ii) the reasons for not conducting conditional assessments for two vessels one year and six years respectively after passing their expected lifespans;

Reply: As these two vessels are specialised vessels for pollution control and mainly put on stand-by mode for emergency readiness (i.e. oil pollution at sea), their conditions are assessed to be satisfactory owing to their operation mode and low frequency of use in comparison with other vessels of similar age. Indeed, the MD has been conducting preventive services

¹ An inspection conducted on a government vessel prior to the preventive services to identify any major maintenance items to be followed up at the coming scheduled docking.

² Preventive services mean the scheduled maintenance services to be conducted for a government vessel. Owing to a more comprehensive maintenance/repair is required during the occasion, the vessel will usually be lifted on dry-dock for an overall inspection, repair and other necessary maintenance services. This maintenance service would be conducted in suitable intervals in accordance with the operating mode and condition of the vessel.

³ Running repairs are carried out for a vessel under emergency condition or after an accident, etc. to bring the vessel back to a safe and operative condition for the user.

and running repairs to these two vessels and their conditions are closely monitored during the maintenance services to ensure that they are safe and efficient to operate despite the fact that condition assessments were not conducted previously.

The purpose of condition assessment is to assess the need and timing for vessel replacement taking into account previous maintenance records. As the vessels are still in satisfactory condition, there is no imminent need to conduct condition assessments to trigger vessel replacement. That said, the MD has carried out condition assessments on the two vessels (i.e. “Marine 38” and “Marine 59”) on 30 November 2017 and 1 December 2017 respectively, and they are re-confirmed safe and fit to operate.

- (iii) whether maintenance service had been conducted for the two vessels after passing their expected lifespans and provide a copy of the relevant maintenance logs;

Reply: Maintenance services have been conducted for these two vessels, namely “Marine 38” and “Marine 59”. Copies of the maintenance logs are attached at **Appendix B**.

- (iv) a copy of the maintenance logs for other types of vessels showing the frequency of maintenance services performed from January to December 2016;

Reply: Referring to our reply to question (d)(iii) above, “Marine 38” is a minor mechanised vessel type vessel and “Marine 59” is a major mechanised vessel type vessel. While the maintenance logs of these two types of vessels have been provided at **Appendix B**, the maintenance logs of the other type of vessel under paragraph 2.6 of the Audit Report, i.e. the high-speed craft (medium type), is attached at **Appendix C**.

- (v) the reasons for not taking adequate follow-up actions on the assessments results for 18 vessels; and

Reply: Although the expected lifespans of the 18 vessels have been exceeded, they are continuously maintained and under the

***Note by Clerk, PAC:** *Only a sample of maintenance log is attached.*

close monitoring by the maintenance staff of the MD. For vessels which have been advised for replacement according to the assessment results, the GNCS is now working with the users concerned to formulate their 10-year vessel replacement plans and will assist them to kick start the replacement work as early as possible. For other vessels which are subject to further assessments, they are still in satisfactory condition based on their maintenance records. The MD considered that there was no imminent need to conduct further condition assessment to trigger vessel replacement at the material time. Nonetheless, condition assessments for these vessels are being arranged.

(vi) measures taken/to be taken in response to the recommendations of the Audit Commission in paragraph 2.36(a)(ii) of the Audit Report;

Reply: Apart from the follow-up actions taken by the MD for user departments as mentioned in (v) above, the MD is examining means to enhance the Government Fleet Information System to facilitate better planning of condition assessment and vessel replacement. The system enhancement will allow better utilisation of maintenance records to improve planning for condition assessments, and better utilisation of condition assessment reports to facilitate scheduling and bringing up of the vessels concerned for follow-up action with the user departments. .

- (e) According to paragraphs 2.9 and 2.10 of the Audit Report, as at 31 August 2017, MD was managing 25 ongoing procurement projects for 90 vessels of the four major classes, eight of which were approved by the Finance Committee ("FC") of the Legislative Council and the remaining 17 projects were approved by the Legislative Council in the context of the Appropriation Bill or by the Financial Secretary. Five of the eight FC approved projects could not meet their target dates of vessel delivery (from August 2013 to March 2017). The delays ranged from five months to four years up to August 2017, with three projects still in tender stage. For the other 17 projects, seven (involving 19 vessels) were approved before 2013-2014. The progress of three projects was particularly slow, i.e. they were still in the tender stage some five years after funding approval. In this connection, please provide measures taken/to be taken to speed up the implementation of these delayed procurement projects;

Reply: The relatively slow progress in the procurement of government vessels during the period from 2010 to 2013 has led to the ageing of major vessels in the government fleet. The main reason was a shortage of staff with procurement experience in the MD.

Unlike vehicles, new vessels are usually tailor-made and thus take more time to procure. In general, it will take three to five years to complete the entire procurement process including design, finalising requirements of user departments, tendering, supervising vessel construction, testing and delivery. Once there is a backlog of government vessel procurement projects, it would be difficult to clear them within a short period of time, and hence further aggravating the ageing problem of the vessels.

The MD has implemented a series of measures to expedite the replacement of government vessels as a means to lower the average age of the fleet. The measures include strengthening the management oversight of the Government Fleet Division ("GFD"), strengthening the manpower of the Surveyors of Ships ("SoS") grade in the GNCS and proactively adopting the outsourcing approach to further expedite the progress of shipbuilding work.

To strengthen the management oversight of the GFD, the Director of Marine had changed the reporting line of the GFD to the Deputy Director of Marine (Special Duties) in phases since December 2015. Furthermore, the Director of Marine and Deputy Director of Marine (Special Duties) had attended the Government Dockyard management meetings since February 2016 on a regular basis.

In order to strengthen the manpower for government vessel procurement, apart from recruiting retired civil servants to serve as Contract SoS in the GNCS to assist in the related work, the MD has launched direct recruitment for Senior SoS to help relieve the manpower shortage problem. Besides, two Supplies Officer grade staff with rich procurement experience have been deployed to the GNCS since early 2016 to assist in vessel procurement work. With the assistance of the Supplies Officer grade staff, the GNCS has implemented a series of measures to improve the procurement procedures since early 2016, including standardisation of provisions of tender documents and contracts, and the bundling of procurement projects involving vessels of the same type in tendering, so as to speed up the vessel procurement work.

Moreover, the MD has been proactive in outsourcing some of the work of shipbuilding projects to external consultants on the condition that the work shall be subject to the supervision of the MD staff, so as to further expedite the progress of shipbuilding work.

The above measures have started to deliver results. From January 2016 to November 2017, the MD has already conducted 11 tender exercises involving 52 government vessels for six departments. Other vessel procurement projects with funding approved are also underway.

- (f) With reference to Item 3 of Table 3 in paragraph 2.9 of the Audit Report, the reasons for the substantial delay in the implementation of the procurement project as the fireboat in question had been in service since 1990;

Reply: Following MD's advice on the result of condition assessment on the vessel (i.e. Fireboat 7) in 2009 and taking into account the performance of the vessel at that time, the FSD initiated actions to procure a replacement vessel in late 2009. After the proposal was approved by the Standing Committee on Government Craft of the MD in May 2010, the FSD further revised the requirements of the new vessel in April 2011 to include enhanced functions for modern operational needs and equipment in handling chemical, biochemical, radiological and nuclear ("CBRN") related incident. As there was no fireboat or rescue boat in Hong Kong had ever been installed with CBRN protective system at that time, the MD conducted research and liaised with experts to acquire relevant information to estimate the costs for the preparation of the funding submission to the Finance Committee ("FC"). The funding proposal, including a general framework of the new requirements, was finally approved by the FC in June 2012. The delay in planning the procurement of the replacement vessel is also mentioned in the Audit Report No. 67 Chapter 3 and the Audit Commission advised that the FSD needed to improve the planning of operational requirements for vessel replacement projects (relevant parts extracted at **Appendix D**)

Although general information on the CBRN protective system was acquired to enable cost estimation for the FC's approval, they were not sufficient for tendering purpose. More detailed information on the technology and equipment available in the market was necessary for preparing the tender documents and such information was difficult to acquire. To ensure that the technical specifications would incorporate the latest technology and meet the user's need, longer time had been taken to conduct research and discussions with the FSD and overseas experts. In June 2013, the FSD came up with the user requirements for the CBRN system. Major tasks taken place from June 2012 to June 2013 are highlighted below:

- Conducted research and study the classification society rules on the CBRN system;

***Note by Clerk, PAC:** *Appendix D not attached.*

- Liaised with relevant classification societies and overseas experts in providing expert advice on the detailed technical specifications and technology of the CBRN equipment;
- Arranged presentation and meeting with overseas experts and the user to understand the latest development and the best practices of the CBRN technology and to exchange views on the detailed requirements on the equipment; and
- Discussed with the overseas experts and the user on the detailed technical specifications and refined the requirements further to meet operational needs.

As the MD had been suffering from serious manpower shortage of Surveyors of Ship (“SoS”) grade staff and there was backlog of vessel procurement projects, the GNCS informed the FSD in writing in mid-2013 that tender invitation for the project could only be issued in December 2017 unless sufficient SoS grade staff were employed and project management work was outsourced to external consultants. While the two initiatives were subsequently implemented, the manpower situation at the GNCS was not significantly improved at the material time as the vacant SoS grade posts could not be filled and the progress of the outsourcing work was slow at the start (detailed at (m) below). As a result, in early 2015, the MD informed the FSD in writing that the Fireboat 7 project would be suspended. Following the appeal from the FSD that priority should be accorded to commence the project, the GNCS re-prioritised workload and resumed the tender preparation work for Fireboat 7 in June 2015. The progress of the project was slow at the beginning, and the situation had improved when two Supplies Officer grade staff with rich procurement experience were deployed to the GNCS in early 2016 to assist in vessel procurement work. The delay in implementing the replacement project was also mentioned in the Audit Report No. 67 Chapter 3 and Audit Commission advised that the MD needed to take measures to ensure that the FSD’s projects are implemented in a timely manner (relevant parts extracted at **Appendix D**). The MD has implemented a series of measures to expedite the procurement of government

***Note by Clerk, PAC:** *Appendix D not attached.*

vessels with details mentioned at (e) above. The tender invitation for Fireboat 7 was issued in October 2016 and the shipbuilding work is in progress.

- (g) With reference to paragraph 2.13 of the Audit Report, the reasons for taking almost three years (from December 2009 to October 2012) to review the marking scheme for assessing tenders of vessel procurement projects, and provide a copy of the relevant documents/correspondences between all relevant parties, such as the Government New Construction Section ("GNCS") of MD, the Central Tender Board, the Department of Justice ("DoJ") and the Financial Services and the Treasury Bureau ("FSTB"), on the review of the marking scheme;

Reply: The Central Tender Board ("CTB") advised the MD in December 2009 to refine the provision on discretion of the marking scheme in consultation with the DoJ. At that time, the MD would like to take the opportunity to conduct a fundamental review on the marking scheme with a view to establishing a refined standard marking scheme suitable for all vessel types to save tender preparation time. As the review was very complicated and there was no Supplies Officer grade staff in the GNCS to provide technical advice at that time, it took a long time for the GNCS staff to review the marking scheme. However, due to the uniqueness of individual vessel types, it was finally concluded in April 2012 by all relevant parties that establishing a refined standard marking scheme suitable for all vessel types was not feasible. Instead, a marking scheme for a specific vessel type could be submitted to the CTB for approval. Finally, the marking scheme for the high speed craft project was approved by the CTB in October 2012.

With the lesson learnt from the review and in hindsight, to avoid recurrence of similar incident, the MD should have adopted a dual track approach, i.e. continuing the procurement work using the previous marking scheme with the provision on discretion reviewed, while conducting the comprehensive review of the marking scheme in parallel and keeping the senior management updated and obtaining steer if required, and actively and closely liaising with relevant parties to resolve any issues encountered as early as possible.

A copy of the relevant documents/correspondences on the review of the marking scheme is enclosed at **Appendices E⁴ and F**.

***Note by Clerk, PAC:** *Appendices E and F not attached.*

4 As the legal advice contained in the relevant documents/correspondences is subject to legal professional privilege, they are provided herewith subject to the conditions that: (a) the legal advice will be disclosed to PAC members only for the purpose of PAC's consideration of the Audit Report; (b) the PAC members must not disclose the legal advice to any other persons; and the contents of the legal advice shall not be referred to in any public hearings or public documents; and (c) the disclosure is without prejudice to our stance that the legal advice is privileged and no waiver thereof shall be deemed.

(h) With reference to paragraphs 2.14 and 2.15 of the Audit Report, please explain:

- (i) the reasons for having no record showing any reporting/discussion at the meetings of the Government Dockyard or the MD's senior management of the likely impact of the protracted review mentioned in (g) above and any possible measures to mitigate the impact (such as reassessing the need for using marking schemes for the pending procurement projects); and

Reply: We have searched all available records in the MD, but there is no record showing any discussion of the impact of the review of the marking scheme on the procurement projects, and/or measures to mitigate the impact at the meetings of the Government Dockyard or the MD's senior management. This is due to unsatisfactory record keeping in the MD at the material time. The situation has been improved since May 2014. Notes of meeting are prepared for regular meetings with the senior management to record the deliberations of the meetings.

- (ii) the reasons for having no record showing that MD had responded to DoJ's suggestion that MD should review the need for using a marking scheme in December 2010;

Reply: We have searched all available records in the MD, but there is no record showing that the MD had responded to the DoJ's suggestion to review the need for using a marking scheme in December 2010. However, the MD had in fact followed the DoJ's advice. During 2012 to 2014, there were three projects making use of marking scheme and three tendering projects were found without marking scheme as the use of marking scheme was considered not necessary.

(i) According to paragraph 2.14 and Appendix C of the Audit Report, MD had stopped using marking scheme for new construction projects since FSTB issued Circular Memorandum No. 8/2014 in August 2014 to remind bureaux/departments to avoid excessive use of marking scheme. In this connection, please provide:

(i) a copy of the relevant documents, such as minutes of meetings or internal circulars, relating to MD's decision to stop using marking scheme for new construction projects upon receipt of FSTB Circular Memorandum No. 8/2014;

Reply: A briefing session on the subject matter was held by the Government Logistics Department (“GLD”) on 12 January 2015 for officers in bureaux/departments responsible for handling procurement matters and most of the GNCS staff responsible for vessel procurement attended the briefing. GLD distributed the materials discussed at the briefing session to the participants and the materials were put on file for future reference.

It has been the MD’s understanding that the use of marking schemes in tender evaluation is not the only means to secure better quality for the goods and services procured. It is clearly stipulated in the circular memorandum that setting clear and attainable quality-based tender specifications, cutting excessive “essential requirements” especially those at risk of protecting the interest of incumbents, and proactive marketing of tenders which repeatedly attracted only one or two bidders are often more direct and effective for promoting real competition. MD is mindful that some 70 – 80% of contracts with marking schemes approved by the CTB and the Government Logistics Department Tender Board (“GLDTB”) between January 2012 and May 2014 were ultimately awarded to bidders with the lowest price offered, and that it is debatable whether the use of marking schemes *per se* has offered extra safeguard to the quality of the tender returns in these cases.

For the MD, some 90% of contracts with marking schemes used by the vessel procurement projects from 2003 to 2014 were ultimately awarded to bidders with the lowest price

offered. Based on the above figure and after careful consideration, the MD considers that setting essential requirements including technical specifications clearly as assessment criteria in the tender documents could serve the same objective for using marking scheme to secure good quality for the vessels to be procured from value-for-money perspective.

- (ii) how MD interpreted FSTB Circular Memorandum No. 8/2014, i.e. under what conditions/circumstances a marking scheme should be used; and

Reply: Please refer to our reply to question (i)(i) above.

- (iii) the evaluation criteria used by MD in tender assessment since then, including how many times MD has used marking schemes in evaluating tenders;

Reply: The MD conducted tender evaluation according to the guidelines set out in the Stores and Procurement Regulations (SPR) 370 (Evaluation of Tenders) (see attached **Appendix G**). Since the second quarter of 2014, the following evaluation criteria are used by the MD in tender assessment which involves three stages as detailed in Annex A of the Conditions of Tender (see attached **Appendix H** and **Appendix I**) and are summarised below:

Stage 1 (Price Assessment) - Tenders will be checked to identify the Tenderer which has submitted the lowest Total Purchase Price among all Tenderers.

Stage 2 (Completeness Check) - Tenders will be checked for their completeness in compliance with the procedural requirements stipulated in the tender documents.

Stage 3 (Assessment of Compliance with Essential Requirements) - Tenders will be checked for their compliance with the essential requirements and tender specifications as detailed in the tender documents. Any tender which fails to meet any of the essential requirements will not be considered further.

A Tenderer which has quoted the lowest Total Purchase Price and has passed Stages 2 and 3 assessments will be recommended for acceptance. If the tender has failed in Stage 2 or Stage 3 assessment, the tender with the second lowest Total Purchase Price will undergo Stages 2 and 3 assessments. This assessment process will be repeated until a successful tenderer is identified (if any).

To protect the interest of the Government, it has been stipulated in the Conditions of Tender that, in evaluating the tender submitted and awarding the contract, (a) the Government is not bound to accept the tender offering the lowest Total Purchase Price; and (b) the award will normally be made to the recommended Tenderer identified in Annex A to the Conditions of Tender or to the Tenderer whom the Government considers to be fully capable of undertaking the Contract.

The MD has not used marking schemes in tender evaluation for procurement of government vessels since the second quarter of 2014. Since then, in each vessel procurement exercise, we would assess if the above-mentioned evaluation criteria in tender assessment are sufficient and appropriate to handle the project, and marking scheme will only be used if considered necessary.

(j) With reference to paragraphs 2.17 and 2.21 of the Audit Report, please provide:

(i) details of the actions taken to mitigate the impact of the shortage of Surveyors of Ship ("SoS") grade staff on the delivery of procurement projects;

Reply: The MD has implemented a series of measures to expedite the replacement of government vessels as a means to lower the average age of the fleet. Such measures include strengthening the manpower of the SoS grade in the GNCS and proactively adopting the outsourcing approach so as to further expedite the progress of shipbuilding work.

In order to strengthen the manpower for government vessel procurement, apart from recruiting retired civil servants to serve as Contract SoS in the GNCS to assist in the related work, the MD has obtained additional resources to enhance the staffing of the GNCS including the creation of three additional SoS posts on a time-limited basis from 2014/15 to 2021/22 and the creation of an additional Senior SoS on a time-limited basis from 2017/18 to 2021/22. With the creation of these additional SoS grade posts, the MD is able to form two procurement teams comprising a total of eight SoS grade staff posts for clearing the vessel procurement projects. In addition, two Supplies Officer grade staff with rich procurement experience have been deployed to the GNCS since early 2016 to assist in the vessel procurement work.

Moreover, the MD has been proactive in outsourcing some of the work of shipbuilding projects to external consultants on the condition that the work shall be subject to the supervision of MD staff, so as to further expedite the progress of shipbuilding work.

(ii) short-term measures taken as well as other measures to be taken by MD to address the difficulties of recruiting new SoSs while at the same time ensure that they possess the mechanical knowledge essential to the procurement of vessels; and

Reply: In order to alleviate the manpower shortage of the SoS grade, the MD has implemented various stop-gap measures in order to cast a wider net in recruiting SoS in recent years. Measures taken include granting of incremental credits for working experience, relaxation of the language proficiency requirement and waiving/relaxation of entry requirement on working experience through sub-entry point. Besides, the MD has recruited retired SoSs to serve as Contract SoS in the GNCS to assist in the related work and has launched direct recruitment for Senior SoS.

For medium- and long-term measures, the Standing Commission on Civil Service Salaries and Conditions of Service completed a review of the grade structure of the two professional grades (i.e. SoS grade and the Marine Officer grade) of the MD and submitted a report to the Chief Executive on 31 October 2017. The proposal was discussed and received members' support at the meeting of the Panel on Public Service of the Legislative Council on 22 December 2017. The MD hopes that the recommendations in the report could be implemented as soon as possible to solve the manpower shortage and succession problems of the SoS grade fundamentally.

- (iii) measures taken and other measures to be taken to retain experienced SoSs and reappoint retired SoSs, including under what circumstances retired SoSs would be reappointed as non-civil service contract staff or civil servants in MD, and the conditions of service under each of these reappointments;

Reply: In order to retain the experience of the SoS grades, the MD has employed retired officers in the SoS grades as Non-Civil Service Contract Staff. Following the introduction of the Post-retirement Service Contract ("PRSC") Scheme by the Government in November 2015, the MD has employed retired SoS grade officers as PRSC staff. The circumstances under which retired SoSs were employed and the conditions of service for these appointments are in line with the purposes and guidelines of the schemes as stipulated in the relevant civil service circulars. The MD also welcomes the introduction of the Further Employment beyond Retirement Age ("FE") policy

rolled out in June 2017. After completion of the 2018 promotion board of the SoS grade, the MD will go through a due process to consider the need for the FE Scheme, and if required, to invite eligible officers to apply for the FE Scheme so as to retain experienced SoSs grade staff in the MD.

- (k) According to paragraph 2.23 of the Audit Report, as a measure to clear the backlog of vessel procurement projects, the Transport and Housing Bureau approved funding of \$35.44 million in October 2013 for the MD to engage consultants from 2014-2015 to 2016-2017 to manage 10 procurement projects of 26 vessels. In this connection, please advise the division of work between GNCS and the consultants in the management of these procurement projects during the different stages of procurement process, in particular in the tendering and contract award stage (paragraph 1.7 of the Audit Report refers);

Reply: The consultancy services include carrying out conceptual design and preparing technical specifications prior to the award of shipbuilding contracts, and providing project management services after the award of shipbuilding contracts.

For consultants engaged prior to the award of shipbuilding contracts, they are under the supervision of the GNCS, and responsible for arranging meetings with stakeholders (including the GNCS, user departments, equipment suppliers, etc.) for preparation of the conceptual design of vessels, conducting feasibility study and preparation of vessel design and technical specifications. The GNCS, in addition to monitoring the consultant's work, is responsible for preparation of tender documents, tendering and evaluation as well as award of shipbuilding contracts.

For consultants engaged after the award of shipbuilding contracts, they are also under the supervision of the GNCS, and responsible for project management including monitoring of progress, plan review of drawings, supervising vessel construction, dock trial and equipment commissioning, and sea trial and vessel delivery. The GNCS, in addition to monitoring the consultant's work, is responsible for confirmation of milestones completion and arranging payment, vessels acceptance, etc.

- (1) Which grade of officers in GNCS or in other sections of MD are responsible for preparing/vetting tender documents for procurement of vessels;

Reply: The SoS grade officers in the GNCS of the MD are responsible for the preparation/vetting of tender documents for vessel procurement.

- (m) With reference to paragraphs 2.23 and 2.24 of the Audit Report, the reasons for the slow progress in outsourcing the management of the project management work;

Reply: In October 2013, the MD obtained funding from the Transport and Housing Bureau to engage consultants from 2014-15 to 2016-17 to manage ten vessel procurement projects in order to relieve the manpower shortage of the GNCS. In recent vessel procurement projects, the MD has included the costs on project management when bidding funding for vessel procurement projects. On the latest progress of outsourcing of project management work, the MD has engaged one, two, two and nine⁵ consultancy services in 2014, 2015, 2016 and 2017 respectively. This clearly shows that although the progress in outsourcing was slow at the start, there is significant improvement after gaining experience on outsourcing in recent years.

As the outsourcing of project management of shipbuilding to help relieve the MD's manpower shortage at that time was a new frontier of work for the MD, the MD had taken some time to ascertain the market response of such consultancy services, deliberate the division of labour between consultants and the GNCS staff, and prepare the relevant consultancy briefs and selection documents for outsourcing. This explains why the outsourcing work was slow at the start.

With the experience gained from the first few outsourcing contracts, the MD has accumulated better knowledge on market response as well as developed the necessary documents for the consultant selection process. The engagement of external consultants would also need to be carefully planned to dovetail the vessel procurement cycle because it could be a consultant to help prepare the conceptual design and technical specifications of the vessel in the pre-tender stage and/or a consultant to help manage the shipbuilding work after the tender was awarded to a contractor. That said, with the manpower shortage situation improved and the backlog in procurement projects gradually cleared, it is envisaged that the need for engaging consultancy services could be reduced in future.

⁵ Including three invitations on consultancy services under evaluation.

- (n) According to paragraphs 2.28 and 2.29 of the Audit Report, discrepancies were found in the tender documents of two vessel procurement projects after invitation of tenders. As a result, one of the projects was delayed by one year. Please advise the underlying causes of the discrepancies and the measures to be taken to prevent recurrence of similar problems;

Reply: The discrepancies were caused by human error arising from the oversight of the GNCS staff responsible for preparation of the tender documents concerned. Two procurement teams have been set up under the GNCS with additional manpower resources acquired to expedite vessel procurement work. The two teams would cross-check and verify each other's work to strengthen the checking of tender documents and prevent recurrence of similar problems.

- (o) According to paragraphs 2.33 to 2.35 of the Audit Report, frequent machine failures were found in two new vessels during the warranty period from February 2015 to February 2016 and/or in the following year, resulting in downtime of 196 days and 125.5 days respectively. Please advise:
- (i) the reasons for not conducting any review of the excessive downtime of the two vessels up to August 2017;

Reply: Up to November 2017, the MD has given priority to urging the contractor to rectify the defects found and pressing the contractor to ensure the repair items would operate smoothly under their expenses, as well as instigating penalty measures on the contractor (detailed at (v) below). MD has started the review on the issue.

- (ii) did any defects in relation to the radar, navigation light and alarm recur or other new defects occur since March 2017 for the two vessels; and the downtime of the vessels since March 2017;

Reply: After the contractor had fixed the defects in March 2017, only a defect of the alarm on one vessel occurred once on 25 July 2017. Adjustment was made to the alarm panel by the manufacturer to resume the system back to normal where no downtime was involved as it did not affect the operation of the vessel.

- (iii) measures to be taken to prevent recurrence of similar problems;

Reply: To avoid the recurrence of similar incidents, the MD has taken the following measures:

- Reduction in waiting time for spare parts – the MD has enhanced the availability of essential spare parts by including the items in new shipbuilding contracts with a view to reducing the waiting time for spare parts. In addition, regular reviews on the stock level of essential

spare parts for vessels are conducted to ensure that maintenance needs can be met effectively taking into account the trend of utilisation of relevant items;

- Improvement of internal work coordination – the MD has strengthened the GNCS's monitoring on ship construction work and a checklist has been devised to ensure that all necessary items are in satisfactory condition at surveys during shipbuilding stage and vessel acceptance. A special team comprising of project surveyor and technical staff has been set up to look after the vessels under warranty; and
- Relief of manpower shortage – the MD has been engaging consultants to supervise the construction of vessels at the shipyard to ensure the quality of the design, craftsmanship and construction of the vessels with a view to relieving the manpower shortage of the GNCS.

- (iv) whether the relevant repair cost was borne by the contractor concerned after the warranty period; and

Reply: In view of the frequent machine failures of the vessels, the warranty period was extended for three months after expiry of the 12-month warranty period. The MD has subsequently agreed with the contractor that the contractor is required to step up monitoring of the condition of certain key items and bear the repair cost of such items even after the extended warranty period.

- (v) any penalty measures were instigated on the contractor concerned, such as points deduction in future tenders or barring the contractor concerned from submitting any tenders in the future;

Reply: The MD has instigated penalty measures on the contractor concerned as follows:

- (a) The warranty period for the generator was extended for three months after expiry of the original 12-month

warranty period. Under Clause 18.3 (Warranty Services) of the Conditions of Contract, the warranty services shall be provided by the contractor free of charge to the Government throughout the warranty period. The contractor was therefore required to absorb the cost incurred at the extended period.

- (b) A portion (5%) of the instalment payment was retained by the Government as retention money. According to Clause 22.5 of the Conditions of Contract and Schedule 3, the entire retention money was released recently after all the warranty items have been rectified.
- (c) A warning letter has been issued to the contractor to reiterate the relevant provisions of the tender document for the Government to exercise its rights in future award of tenders. In view of the frequent machine failure of the two vessels during the warranty period, in accordance with Clause 27 (Contractor Performance Monitoring) of the Conditions of Tender, the contractor has been reminded that its subsequent performance will be monitored and will be taken into account when its future tenders are evaluated.

Maintenance of government vessels

- (p) With reference to paragraph 3.3 of the Audit Report, the measures to be taken to improve the declining rate of vessel availability;

Reply: The measures taken by the MD include –

- setting up a special vessel inspection team in the Maintenance Section to arrange on-site inspection and maintenance at the marine bases of user departments;
- conducting weekly meetings among the Maintenance Section, the Supplies Services Unit and the team responsible for ship repair co-ordination and sea trial, etc. to plan for the maintenance work by arranging spare parts and coordinate the use of the shipyard maintenance facilities as early as possible so as to shorten the waiting time for spare parts and shipyard maintenance facilities; and
- exploring the feasibility of optimising the Government Fleet Information System to enable the MD to analyse the past trend on spare part consumption and order the required spare parts in advance so as to reduce the waiting time for spare parts.

- (q) According to paragraph 3.8 of the Audit Report, the total downtime of the four major classes of vessels increased by 24.6% from 2012 to 2016, with the average downtime per vessel increasing from 36 days in 2012 to 44 days in 2016. According to paragraph 3.9 of the Audit Report, MD said that the main reason for the increase in downtime was the ageing problem of the government vessels and with a view to counteracting the ageing effect of the vessels, such as maintaining their service speed, preventive service had been enhanced which also caused extra downtime. Please advise whether it is cost-effective to maintain vessels serving beyond their expected lifespans in this regard;

Reply: It is not desirable from value-for-money perspective to maintain vessels serving beyond their expected lifespans having regard to the extra maintenance costs to be incurred and increased downtime. However, in view of the ageing problem of the government vessels, it is a responsible move for the MD to acquire additional resources to enhance adequate preventive maintenance service to vessels serving beyond their expected lifespan to ensure that the vessels are safe to operate.

- (r) With reference to Case 3 in paragraph 3.13 of the Audit Report, a copy of initial investigation report prepared by MD on the flooding of a high-speed craft of the Hong Kong Police Force and actions to be taken to prevent recurrence of similar problems;

Reply: Subsequent to the initial investigation report conducted by the MD, instruction was given to the maintenance inspectors of the MD in conducting similar inspection of this type of vessel on 27 September 2017, including the maintenance materials to be used during preventive services. A copy of the initial investigation report prepared by the MD is attached at **Appendix J**.

- (s) With reference to paragraphs 3.17 and 3.18 of the Audit Report, the measures to be taken to enhance competition in the procurement of vessel maintenance services; and

Reply: The MD is all along committed to enhancing the competitiveness of procurement of vessel maintenance services. Starting from early 2017, a range of measures to enhance competitiveness have been introduced. For example, since early 2017, the contract periods of a total of 20 fixed-term maintenance contracts have been increased from one year to two years. So far, out of a total of 33 fixed-term service contracts, the contract periods of 26 contracts have been designated as two years. For the remaining seven fixed-term service contracts, the MD will also consider increasing their contract periods from one year or 18 months to two years.

Furthermore, taking into account market affordability and its impact on small businesses, the MD has adopted the tendering strategy of consolidating same type of maintenance service contracts as far as possible to enhance the attractiveness of the contracts to bidders.

- (t) According to paragraph 4.17 of the Audit Report, in 2016, MD commissioned a consultant to conduct a pre-feasibility study of the modernisation of the Government Dockyard. Please provide the scope, progress and expected completion date of this study.

Reply: The Electrical and Mechanical Services Department assists the MD to conduct a pre-feasibility of the modernisation of the Government Dockyard. The scope of the pre-feasibility study is to review the entire operations of the Government Dockyard and the corresponding installation including equipment, facilities, site layout, logistics and operating methods with a view to proposing and giving direction to a further feasibility study. The final report of the pre-feasibility study will propose a selection of available technology and methods of operation, facilities, logistics for the servicing, handling and storage of vessels, parts equipment and other materials and technologies for a further feasibility study.

The pre-feasibility study is at the final stage and expected to be completed in March 2018. Upon completion of the current study, the Government will embark on the feasibility study.

List of Appendices

- Appendix A:** The Government Fleet Division Circular No. 10/2008
- Appendix B:** MD038, a Minor Mechanised Vessel Type Vessel – Maintenance Log,
(from 1 Jan 2012 to 30 Nov 2017)
MD059, a Major Mechanised Vessel Type Vessel - Maintenance Log,
(from 1 Dec 2016 to 30 Nov 2017)
- Appendix C:** MP08, a High-Speed Craft (Medium Type) - Maintenance Log,
(from 1 Jan 2016 to 31 Dec 2016)
- Appendix D:** Extracts of the Audit Report No.67 Chapter 3
- Appendix E:** Correspondences with Department of Justice (Restricted to PAC
Members Only)
- Appendix F:** Correspondences with Financial Services and the Treasury Bureau
and Government Logistics Department
- Appendix G:** Stores and Procurement Regulations (SPR) 370 (Evaluation of
Tenders)
- Appendix H:** Extracts of MD Shipbuilding Tender No. 2/2017 - Tender Evaluation
- Appendix I:** Extracts of MD Shipbuilding Tender No. 3/2015 - Tender Evaluation
- Appendix J:** Initial Investigation Report for Case 3 (redacted version)

***Note by Clerk, PAC:** *Only a sample of maintenance log is attached.
Appendices D to F not attached.*

Ref.: MDGFGR 1-125/3 (1)

GOVERNMENT FLEET DIVISION CIRCULAR NO. 10 / 2008

To: All Staff of Government Fleet Division

Rolling Plan of 5 Years on New or Replacement of Government Vessels

Government Fleet Division (GFD) is responsible for maintaining the efficient marine transport services for all Government departments. Hence, GFD would routinely examine the cost-effectiveness of existing Government fleet (GF), plan ahead for their replacement with new vessels and also liaise with GF user departments ^(Note 1) on any of their new requirements.

2. Under the role of SCOGC, Section Heads of GFD would meet routinely to review the **“Government Fleet Replacement Projection Plan for 10 Years”** with the purpose to identify any existing vessel within three to five years from the end of its expected lifespan due for replacement. On the other hand, if GF user departments find out the need with justifications for acquiring new vessels for their operation, they could also seek assistance of GFD. A **“Rolling Plan of 5 Years on New or Replacement of Government Vessels”** will be compiled by concerned sections for submission to SCOGC yearly in April or May for consideration and being updated as required.

3. In general, Maintenance Section (MS) is tasked to advise concerned GF user departments regarding the proposal on vessel(s) replacement plan based on the information from “Condition Assessment Report” of the existing vessel(s). Once the user department has decided to pursue replacement plan as suggested by MS, Government New Construction Section (GNCS) will be contacted. GNCS will then advise GF user departments on the issues of feasibility study of replacement vessel or a series of vessels or new vessels.

4. The procedures of procurement of new vessels, whether for additional needs or replacement purpose of a GF user department, are elaborated in the following.

Note 1 “GF User-department” means user-department of Government fleet or GFD maintenance programme as well as the owner-department (on behalf of the Government of HKSAR) of Government vessel(s) for which the funding for procurement of new vessel(s) and their maintenance expenditure were justified and obtained by the concerned department.

4.1. Replacement of an Existing Government Vessel

(A) Preferably, two years (usually not more than three years) before the expected life-span of an existing Government vessel is due, condition assessment report of the concerned vessel would be compiled by Maintenance Section (MS) which includes the following information:-

- (a) Assess the physical condition of the concerned vessel (hull, machinery and electrical conditions) with comments of possible shortcomings and recommendations for any rectification required for safe operation in its remaining lifespan;
- (b) Evaluate the average annual maintenance cost/expenditure of the existing vessel (to adopt last 4 years average) from information extracted from the GFIS system – These figures will be used for projecting the adequate average annual maintenance cost of the vessels for the remaining 2 to 3 years' operating life in comparison with the baseline budget vote. For proper control of expenditure of an existing vessel planned for phased out, such average annual expenditure is normally reducing towards its full lifespan for reason of keeping it at a reasonable minimum level as far as practicable.
- (c) Estimate the average annual maintenance cost/expenditure for the new vessel to cover its projected lifespan – it is required to evaluate the average annual maintenance cost/expenditure of the existing vessel being replaced covering its full lifespan, including the projected expenditure for operation till the remaining operation of 2 to 3 years indicated in above paragraph. **This average annual maintenance cost/expenditure (the mean value) denoted as X is defined as the total cost/expenditure ^(Note II) of the vessel for full lifespan divided by number of years of its lifespan.**
- (d) The following scenarios should be derived and closely examined:-
 - (i) For situation no BLOCK VOTE non-recurrent cost has been used, the total lifespan expenditure (actual or projected) of the existing vessel minus its agreed annual maintenance expenditure budget assigned at new-building stage would be the amount of overspending (i.e under budgeted) if it is positive or vice-versa.

^{Note II} *Currently, about 10 years cost/expenditure of each vessel is available from the GFIS system which can be used for projecting its cost/expenditure covering full lifespan (i.e. 8, 15 or 20 years' lifespan for hull material of rubber/plastic, GRP/ aluminum or steel respectively). The total cost/expenditure must be presented in two parts, one part expenditure is from the baseline recurrence cost and the other part is from BLOCK VOTE non-recurrent cost (if any) to test scenarios as indicated at sub-paragraph (d) below.*

- (ii) For situation BLOCK VOTE non-recurrent cost has been used, the total lifespan expenditure of the existing vessel minus its block vote non-recurrent cost and also minus its agreed maintenance expenditure budget assigned at new-building stage would be the amount of over-spending (i.e. under-budgeted) for the existing vessel if it is positive or vice-versa.
- (iii) For the average of annual maintenance budget of the new vessel (X), the amount X to be adopted would be the average annual maintenance cost/ expenditure of the existing vessel covering its full lifespan as explained in para. 4(A)(c) above plus any topping up adjustment for any extra item or variation of design or inflation where justifiable.
- (e) For any surplus of maintenance budget or amount over-budgeted from the baseline vote of the existing vessel, we should make sure no BLOCK VOTE non-recurrent cost/expenditure amount to be surrendered as saving for the new building replacement.
- (f) Estimates of fuel and luboil consumption and expenditure are to be made for the new vessels with reference to expenditures and budget amount of the existing vessel by FOS/ ASS/ GF user department, as appropriate.

The above costing evaluation must be consulted with and vetted/endorsed by Accounts Services Section (ASS) before finalized and reported.

(B) MS would inform the concerned GF user department through a Memo (with cc copy to GNCS) enclosing with "Proposal on Vessel(s) Replacement of an existing vessel or a series of existing vessel(s)" including information of the above condition assessment report and urge for their follow up action on their intention and decision to either :-

- (a) seek replacement; or
- (b) outsource the service without replacement; or
- (c) dispose the aging vessel at an agreed date without replacement. GNCS will follow up action in liaison with GF user department, such as preparing feasibility study, funding arrangement, project specification, tendering of contract and awarding contract, building new vessel and inspection/testing and delivery as per procedure (procedural flow chart) approved by FSTB.

4.2. New Vessel

GF user departments will be required to submit full justifications for acquiring new vessel(s) for their operational needs to GNCS with the support endorsement of their respective

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Bureau. GNCS will follow up necessary action in liaison with GF user department on the intended procurement of new vessels. MS is required to give a near-estimate for the average annual maintenance cost/expenditure as baseline budget (the mean value) for the new vessel by making reference to the expenditure/cost of a similar class/type of an existing vessel with appropriate adjustment and justification. Similarly, FOS/ASS/GF user department, as appropriate, will be required to prepare estimate of fuel and luboil consumption and expenditure. GNCS will base on these figures to advise user department for appropriate funding arrangement.

4.3 Register an Existing Vessel from unknown source or direct purchase requested by a User Department

On occasions, a user department may request GFD to register an existing vessel from unknown source or direct purchase. GFD would have to request the user department to provide necessary builder information and building specification, safety and inspection document of the concerned vessel. All these documentary evidence should have satisfied comparable standards for a local vessel as required under local legislation for the purpose of a working barge, pontoon, work boat or a passenger launch appropriate to the number of carrying capacity for working crew or passengers. In addition, documentary evidence of approval (from directorate officer of concerned department) of usage, operational profile and funding for the recurrent maintenance cost of the concerned vessel from relevant department and bureau are to be submitted to SCOGC for consideration and approval. User department must be notified the necessity of inspection of the vessel in the dockyard prior to registration formality to confirm safety requirements are met and decide whether initial maintenance programme is required for the vessel before it is recommended fit for commissioning and registration.

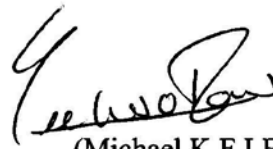
5. As a general guidance, the range of the percentage of average annual maintenance budget cost (usually expressed as a percentage of the vessel's asset cost) for a new or replacement vessel would be :-

- (a) around 2 ~ 4 % for inflatable, dinghies, LCSD's craft largely non-mechanized craft (INFL, DING and LCSN classes) at 24 months RO interval;
- (b) around 4 ~ 8 % for steel lighters (LGTR class) at 18 ~ 24 months RO interval;
- (c) around 5 ~ 12 % for mechanized vessels (MINF, LCSM, MIMC and MECV classes) of rubber/plastic, GRP, aluminum or steel hull at 12 ~ 24 months RO interval;
- (d) around 7 ~ 14 % for high speed craft (HSCL and HSCM classes) of GRP or aluminum hull at 12~ 24 months RO interval;

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and the above percentages are varying/depending on the parameters such as vessel's size, propulsion power, any peculiar type of propulsion engine(s) fitted, sophistication, its operating profile (i.e. daily running hours of propulsion system and shift arrangement (daily on-duty hours) and RO maintenance interval/period. In future when experience is gained, we may systematically compute or estimate the percentage figure based on these parameters.

6. Concerned Section Heads of GFD are required to make progress report on subject issue in the routine SCOGC meetings so that rolling plan could be updated annually or as required.



(Michael K F LEE)

General Manager, Government Dockyard

Date: 28 May 2008

c.c. File ref.: MDGRGF 1-50/ 4 (1)

A sample of maintenance log

AC001 (A) (06/98)

Government Dockyard - Marine Department

13-Dec-2017 08:43:01

Job Sheet (Audit)

Page 1 of 1

Vessel / GD Equipment : MD059 MD Launch MD59

Work Order Number : 390790



Job Type : RUNN Running Repair (RU)

Extra / Task :

Nature : MA Maintenance (PM / RU)

Team / MRC : T3 Team 3 - Dir. Vsl. Maint. (S/H 120 & 121)

GF220 No. : ME003502

Requester : T3-EI CHENG Kwok-kei

Contractor Code : KWONG SANG

Workshop :

Currency : HKD

Tender / Quotation No : TG001017

Total Cost : 769.00

P. O. Number : 310483



Activity	Trade	Trade Desc	Cost Code/ Chargeable	Warrant No/ User Code	Activity Amount
10	ELEC	Electrical (EL)	JO B34695001	B346950016603	\$ 769.00

1) Section / Part : C

Section / Part Description :

Miscellaneous Electrical Repair Items

Item No : C9

Item Description :

Miscellaneous Electrical Repair Items

Job Description :

Check and repair the starting circuit c/w fuel solenoid, battery switch and cables for one auxiliary engine. Renew the defective items and re-insulate the cables as found.

Fix Rate : \$ 769.00 x Qty : 1.00 = \$ 769.00

Refer A&C Form No. : 7929

*** End of Job Sheet ***

	Name	Date
Requester	CHENG Kwok-kei	30-Oct-2017
Recommended by	CHENG Kwok-kei	30-Oct-2017
Confirmed Recommend By	CHENG Kwok-kei	30-Oct-2017
Approved by	LEE Kin-chung (DO/H)	30-Oct-2017

CONDITIONS (Applicable to contract job only)

1. This work is genuinely urgent. 2. This work is required to be undertaken by MD Approved Contractors. 3. This price as quoted by MD Approved Contractor, is considered fair and reasonable. I certify that the above conditions have been observed.

CERTIFICATION (For Official use)

Certified that the services have been carried out to my satisfaction and the material specified on the issue Voucher(s) have been incorporated in this job. Material not required for the job and unserviceable items salvaged from the job have been returned to stores on Return Vouchers(s). Payment is in order.

Completion	14-Nov-2017
Labour Completed by	T3-EI
Certified for Payment	T3-DO/H
Completed (Overall) by	SCHEDULER

For Contractor Jobs:
Original - To be attached to Contractor invoice.
Duplicate - Retained in vessel's maintenance file.
Triplicate - Retained in file for auditing purpose.

For Workshop Jobs:
Original - Retained in vessel's maintenance file.
Duplicate - Retained in file for auditing purpose.

Electronic Form - No Signature Required

EVALUATION OF TENDERS

370. (a) Tender evaluation should normally be conducted by a TAP consisting of not less than two persons. To safeguard the integrity of government procurement exercises, the TAP should comprise only government officials. Departments should ensure that only properly qualified persons are appointed to assess technical submissions in their tender exercises. Where practicable, tender documents should be drawn up to allow assessment to be made without the TAP knowing the identity of the tenderers. For works tenders, departments should also follow the guidelines laid down in the relevant DEVB TC(W) currently in force issued by the DEVB.
- (b) The TAP shall examine tenders against the technical specifications, essential requirements, terms and conditions laid down in the notices of tender invitations and tender documents to determine whether they are fully conforming. In recommending a tender for acceptance, the department should also take into account the following in the evaluation, as appropriate —
- (i) technical and financial capability of the tenderers and their past performance records. For works contracts, the guidelines laid down in the relevant DEVB TC(W) currently in force issued by the DEVB shall be followed. For service contracts of a value exceeding \$15 million, or contracts for supply of stores which require also the provision of services of a value exceeding \$15 million, financial vetting shall be conducted of a tenderer who is being considered for the award of the contract in order to ensure that the tenderer is financially capable of fulfilling the contract requirements (see Appendix III(H));
 - (ii) timely delivery or completion;
 - (iii) compatibility with existing or planned purchases;
 - (iv) after sale support and service including maintenance and spare parts provision, warranty and/or guarantees;
 - (v) running and maintenance costs; and
 - (vi) fair market prices.

Requirements (ii)-(iv), where applicable, should be included in the tender specifications. In respect of requirement (v), departments should ask tenderers to provide an estimate of running and maintenance costs for the equipment or system supplied to enable a fair price comparison to be made.

- (c) Where prior approval has been given for the use of a marking scheme in the evaluation of tenders, TAPs shall assess the tenders according to the criteria previously endorsed by the relevant tender board or DTC. To avoid any undue influence, members of TAPs are encouraged to score the tenders individually in accordance with the marking scheme. Normally, the tender which attains the passing marks (if any) and the highest overall score under the marking scheme should be recommended. The methods for evaluating technical and price proposals are set out at Appendix III(G).
- (d) In normal circumstances, departments shall determine the ranking of the tenders received according to the original tender prices or the adjusted tender prices made in accordance with SPR 365(i), or the overall scores they have attained when a marking scheme is used in tender evaluation. Where price negotiations are undertaken under SPR 385, departments shall use the negotiated prices to determine the ranking of the tenders or their price scores. Departments may only consider other proposals on discounts by a tenderer if his tender is recommended for acceptance.
- (e) Any negotiation with a tenderer shall be undertaken in accordance with SPR 385. Such negotiations may also be used to seek resolution of any qualification or counterproposal put forward by a tenderer and if the qualification seeks to reduce the tenderer's risk or to construct payment terms which are more to his advantage, departments should seek a corresponding adjustment in the tender price before formally recommending the tender for acceptance.
- (f) In recommending the acceptance of a tender to a tender board or DTC, departments shall have value for money in mind. If the tendered sums are very close or if the contract to be awarded involves payments over a number of years, e.g. interim payments to the contractor, the department shall compare the tenders by discounting future payments to obtain the present value. The present value of the tendered sum should prevail in determining the ranking of tenders. In assessing the present values of tenders, departments may approach the Management Accounting Division (MA Division) of Financial Services and the Treasury Bureau (The Treasury Branch) (FSTB) for advice.

- (g) If none of the tenders received is fully conforming with the technical specifications, essential requirements, terms and conditions laid down in the tender document and/or attains the passing marks (if any) of the marking scheme, departments shall cancel the tender exercise (see SPR 380(e)) and re-tender with revised specifications, essential requirements, terms and conditions, where applicable. If exceptionally departments wish to recommend a non-conforming tender, they shall state clearly in the tender report any deviation of the recommended tender from the specifications, essential requirements, terms and conditions laid down in the tender document, the assessment criteria under the marking scheme, and the reasons for so recommending. As a general practice, departments should clear their tender recommendations with the D of J, or in the case of works tenders, LAD(W)/DEVB if they wish to recommend a non-conforming tender. A copy of the relevant legal advice should be attached to the tender report for relevant tender board or DTC's reference.

TENDER REPORTS

375. (a) Departments shall prepare a tender report containing a clear recommendation in the standard format as at Appendix III(I). Tender reports for consideration by the CTB and subsidiary tender boards must be signed or endorsed by the Head of Department concerned or his representative at directorate level. Tender reports for consideration by DTCs should be signed by the chairman of TAP of the procuring department. For submissions to the tender boards, the originals of the tenders received should be submitted together with the tender report to the tender board as follows —
- (i) when the ranking of tenders is based on the tendered prices, i.e. no marking scheme is used in tender evaluation —
- if the recommended tender is the lowest (highest for revenue contracts), only the three lowest (highest) tenders should be submitted. If the recommended tender is not the lowest (highest for revenue contracts), the lower (higher) tenders, the recommended tender and the next two higher (lower) tenders should be submitted; or
- (ii) when the ranking of tenders is based on the overall scores, i.e. a marking scheme is used in tender evaluation —
- if the recommended tender is the highest overall scorer, only the tenders of the three highest overall scorers should be submitted. If the recommended tender is not the highest overall scorer, the tenders of the higher scorers, the recommended tender and the tenders of the next two lower overall scorers should be submitted.

Annex A – Tender Evaluation

Without prejudice and in addition to the powers of the Government under the Tender Documents to disqualify a Tenderer, tenders submitted in response to this Invitation to Tender will be evaluated in the following manner:

(a) Price Assessment

- (i) The tenders will be checked to identify the Tenderer which has submitted the lowest Total Purchase Price among all Tenderers.
- (ii) The Tenderer which has submitted the lowest Total Purchase Price will proceed to the assessment mentioned in Paragraphs (b) and (c) below.

(b) Completeness Check

A completeness check will be conducted by checking whether the Tenderer's tender has been submitted in accordance with the requirements stipulated in the Tender Documents. If a Tenderer fails to submit any of the documents stipulated in Paragraph (a) of Annex B to this Part (Information / Documents to be Submitted for Tender Evaluation) before the Tender Closing Date, its tender **will not be considered further**.

(c) Assessment of Compliance with Essential Requirements

- (i) A tender will be checked for its compliance with the Essential Requirements as detailed in the Tender Documents.
- (ii) Any tender which fails to meet any of the Essential Requirements (viz., those set out in Annex C to this Part, those identified as such in Part VII and in any other parts of the Tender Documents) **will not be considered further**.
- (iii) Besides the Essential Requirements, the Government may also exercise all or any of its rights and powers to not consider a Tenderer's tender further under all or any of the applicable provision of the Tender Documents. Where the Government does so under any such applicable provision, the Tenderer's tender will not be considered further.

Award

The Tenderer which has quoted the lowest Total Purchase Price amongst all Tenderers, and which has passed the assessment mentioned in Paragraphs (b) and (c) above will normally be recommended for acceptance. If the Tenderer has failed the assessment mentioned in Paragraph (b) or (c) above, the next Tenderer who has quoted the lowest Total Purchase Price will undergo the assessment mentioned in Paragraphs (b) and (c) above. This shall be done until a recommended Tenderer is identified (if any).

Annex A – Tender Evaluation

Without prejudice and in addition to the powers of the Government under the Tender Documents to disqualify a Tenderer, tenders submitted in response to this Invitation to Tender will be evaluated in the following manner:

Stage 1 - Price Assessment

- 1) The tenders will be checked to identify the Tenderer which has submitted the lowest Total Purchase Price among all Tenderers.
- 2) The Tenderer which has submitted the lowest Total Purchase Price will proceed to Stage 2 and Stage 3.

Stage 2 – Completeness Check for Technical Proposal and Statement of Compliance Check

- 1) The Tenderer's Technical Proposal will be checked for its completeness as per Annex B to this Part (Checklist for the Completeness of Documents Submitted for Tender Evaluation).
- 2) In addition, the Tenderer will be checked whether it has confirmed in Schedule 5 compliance with all requirements in Part VII (regardless of whether they are labelled as [E] or not). If the Tenderer has indicated non-compliance with any such requirements, the Tenderer will be disqualified (subject to any clarification which may be made in the manner as mentioned in Clause 5.3 of the Conditions of Tender).
- 3) Even if the Tenderer has indicated compliance with all requirements in Part VII, the Tenderer may still be disqualified in the manner specified in Clause 17.7 of the Conditions of Tender.
- 4) If the Tenderer has passed the completeness check as mentioned above, has confirmed compliance with all requirements in Schedule 5 (after all clarification if any), and there is no counter-proposal or other information which could lead to its disqualification under Clause 17.7 of the Conditions of Tender, it will proceed to Stage 3 below. If otherwise, its tender will not be considered further.

Stage 3 – Assessment of Compliance with Essential Requirements

- 1) The Tenderer which has passed Stage 1 will be checked to verify its compliance with all the Essential Requirements (viz., those set out in Annex C to this Part, and those identified as such in Part VII).
- 2) If the Tenderer fails to meet any of the Essential Requirements, its tender will not be considered further.

Award

- 1) The Tenderer which has quoted the lowest Total Purchase Price amongst all Tenderers, and which has passed Stages 2 and 3 will be identified as the successful Tenderer and will normally be recommended for acceptance. If the Tenderer has failed Stage 2 or Stage 3, the next Tenderer who has quoted the lowest Total Purchase Price will undergo Stages 2 and 3. This shall be done until a successful Tenderer is identified (if any).

Investigation Report

of Police Vessel Flooding on 30 June 2017

1. Brief of the Accident

On 30 June 2017, the Police vessel was found submerged at the aft part at

base during Police stand-by duties and the case was reported to Maintenance Section (MS) of Government Dockyard (GD).

and was later towed back to GD for urgent slipping-on arrangement the same day. The following picture shows the flooded condition of the vessel while the accident happened.



The Accident First Report (**Appendix 1**) (according to the requirement of GFDC 16/2013) was submitted to GD pending the detailed investigation of the case. The MS subsequently contacted with of Police for following up their submission of the detailed investigation of the accident by email on 20 July 2017 and 8 Sep 2017.

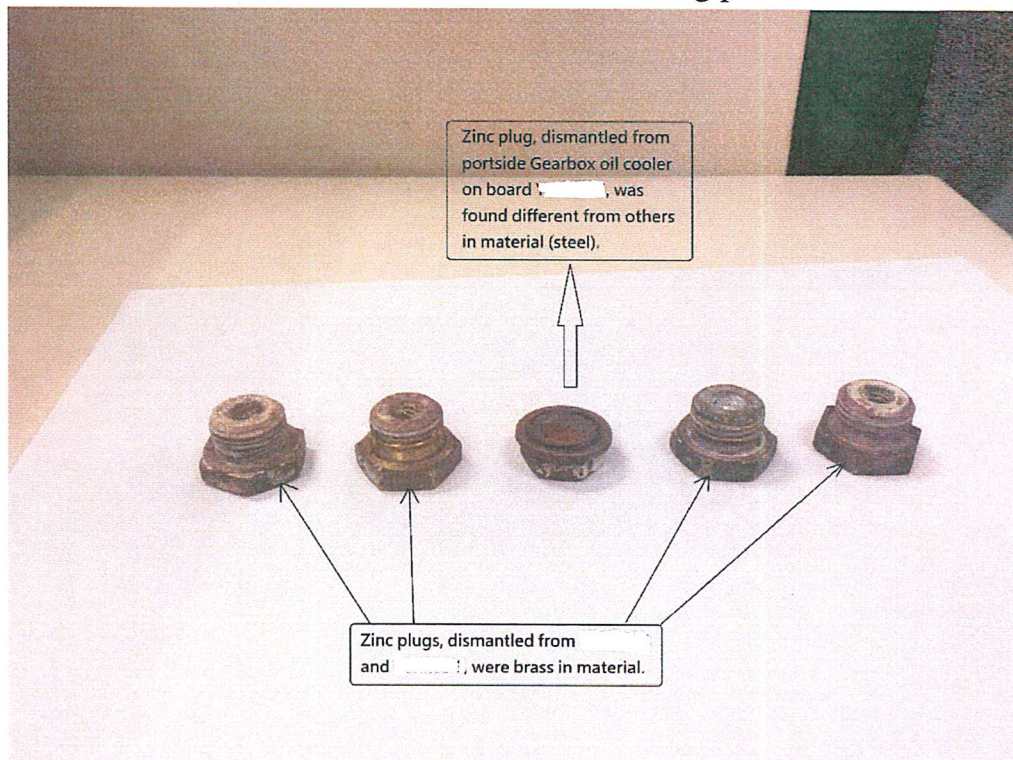
2. Maintenance Background

According to the maintenance record, the vessel had been arranged for Preventive Service in GD during 27 Mar 2017 to 2 May 2017, where both engines were removed out for servicing, outdrives were dismantled for repair and hull & fenders were maintained as required, etc. All the items on the vessel inspection check-list (**Appendix 2**) were checked,

inspected and / or function tested in order, including the engine room bilge pumps, level sensors and control systems, etc. prior to returning her to for operation.

3. Analysis on the Root Cause for Water Ingress

After the vessel returned to GD, detailed check and inspection on board the vessel was carried out. It was believed that the failure of the zinc plug of oil cooler of the starboard side propulsion gearbox contributed to the water ingress in the engine compartment due to heavy corrosion. As the failed plug, the MS had to check the same plug of oil cooler of the port side propulsion gearbox of and compared it with the plugs of her sister vessels, i.e. and , as shown in following picture.



4. Preventive measures

From the above case review, it was concluded that the same or similar plugs on oil coolers of gearboxes on board all concerned government vessels should be specified and included in the maintenance specification (including material requirement) as well as the chemical cleaning and hydraulic test for the tube stacks of the oil cooler from now onwards as a preventive measures.

5. Engine Room Bilge System

The engine compartment of was equipped with two bilge switches (the primary bilge switch and secondary bilge switch), electrical bilge pump and hand bilge pump. The primary bilge switch would automatically activate the electrical bilge pump to pump out the bilge water in the engine compartment if the switch detects the bilge water level and the electrical bilge pump is on 'AUTO' mode. Certainly, the electrical bilge pump can also be operated manually when the vessel operator deems necessary. The secondary bilge switch will activate the alarm with light and sound when the bilge water level in engine compartment gets higher. **Appendix 3** and **Appendix 4** are the illustration and diagram of the bilge system in engine compartment on board for easy reference.

6. Old Parts Function Test

To investigate whether the bilge switch, bilge pump and the bilge light and sound alarms could be a cause to the flooding of , and as a preventive measure on her sister vessels if deem necessary. On 7 September 2017, MS conducted a function test on the two bilge switches, and the electrical bilge pump which were removed from during the subsequent recovery repair of the vessel in GD, by connecting them to the vessel's electrical cable and control panel. The attached video attached below shows that both the bilge switches and electrical bilge pump were in normal working condition. Meanwhile, the engine compartment bilge alarm, i.e. sound and light, were automatically activated during the test where the water level was detected by the secondary bilge switch.



VID_20170907_170528.mp4

Maintenance Section
Government Dockyard
Marine Department
12 September 2017

ACCIDENT FIRST REPORT (意外報告)

To be first report of accident to, or damage caused by any Government vessel To be treated as URGENT and rendered as soon as possible after the accident and within 24 hours.

(此意外報告須於意外發生二十四小時內填寫)

From : Commissioner of Police	To : Director of Marine
Ref. :	:
Tel. :	Fax :
Fax :	c.c. :
Date : 2017-07-05	:

Part I Particular of Accident

- 1 Time and date of accident
(意外發生時間及日期) 0645 hours on 2017-06-30
- 2 Position (位置)
- 3 Name of Government Vessel(s) involved
(有關船隻名稱)
- 4 Name and service number of Government Vessel's Coxswain (船長名字和編號)
- 5 Name of any witness(es)
(現場目擊者名字) N/A
- 6 Estimate damage of Government Vessel(s)
(現場政府船隻損毀情況) Ingress of water into engine, steering battery and cockpit compartments.
- 7 Estimate damage of Government Vessel(s)
(其他船隻或物品損毀情況) N/A
- 8 Casualty (傷亡) None
- 9 Brief report of Accident with sketch plan
(意外簡報附位置圖)

On 2017-06-30 at 0645 hours craft were engaged in operational stand by duties. The craft in a high state of readiness were ready to be deployed to support the operation. was lying alongside when at 0645 hours she was found to have sustained serious flooding of the engine, battery, steering and cockpit compartments with the stern of the craft submerged. Actions were immediately initiated to pump out water from the flooded compartments of . When the water had been expelled was towed back to GD arriving at 1050 hours awaiting inspection from the Mechanical Inspectors of the Maintenance Section.

10

Signature

(簽署)

Date _____

(日期)

(姓名和職級)

Section /

Department

(組別 / 部門)

Part II

Craft were standing by at the [redacted] in a state of immediate readiness for a security operation. [redacted] was found to be flooded in a semi submerged condition at 0645 hours on 2017-06-30 whilst berthed at [redacted]

Base. The cause of the flooding remains to be investigated but water ingressed into the boat engine, battery, steering and cockpit compartments causing the stern of to be partially submerged.

The flooded compartments of were then pumped out. was towed back to the Government Dockyard at 1050 hours to be hoisted up and inspected for the cause of the flooding.

Signature

Date _____

Section / Department : Hong Kong Police

Part III Comments by Section / Unit Head

The craft are ageing vessels in use since 2004. It was fortunate that the water ingress was spotted before the had taken on more water, which would have resulted in her sinking completely. The causes of the flooding of are unknown and will need to be investigated. As the Boat fleet reaches the end of its operational life it is essential that all inspections and routine maintenance are carefully conducted to ensure the watertight integrity of the vessels are maintained in order for the to remain viable.

Signature : _____

Name : _____

Date : 2017-07-05

Post : _____

Section / Department : Hong Kong Police



Government Fleet Division - Government Dockyard

Vessel Name:

User Department:

Last Inspection: 6 Jan 2016

Date of Inspection: 27 March to 2 May 2017

	Duration : 12 Months	Yes	Inspected by
A	Hull and Deck Fittings		
1.	Hull External Inspection	<input checked="" type="checkbox"/>	
2.	Hull Internal Inspection (including void space whenever readily accessible)	<input checked="" type="checkbox"/>	
3.	Coating on Hull and Decks (External)	<input checked="" type="checkbox"/>	
4.	Closing Appliances on Deck	<input checked="" type="checkbox"/>	
5.	Bilge Piping	<input checked="" type="checkbox"/>	
6.	Fendering System	<input checked="" type="checkbox"/>	
7.	Watertight Bulkhead Visual Inspection (whenever readily accessible without removal of obstructions)	<input checked="" type="checkbox"/>	
B	Machinery Installation		
1.	Main Engines Servicing (i.e. according to manufacturer's manual) <i>Remove for engine check servicing and refit.</i>	<input checked="" type="checkbox"/>	
2.	Engine Exhaust Piping System	<input checked="" type="checkbox"/>	
3.	Fuel Oil Delivery and Piping System(s)	<input checked="" type="checkbox"/>	
4.	Filter cartridges / Elements	<input checked="" type="checkbox"/>	
5.	Heat-exchangers and after coolers (open-up) <i>as mentioned in above B.1.</i>	<input checked="" type="checkbox"/>	
6.	Analysis Engine L.O. sample	<input checked="" type="checkbox"/>	
7.	Engine mountings and vibration dampers	<input checked="" type="checkbox"/>	

8.	Gearboxes Servicing <i>(change oil & clean filter; where tube stack of oil coolers cleaned / hyd. test for leak)</i>	<input checked="" type="checkbox"/>	
9.	Bilge Hand Pump	<input checked="" type="checkbox"/>	
10.	Portable Fire Extinguishers <i>serviced by MFR</i>	<input checked="" type="checkbox"/>	
11.	Outdrives Servicing (for)	<input checked="" type="checkbox"/>	
12.	Tailshafts and Propellers (for)	<input checked="" type="checkbox"/>	
13.	Rudders and Rudder Stocks	<input checked="" type="checkbox"/>	
14.	Fire Smothering System of Engine Room <i>CO2 Bottle examination by H&M; control linkages & gas pipe by W/C</i>	<input checked="" type="checkbox"/>	
15.	Sea Water piping system, including Valve, Strainer and Piping of Auxiliary Engines <i>Propulsion</i>	<input checked="" type="checkbox"/>	
16.	Steering System <i>verified in sea trial d.d. 2/5/17</i>	<input checked="" type="checkbox"/>	
17.	Watertight Bulkhead Visual Inspection (whenever readily accessible without removal of obstructions) <i>for penetration pieces of mech. means / etc.</i>	<input checked="" type="checkbox"/>	
C	Electrical Installation		
1.	Navigation Lights and Sound System	<input checked="" type="checkbox"/>	
2.	Insulation Test of Electrical Circuits	<input checked="" type="checkbox"/>	
3.	Meters on Main Switch Board	<input checked="" type="checkbox"/>	
4.	Main Engine Control System	<input checked="" type="checkbox"/>	
5.	Ventilation Fans and Control System	<input checked="" type="checkbox"/>	
6.	Bilge Pumps, Level Sensors and Control System	<input checked="" type="checkbox"/>	
7.	Gearboxes Control System	<input checked="" type="checkbox"/>	
8.	Fire Alarm Test	<input checked="" type="checkbox"/>	

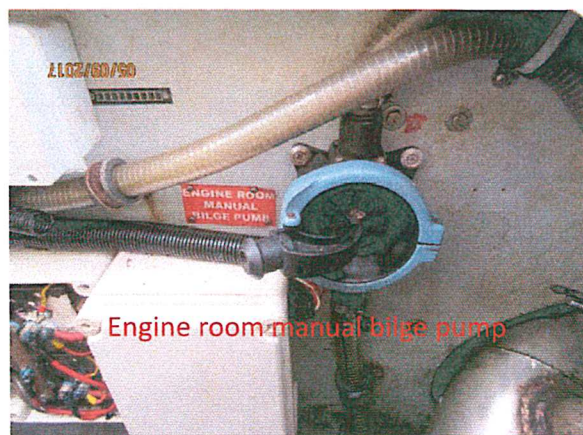
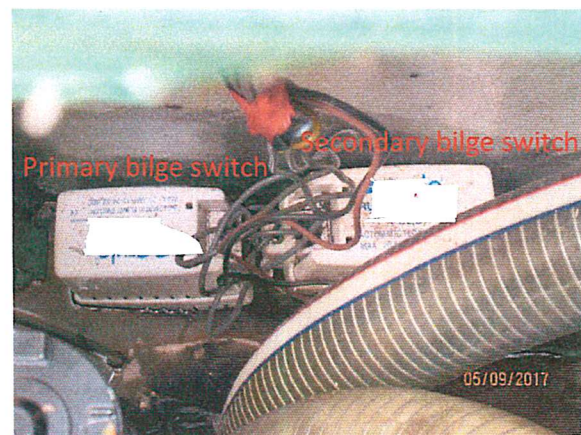
9.	Remove batteries from vessel to check condition and re-install on board.	<input checked="" type="checkbox"/>	
10.	Watertight Bulkhead Visual Inspection (whenever readily accessible without removal of obstructions)	<input checked="" type="checkbox"/>	

/ DOM

/ MM(E)

/ SMM

11 SEP 2017



Engine room manual bilge pump

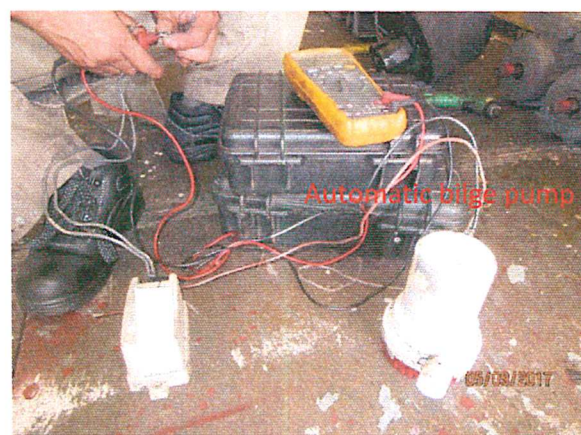
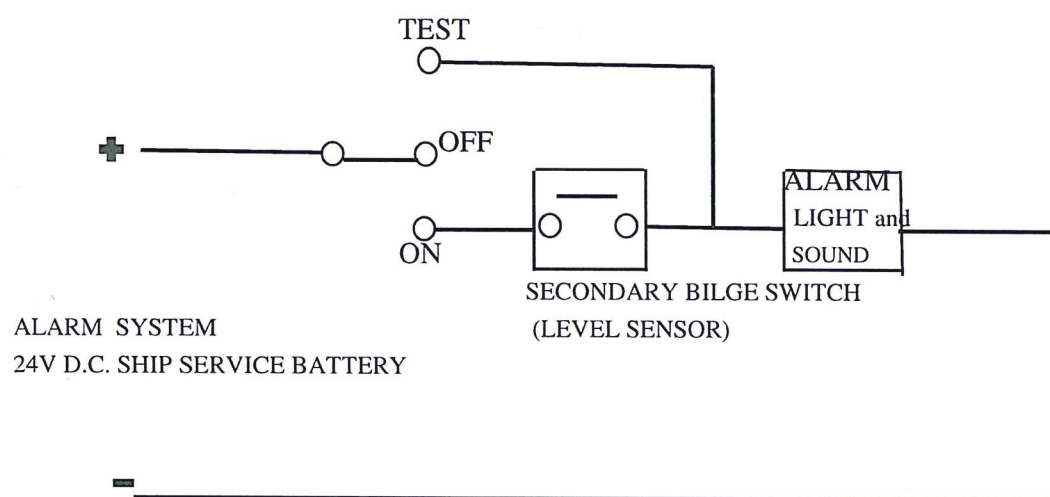
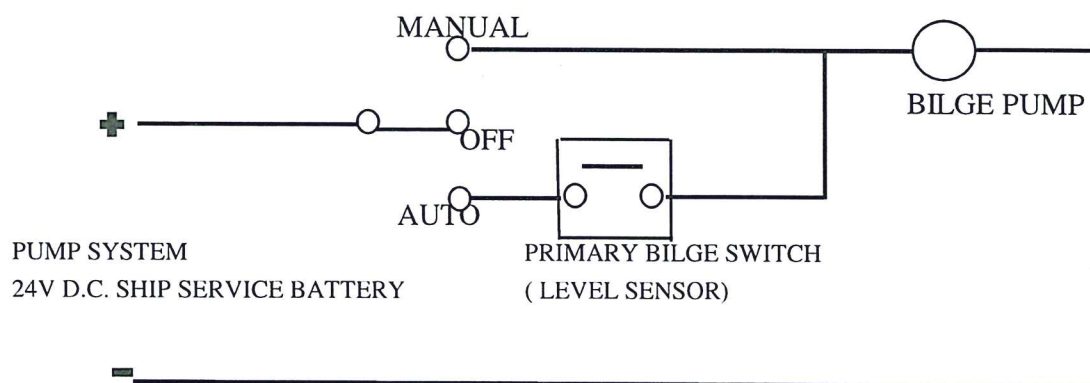


Illustration of bilge system in engine room of



FOR ENGINE ROOM AND RUDDER CABIN

BILGE SYSTEM