



# FORESIGHT



I would sincerely like to deeply appreciate all those who have demonstrated high standards in the execution of their duties. Rules, regulations, appraisals, incentives, manuals and procedures, etc. prove to have a limited scope in determining the quality of performance if, as an individual one does not have the intrinsic quality of being professionally honest in one's line of duty.

With contribution from you all, Goodwood has enjoyed another successful year.

Wishing you and the Ships Company and families Greetings of the Season and best wishes for the New Year 2020.

**Capt. A. R. Sabnis**

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# Exhaust Gas Cleaning System (EGCS) Malfunction Contingency Measures

## Introduction

The EGCS fitted onboard fleet vessels is an open loop scrubber system comprising of a patented arrangement of spraying nozzles designed for washing sulphur dioxide out of the exhaust gases from engines/boilers running with heavy fuel containing up to 3.5% sulphur. The system is designed with an automatic electronic logging system for the exhaust Emission, wash water discharge and operating parameters, with reference to MEPC.259(68)- Guidelines on Exhaust Gas Cleaning Systems. The EGCS is automatically controlled, with continuous and uninterrupted adjustment of pumps and valves to control the exhaust gas washing level with two main criteria controlling the system: SO<sub>2</sub>/CO<sub>2</sub> level and wash water characteristics (pH, PAH and turbidity). In the event of an EGCS malfunction that leads to an emission exceeding the limit, the EGCS unit has built in alarms to alert the vessel crew.



## System Malfunction

An Exhaust Gas Cleaning System (EGCS) malfunction is any condition that leads to an emission exceedance, with the exception of the short-term temporary emission exceedance cases or an interim indication of ongoing compliance in the case of sensor failure described below.

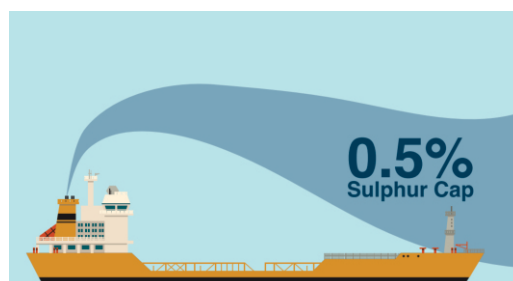
- 1 As soon as possible after evidence of a malfunction (e.g. alarm is triggered), the vessel should take action to identify and remedy the malfunction.
- 2 The vessel should follow the process to identify and remedy the malfunction in the Exhaust Gas Cleaning System – Technical Manual that is approved at the time the EGCS is certified or in other documentation provided by the EGCS manufacturer (troubleshooting checklist and remedial actions).
- 3 An EGCS malfunction event should be included in the EGCS Record Book including the date and time the malfunction began and, if relevant, how it was resolved, the actions taken to resolve it and any necessary follow-up actions.
- 4 A system malfunction that cannot be rectified is regarded as an accidental breakdown. In such a case, the vessel should then change over to MGO if the EGCS cannot be put back into a compliant condition within one hour. If the vessel does not have sufficient amount of MGO on board, a proposed course of action, in order to bunker MGO or carry out repair works, should be communicated to relevant authorities (vessel's Flag Administration, the destination Port authorities and the Coastal State authorities if applicable), in order to bunker MGO or carry out repair works at the earliest opportunity. The authorities need to approve the proposed course of action.

In this regard, the Company should provide following information to the Administration:

1. What action has/is being taken to carry out repairs;
2. What action is being taken in order to bunker MGO, in case EGCS cannot be repaired at the port agreed between Port State, Coastal State and Administration;
3. Information that Class Society has been contacted;
4. Copies of records in the EGCS Record Book showing details of corrective/planned maintenance; service records; details of current failure, etc.

## Short-term Exceedances

A short-term temporary emission exceedance is an exceedance of the applicable Emissions Ratio that may occur due to the EGCS dynamic response when there is a sudden change in the exhaust gas flow rate to the EGCS. There may be a short period during which the measured emission values might indicate that the applicable Emissions Ratio limit has been exceeded. This is a common behaviour of monitoring equipment and EGCS dynamic response (due to a sudden change in exhaust gas flow rate). A time lapse between when the sensor takes its reading and when the unit responds may trigger an alarm from the continuous emission monitoring device even though the EGCS has not malfunctioned. Thus, transitory periods and isolated spikes in the recorded output do not necessarily mean exceedance of emissions and should therefore not be considered as a breach of the requirements.





### Interim Indication of Ongoing Compliance in the case of Sensor Failure

When running on a fuel oil with a constant sulphur content and at constant wash water engine load ratio, all parameters monitored according to the 2015 EGCS Guidelines (MEPC.259(68)) (i.e. Emission Ratio, washwater pH / PAH / turbidity) will be in a certain interrelation, all depending on each other. If one of the parameters changes, some other(s) will necessarily also have to change.

This inter-relation also serves as an indicator of instrumentation malfunction; i.e. if a single sensor signal starts to deviate or even does not display, the effect on the other parameters may indicate whether the change in signal is caused by sensor failure or whether the performance of the EGCS itself has changed. If the other parameters are continuing at the normal levels, it is an indication that there is only an instrumentation malfunction rather than non-compliance with regard to the levels allowed in the exhaust gas and the discharge water.

### In case of Sensor Failure

If a malfunction occurs in the instrumentation for the monitoring of Emission Ratio or discharge water (pH, PAH, Turbidity), the vessel should keep records of interim indication for demonstrating compliance.

The documentation and actions should include (but are not limited to):

- The manual or automatic recording of the data at the time of malfunction may be used to confirm that all other relevant data as recorded for the performance of the EGCS are showing values in line with values prior to the malfunction;
- The vessel should record the sulphur content of the various grades of fuel oil used in the affected fuel oil combustion units from the time when the malfunction started;
- The vessel should log the malfunctioning of the monitoring equipment and record all parameters that might be suitable to indicate compliant operation. This record could serve as an alternative documentation demonstrating compliance until the malfunction is rectified; and
- The monitoring equipment that has suffered a malfunction should be repaired or replaced as soon as practicable.

### Notifications to Relevant Authorities

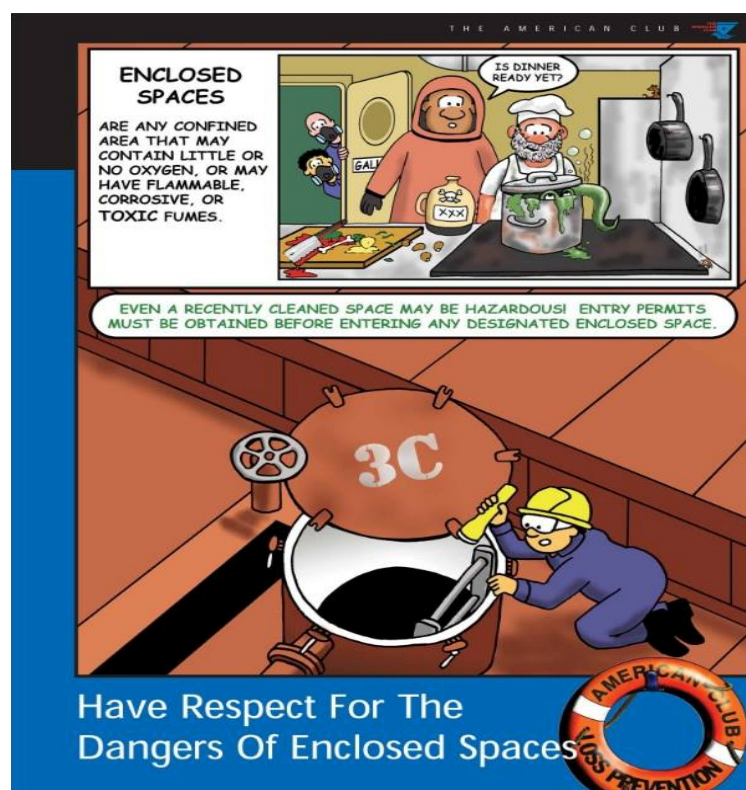
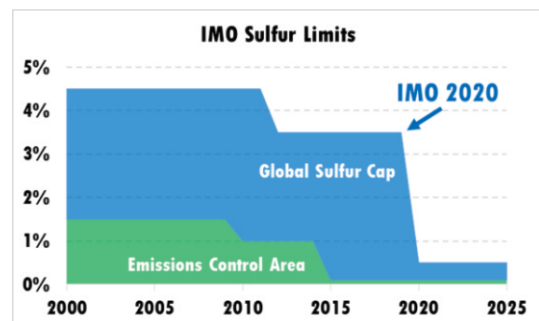
Any EGCS malfunction that lasts more than one hour or repetitive malfunctions should be reported to the Flag and Port State Administrations along with an explanation of the steps taken to address the failure.

At their discretion, the Flag and Port State's Administration could take such information and other relevant circumstances into account to determine the appropriate action to take in the case of an EGCS malfunction, including not taking action.

### Relevant Records

EGCS Record Book is to be maintained on board. This shall be verified and endorsed periodically by attending Class Surveyor.

Contributed by: Sanjeev Bhandari (HSQE Department)



# SELF-TRAINING - SECRET FORMULA FOR SUCCESS

In the today's era of rat race and competition people have forgotten themselves and their ambitions. In the mind lies either the fear of failure or the greed for success. But here the true meaning of success has been forgotten. What is success?

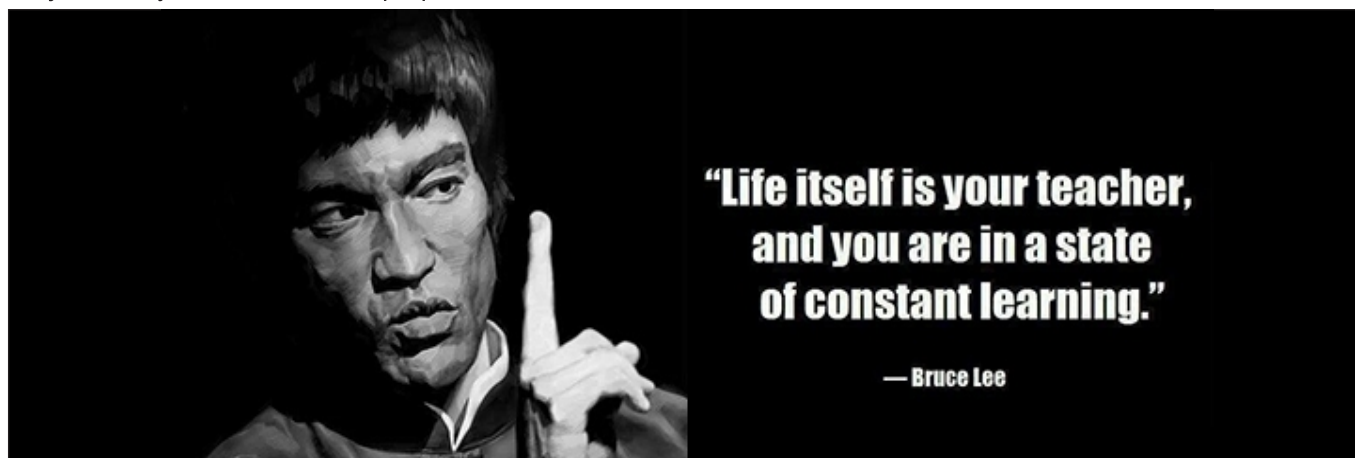
Success is the state of having achieved the desired objectives or goals in life. Success is what makes you feel accomplished, happy and content. It is not about defeating or overcoming the others. Success is not something that you want to be or become.

To be successful one needs to work on himself and have vision to achieve the desired goal. Then work towards achieving the same. Professional success lies in doing the things that one feels good to do and what one is passionate about. To do better, be effective and add value to oneself are the key element in the path of professional success. Failures will be encountered in the path however one should convert them as the most effective teachers as one keeps learning from them.

Training is a part of everyone's life. Training is a process of self-equipment towards skills, knowledge and resources in making one's life purposeful and progressive. Training is what one does to himself leading to self-development. Training will widen the horizon, broaden the perspectives and grasping capacities. Training will cultivate flexibility and resilience in career.

Training and development is an indispensable part of life. It starts from schools and colleges and goes on as one starts to climb the professional ladder. However, it is considered as dispensable by many young boys and girls. It is looked at as a mere "need to do" rather than a "want to do" thing. Over here the purpose of training and its utilization for development starts to lose ground. This eventually results in weak foundations of the career Launchpad.

It is extremely important to find a way in training and learning which works for you. This will eventually lead to greater self-awareness and wisdom which will help in achieving the goal. Immersing yourself in the subject and relating the subject to way of life will lead to a purposeful result.



Some ways of mastering the knowledge during training are as follows:

**Self-discipline** - Without which there will be no beginning

**Keeping an open mind** - Without which there will be no learning.

**Reading and Listening** - source of knowledge

**Teaching others** - Learning is more with sharing and teaching others.

**Taking notes** - Traditional way but always works which will help learning and comprehend better. Listening skills also improve in this method.

**Have a routine** - If there is a routine only then there will be a plan and consistency.

**Have a schedule** - No part of time should go unscheduled

**Prioritizing** - Tasks and training need to be prioritized

**Interaction** - will expose to influences and freedom of choice. Off course it's about making the right choice.

**Innovation** - Will bring about change

Over here the point to be made is unless one educates himself or herself there will be no learning. It is the process of self-education which will master the knowledge and enhance intelligence and perception.

We have various schools, colleges, training centres and the new e-learning platforms which are essential tools of education. It is in such institutions and platforms one gets an idea and guidance on different subjects & training. They are all good references. However, this education will not take effect unless one finds its purpose in life.

I take interviews of candidates at our office, college campuses of junior deck officers and cadets of the marine fraternity. And what really amazes me is that after going through so much of education in the marine field there is so much scarcity of knowledge they have as if all the time was merely passed and eventually ended up being wasted. This is essentially because it's never about what was covered during the process of education but about what was discovered through it. Real education is about relation, creation, comprehension, formulation, enquiry and finally the desired result. It is about feeling and sensing of what is learnt. It's about everything that has become a part of life and way of life.

It is through such training process one will find himself or herself discovering the education. Education will bring wisdom and wisdom will eventually bring success.

**Contributed by : Capt Rohan A. Sabnis (Goodwood Marine Services)**



# Goodwood deliberates on “Deepening its Impact”



**Capt AR Sabnis**

As the shipping industry is gearing up for International Maritime Organisation's (IMO) 2020 Sulphur Limit, Goodwood ship management Pte Ltd felt the need to keep its staff abreast on what to expect and the impact the new rules will bring about in the future. About 200 seafarers, ship owner's representatives, and top management from Singapore and Mumbai attended the conference.

In his welcome address, Capt AR Sabnis, Managing Director of Goodwood Ship Management Pte Ltd spoke on the theme '*Deepening Your Impact*' and its correlation with safety. "At Goodwood, safety is top priority and brings in continuity, in work and changes in developing the right attitude towards work are the keys to success. There are many roadblocks in the path of success but only dedication, hard work and persistency can help one overcome the challenges. Being in an industry that values quality service deliverance the most, one needs to constantly evaluate oneself along with evaluating the processes and the policies."

Capt Sabnis concluded his address with a clarion call for us to regard safety as a personal responsibility that cannot be delegated nor transferred.



**Capt Arthur Martin**



**Svenn Moxnes**

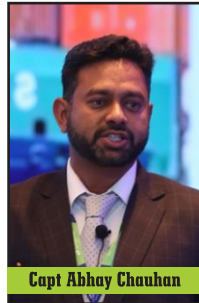


**Simon MacLeod**



**Capt Savraj Mehta**





Capt Abhay Chauhan



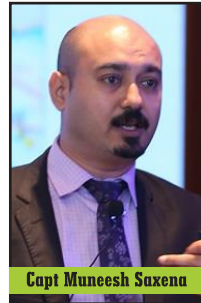
Arnab Ghosh



Suman Singh



Alok Misra



Capt Muneesh Saxena



Praveen Chaudhry



Dr Deepti Mankad



Capt Jupji Hundal



Sanjeev Bhandari



Capt Rahul Karnik

Tanks to receive compliant fuel and challenges that the seafarers will be facing during compliance.

He believes that conferences like these gives an opportunity to exchange ideas, foster a sense of belonging, and reinforce the team. "The healthy progress at Goodwood is the accumulation of the sincere efforts, expertise and professionalism of our teams at sea and ashore. We must always remember that only when all elements of the organisation work in tandem with one another, the optimum and encouraging results are achieved," added Capt Sabnis – who believes that Goodwood's success and reputation, will continue as long as all at Goodwood refuse to deviate from its reliability and quality driven performance. Capt Muneesh Saxena and Capt Jupji Hundal enlightened on Goodwood's performance for the year 2019 in SIRE inspections. They also spoke to the seafarers on commercial issues faced in the industry today and how to deal with them. Capt Savraj Mehta, Chief Commercial Officer, Head of Underwriting, North of England articulated on autonomous ships. He enlightened the audience on evolution of P&I insurance in shipping industry. The seafarers were also updated on Class surveys and their notations by Mr Arnab Ghosh from American Bureau of Shipping. He prepared the seafarers on what to expect from class surveys and how to deal with survey inspections.

Mr James Park of Hiballast discussed issues faced on Ballast Water Treatment System (BWTS) onboard the ships and importance of crew training. Through this session the seafarers were made to identify and discuss best practices to support smooth BWTS operation.

One of the most interactive sessions of the 3-day seminar was an illustrative discussion on Emotional Quotient v/s Intelligence Quotient. Dr Deepti Mankad, Professional Development Trainer & Consultant of MINDSPEAK shared her valuable understandings on how EQ is the new IQ today and its realisation and acceptance. Mr Praveen Chaudhry spoke about the most talked topic of the industry – IMO 2020 complaint fuel v/s Scrubber installation and the pros and cons of both. "Exhaust gas cleaning systems, or scrubbers, are an alternative method of compliance and ever since MARPOL Annex VI came out in 1997, regulation 4 has allowed alternative methods of compliance. The industry can't opt for one-solution-fits-all approach. Retrofit installations are usually more complicated than installing scrubbers on new buildings while installation costs are creeping up at the shipyard as their capacity runs out. Ultimately, some ship-owners are going to take a wait-and-see approach and see what happens to the price spread," opined Mr Chaudhry. An interactive Role-play session acted by ships staff was conducted based on a bridge scenario to make seafarers aware about the

safety lapses that occur on board. Seafarers were given a situation and were told to act and derive a solution for that act; this received positive response from the audience.

Mr Sanjeev Bhandari, HSQEn Department and Capt Arthur Martin, HSQE Manager spoke on Office briefings – A treasured exchange. Additionally, Mr Alok Misra and Mr Bhandari talked on creative approach to efficient trouble shooting on board ships. Chief Engineer RP Sharma and Capt Abhay Chauhan were ship board staff who explained how they conducted the role of safety officer in maintaining safety onboard. Mr Simon Macleod, Deputy Director North of England, discussed several case studies related to Loss Prevention. Day 3 of the conference was devoted to inspirational leadership workshop on ownership, accountability and reliability by Dr Suman Singh, a motivational speaker from coach Guru. "Goodwood as an Organisation wants to see marked improvement in areas of efficiency, attitude, motivation levels, internal communication, leadership and senior management development. With new technologies, changing geographic markets, companies live and die by their people's skills and communication is one of the most important ingredients towards building successful interpersonal relationships," believed Dr Suman Singh. The seafarers were engaged in various role play and team building activities.

Appreciating Goodwood's efforts, **Capt MS Dhaliwal**, Master and working with the company since its inception said, "Goodwood seminars have always been interesting and to the point. It emphasises that it's important to spread our methods of working to the juniors and adopt them at all levels wholeheartedly. Goodwood is a close-knit family and takes care of its employee's needs' and welfare."



Sharing his goodwill about Goodwood, **Mr RP Sharma**, Chief Engineer and sailing with Goodwood since its inception believes that sessions like these offer great take-away for the seafarers who are out at sea to keep themselves abreast with the latest happenings of the industry. His message to his peers was to educate, inspire and transform the junior officers is the only way to progress. The seminar concluded with a gala dinner organised for the seafarers and their families. Each member at Goodwood shared a great love and passion towards their work and life. It is this that makes Goodwood, one of the leading maritime service providers today.





## MANILA SEMINAR NOV 2019

The Annual Goodwood Ship Management Family Get Together was held last 23 Nov 2019 in the Grand Ball Room of DusitThani Hotel Manila with the theme Cinco de Onse.



Filipino officers and crew were briefed on the recent Cargo, Navigation & Job related Safety incidents in the industry. In order to prevent further accidents, they were explained the advantages of detecting & correcting Unsafe Conditions, Stopping Unsafe Acts using the “STOP WORK AUTHORITY procedure”.

A light show performance and acrobatic dance, and with the kids costume parade, a group of Mariachis were entertaining the crowd in between events and ended with awarding of special prizes for the Kids and Families.





# THE BASICS OF MGPS

## Marine Growth Prevention System

The anode in the MGPS system generates ions that spread in the seawater system, producing an antifouling and anti-corrosive layer over the internal sides of sea pipes, heat exchanger (i.e. coolers and condensers), and valves in seawater system, refrigeration systems, AC units, etc.

The three types of alloys used for anodes are:

**Copper Alloyed Anodes:** This is the most used type to prevent marine fouling in piping, strainers, heat exchangers, pumps, etc.

**Aluminium Alloyed Anodes:** This type is used in conjunction with copper alloy anodes to prevent corrosion throughout the ferrous piping system.

**Ferrous Alloyed Anodes:** They are used in conjunction with copper alloy anodes to prevent corrosion throughout Cu/Ni pipework.

## Common MGPS Installation:

The two most common MGPS installations on ships are as follows:

**Anodes Mounted on Sea Chest:** They are commonly installed in new buildings and have a working life such that they can run till the next drydocking. Depends on the SW flow rates.

**Anodes Mounted in strainers in the seawater pipeline:** This MGPS installation has an advantage of replacing the anodes without affecting the seawater supply to ship's system. This is most ideal arrangement for routine maintenance and inspection of anodes wear down.

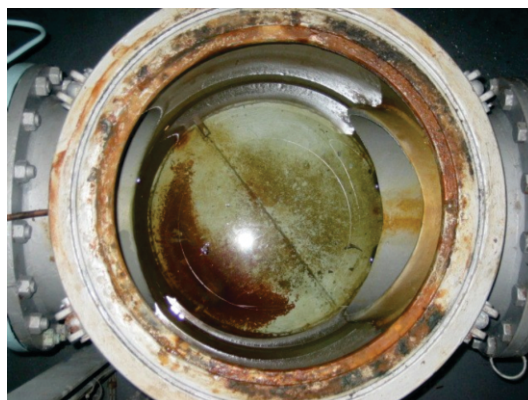
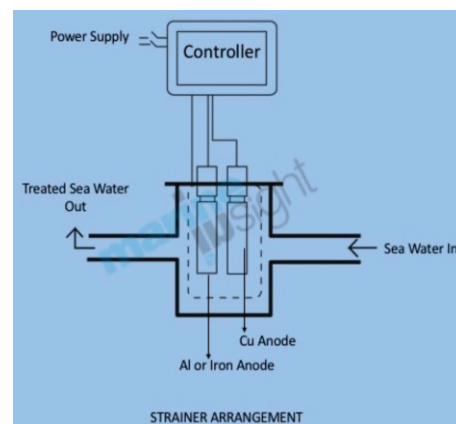
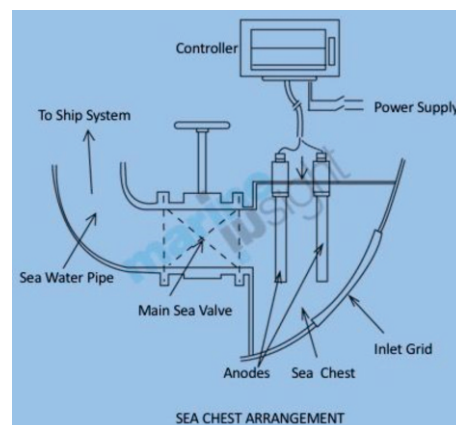
## Advantages of Anti-fouling Systems used on Board Ships

With the MGPS functioning efficiently, the systems using seawater will have following benefits:

- Marine organisms' growth on the surface of pipe or valve will decrease the flow. MGPS helps in maintaining a good seawater circulation
- Eliminating corrosion in the pipelines
- Increasing the cleaning duration of the seawater system which will be very frequent in the absence of MGPS
- Maintain the efficiency of the system and machinery supplied with seawater
- MGPS adds to the energy saving of the ship

## 17 tips to ensure Marine Growth Prevention System (MGPS) always provide the top-notch performance to get the benefits stated above

1. Ensure there are no aluminium pipes or parts attached to the seawater system in which MGPS copper anodes are connected. In a copper-based anode or MGPS systems, the aluminium will have a chemical reaction and act as an anode in the vicinity of copper, leading to severe corrosion of aluminium parts.
2. The current settings for the MGPS should always be maintained as prescribed by the Maker. A high current value setting will lead to a shorter anode life and a lower current setting will increase the anode life.
3. The typical current value on which the majority of MGPS anodes work comes in the range of 0 to 2 amps per anode. This value can be manually adjusted in a range of 0.2 amp steps.
4. When the MGPS is installed on a non-ferrous metal surface (e.g. pipe upstand), the installation flanges of the anodes must be provided with an isolation material to ensure there is no electrical contact between the anode and non-ferrous surface, i.e. between two dissimilar metals.
5. When the MGPS anode assembly is installed on the strainer (the anodes usually are installed on the strainer lid), it is essential to correctly place the anode inside the strainer basket in such a way that the anode surface does not touch any metallic components.





6. Whenever the strainer is opened up for inspection or cleaning by lifting the lid, ensure to disconnect the supply of these anodes and not to damage them when removing the strainer basket lifting bar.
7. When the MGPS anodes are installed in a sea chest, ensure they are not placed in the “dead zones”, i.e. where the water flow is minimal. They should be mounted in the central passage of the seawater flow from the inlet grids to the seawater suction.
8. Ensure not to use oversize cables for the MGPS anodes as they are likely to cause mechanical overload on the terminal blocks.
9. Under daily watch keeping duties, check the digital display ammeters are working properly. When an anode has nearly consumed, the corresponding display will show a low value.
10. If the anode current value has dropped to a low level, turn off the current knob to zero, i.e. no supply to the anode and renew the anode at the first opportunity. After renewing the anode, reset the current to the previously given current settings.

When the in use current is set 3.3 to 3.5 but current drops too low, then there may be a break in cable, grounding of cable or wear down of anodes. Anodes needs to be checked and if copper anodes are much wasted, then need to be replaced at the earliest.

Also, vessel has to make sure that Monthly Log Sheet is sent to Maker on a monthly basis for evaluation and if any changes are required to current setting as per the Monthly Log, Fouling Report or size of remaining anodes, the Maker will advise accordingly.

11. For treatment tank type MGPS, open the air vent on a daily basis to prevent air pockets inside the tank.
12. When replacing or renewing the anodes, ensure to carefully unscrew the mounting nuts to prevent the anodes falling down the sea chest, which may damage the chest or the anode itself. While dry docking of ships, the MGPS anodes are normally opened up for overhauling and checks.
13. While opening the anode, never lift or support the anode from its cable or apply any mechanical load to anode cable.
14. The new spare anode, which is of held-in type or flanged sleeve type is supplied unpainted with a rust prevention coating. Ensure to remove this coating before the installation. Never use a wire brush or mechanical instrument to remove this layer. White spirits or turpentine can be used for the removal of this coating.
15. If anodes are installed in a space where blast cleaning or painting is not finished, they must be suitably protected. Before flooding the spaces, check to ensure that the protection has been removed. Also, remove any paint, tape adhesive residue or grease from the anode surface.
16. Ensure the renewed anodes are mounted in the vertical position unless otherwise stated by the Maker or Manufacturer.
17. During dry docking for retrofit systems, before the vessel is launched or refloated, check the isolation of each anode from the hull, as well as continuity of the positive feed circuit to the anode.

The MGPS installed on a ship must be effective against a large variety of organisms due to the multiple numbers and complex nature of fouling communities present in waters of different parts of the world the ship plies to. Any antifouling agent used within the MGPS must comply with the Local and International Regulations and requirements, particularly about biocidal discharges.



### Consequences of Marine Growth and Marine Fouling

As the marine organisms flourish, they block and narrow the passage of cooling water in the ship's system resulting in the following factors:

- Impairing the heat transfer system
- Overheating of several water-cooled machineries
- Increase in the rate of corrosion and thinning of pipes
- Reduced efficiency which can lead to loss of vessel speed and loss of time

The effective working of the system can only be determined by inspection. We suggest that the strainer is examined regularly to check for fouling. If the anodes are **strainer mounted** then they can also be checked for wear. If the anodes are wearing and the control panel isn't in an alarmed state then the system will be working fine.

The current settings for each particular system are stated in the installation manual by Maker of relevant MGPS system. These should be adhered to at all times to ensure the anode lasts the required lifetime.

### Typical current setting for MGPS system

1) Wilson Walton:

Anodes	In Use	Not in use
Cu	1.1 Amps	0.2 Amps
Al	0.5 Amps	0.2 Amps

2) Corpro MGPS:

Anodes	In Use	Not in use
Cu	1.35 Amps	0.3 Amps
Al	0.8 Amps	0.3 Amps

3) Cathelco MGPS:

**NOTE :** The higher the current setting the shorter the anode life.  
The lower the current setting the greater the anode life.

ANODE REF	IN OPERATION CURRENT SETTINGS			NOT IN OPERATION CURRENT SETTINGS
	1,700m3/hr	1,200m3/hr	600m3/hr	
MG 1	2.6 Amps	1.8 Amps	0.9 Amps	0.4 Amp
TC 1	2.6 Amps	1.8 Amps	0.9 Amps	0.4 Amp
MG 2	2.6 Amps	1.8 Amps	0.9 Amps	0.4 Amp
TC 2	2.6 Amps	1.8 Amps	0.9 Amps	0.4 Amp

Above current setting is standard setting. This may vary and Maker may advice you to change the setting as per log sheet evaluation, age of the ship and fouling condition.

For other MGPS makes, please refer Operational Manual for standard current setting for MGPS.

**Contributed by: Mr Kamlesh Solanki (Technical Department)**





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