**BWTS OPERATION CHECKLIST**

The sequences of events mentioned below have to be followed in a chronological order for putting the BWTS plant into operation.

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| **Vessel:** |  |  | **Date/Time:** |  |
| **Port / Location:** |  |  | | |

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| Following is the sequence of operations to be undertaken for operating the BWTS | | Tick () |
| 1. | Check the HMI panel of the SGG for any alarms that need to be attended. |  |
| 2. | Open the control air supply for the SGG unit. |  |
| 3. | Check the oil level in the combustion air blowers and the condition of the transmission belts. |  |
| 4. | Ensure that the overboard valve on the cooling water line of the BWTS is kept open. |  |
| 5. | Check that the gas oil line to and from the SGG fuel pump have been correctly lined up. |  |
| 6. | Select the combustion air blower needed for the operation, under “SGG Overview” Sub-menu. |  |
| 7. | Check the Permissives for System to be ready under “SGG Overview” Sub-menu, and confirm system is ready for starting. |  |
| 8. | Start the cooling water pump for the BWTS and maintain a pressure of 0.1 MPa at Pressure Gauge PG-104 by adjusting the valve BV-109. |  |
| 9. | Adjust the cooling water pressure to 0.01 MPa at pressure gauge PG-105 by adjusting the valve BV-110. |  |
| 10. | Inspect the SGG cooling water pump and the SGG unit for any water leaks. |  |
| 11. | Start the SGG in the “SGG Overview” Sub-menu. |  |
| 11. | Check the sequence of purging, ignition and firing. |  |
| 12. | Check and Ensure the fuel at the burner inlet of Burner No.1 is 0.6 MPa.. Check the condition of the flame, and ensure the fuel and air mixture is adequate to sustain the flame. |  |
| 13. | Check the operational blower for any signs of vibration, and monitor the current drawn by the blower |  |
| 14. | Under “Treatment Sub-menu, select the system capacity to 50%, if only one ballast pump is to be used or if only Aft-peak ballast tank is to be treated. |  |
| 15. | Check the Oxygen content, and ensure the system goes on Stand-by once the Oxygen content dips below 2.5%. |  |
| 16. | Under “Treatment” Sub-menu, select “Warm-Up” mode, once Oxygen content is 0.5%. |  |
| 17. | Start the Ballast pump if the treatment is for ballast water in the Ballast tanks or the Fire and G.S. Pump if the treatment is for ballast water in the Aft Peak tank. |  |
| 18. | After running on Warm-up for 5 minutes, select Port/Stbd. venturi and press Load/Treat Ballast |  |
| 19. | Check and ensure that the position of valve BV-501 is maintained between 25-27% in open state. |  |

**Notes:** The checklist is only applicable to the maker, Mitsubishi KK Ltd. BWTS.

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| **Duty Engineer:** |  |  | **Chief Engineer:** |  |
| **Signature:** |  |  | **Signature:** |  |