

お客様各位

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富士電機 船舶用排ガス浄化システム(EGCS)

長時間スクラバ停止時の注意事項

拝啓 貴社益々ご清栄のこととお慶び申し上げます。

平素より、船舶用排ガス浄化システム(EGCS)をご愛顧賜り、厚く御礼申し上げます。

諸般の事情によりスクラバを長期間使用停止する場合のガイドラインを作成しましたので、下記の通りご 連絡いたします。

尚、これらの対策は 1 か月程度のスクラバ停止に伴う措置であり、それ以上の期間での停止の場合は弊社 までご連絡いただきます様、お願いいたします。

敬具



GUIDELINE FOR Prolonged Non-Operation

The following guideline is for prolonging non-operation of scrubber for one month:

<STOP SYSTEM>

1. GAS ANALYZER

- 1. After stop system (**exhaust gas = BYPASS and wash water pump = STOP**), to be replaced water in the drain water tank newly and continue to run about 12 hours for internal cleaning.
- 2. Dispose all water in the drain water tank and put empty drain water tank and again to run about 12 hours for drainage purpose in the gas analyzer.
- 3. Switch off power source. Then to be disconnect any codes and cable from power box.
- 4. Remove probe box and sampling probe. Then to be cleaned by air blowing and waste rags.
- 5. Insert blind flange for exhaust gas line.
- 6. Finally to be disconnected calibration gas for SO2 and CO2 with closed.

2. WATER QUALITY METER

- 1. After stop the system, to be flushed by fresh water and disposed water drain.
- 2. Close ALL valves related water quality meter.
- 3. Switch off power source.
- 4. Remove turbidity sensor and PAH sensor. Then to be cleaned fresh water with waste rages. Turbidity sensor and PAH sensor to be landed for calibration purpose for another vessel.
- 5. Remove pH sensor and to be landed it with spare pH sensor to shore.

<PERIODICAL>

3. SCRUBBER UNIT

1. Flush wash water pipes and nozzles in use wash water pump.



Purpose: Cleaning of wash water pipes and wash nozzles **Interval**: every week and 30 minutes per time

Should be checked "FULL OPEN" for valves of MV-1, MV-2 and overboard before wash water pump start.

4. DAMPER

1. Operate manually for exhaust valve damper when stopped each engine.

Purpose: Preventive of stick (Exercise purpose)

Interval: monthly and few times with open and close

% To maintain the condition of the damper, continue to supply control air to the damper.

5. AIR SEAL FAN

Operate continuous for air seal of damper with air supply Purpose: Preventive of gas flow to scrubber side Interval: continuous

6. CONTROL PANEL

- 1. Refer to Appendix (1) "Control panel_MCCB_Switching point in the panel" and turn off the Corresponding breakers (MCCB1 and MCCB3) in the control panel.
- 2. Stop recording the measurement log data of EGCS.

7. Other

- 1. When restarting the system, inspect each device by service engineer if possible before starting up.
- 2. Replace all consumables and replacement parts of each device that have passed the replacement cycle at the time of restarting.
- 3. When the power of the device is turned off, trigger an alarm on the control panel.
- 4. Prevent analyzer from moisture, dust and unforeseen situation, please protect them with a flame-retardant sheet.
- 5. Please note that we are not able to guarantee for such a long time suspension of EGCS.