

INTEGRATED MANAGEMENT SYSTEM

Senior Engineers



ISM CODE - PURPOSE

ISM CODE – Means the International Management Code for **Safe Operation** of ships and **Pollution Prevention**

Which Regulation allows us to have the ISM Code ?

SOLAS

Chapter IX - Management for the safe operation of ships , came in force on 01 July 1998.

Purpose of ISM

- ☐ To ensure Safety at Sea
- ☐ To prevent human injury or loss of life
- ☐ To avoid damage to the environment and to the ship.



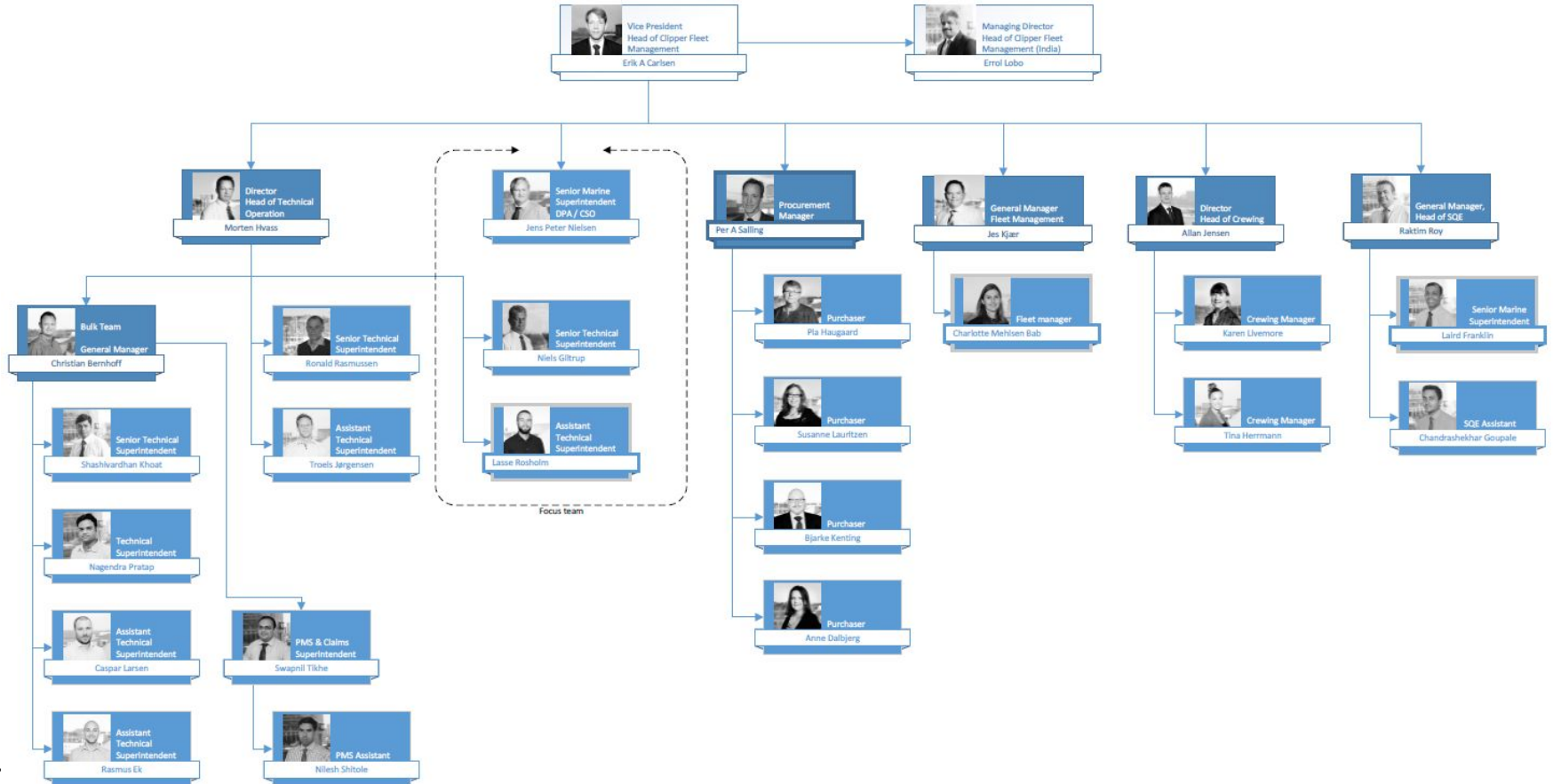
IMS STRUCTURE



Chapter 1	General
Chapter 2	Policies, Environment & Energy Management
Chapter 3	Company Responsibilities and Authority
3.1	Administration
3.2	Technical Safety, Quality & Environment Crewing
Chapter 4	Designated Person(s)
Chapter 5	Master's Responsibility and Authority
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Chapter 7	Shipboard Operations
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7.6	Administration
7.7	Passenger Vessels

COMPANY ORGANISATION



MISSION, VISION, VALUES & POLICIES

Mission

- Be our customers' preferred partner

Vision

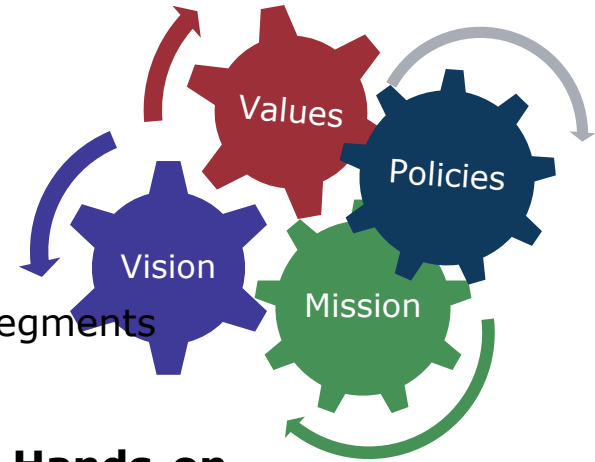
- To always be among the leaders within our core business segments

Values

Dynamic | Dependable | Innovative | Hands-on

Policies

- Health, Safety, Quality, Environmental and Energy Policy
- Drug and Alcohol Policy
- Security Policy
- Functional Policies
- Harassment and Sexual Harassment Policies



SAFETY, ENERGY AND ENVIRONMENT PROTECTION COMMITTEE MEETING

- All Crew must take Active part in the SEEPC Meeting
- The Committee and other senior staff onboard must encourage the junior officers and other personnel in improving their basic Safety and Environment Awareness and knowledge

ISO SCOPE AND PLANNING

The Scope of the Integrated Management system covers the office activities and vessels operations (Bulk and Other Cargo Vessels), thus enabling it to follow a systematic approach in achieving continual improvement of Performance in terms of quality and customer satisfaction

SEWAGE MANAGEMENT

GUIDELINES

Following are the Company's requirements for Sewage Disposal:

- The sewage treatment plant must be in use at all times except D/Dock.
- Maintenance on the plant must be carried out as per maker's instructions.
- Vessel's staff to be fully aware of what cannot be disposed in the sanitary system.
- Posters, signs and instructions regarding the above should be displayed or available in each cabin.
- The sewage treatment plant must not be bypassed under any situation, without information to the Technical Department
- Direct overboard valves of the plant must be shut, lashed, and sealed.
- The Technical Department must be informed immediately when the plant operation stops or there is a defect in the system.



When discharging sewage the following discharge rules laid down by MARPOL Annex IV, MEPC 115 (51) and MEPC 157 (55) must be adhered - IMS Document: 07.02.10

DESIGNATED PERSON(S)



DESIGNATED PERSON ASHORE (DPA)

Jens Peter Nielsen

Phone: +45 30 38 5163

ALTERNATE DPA

Raktim Roy



COMPANY SECURITY OFFICER (CSO)

Jens Peter Nielsen

ALTERNATE CSO

Raktim Roy



MANAGEMENT REPRESENTATIVE (MR)

Jens Peter Nielsen

ON BOARD FAMILIARISATION

Guidelines

- The objective of this procedure is to ensure that new personnel and personnel transferred to new assignment related to safety and the protection of the environment are given proper familiarisation with their duties and responsibilities.
- The seafarer shall be given a familiarisation tour before being assigned to any shipboard duties, but no later than the vessel's departure from the port.
- The familiarisation tour shall also be given to any person who sails with the vessel - repairmen, family members, office staff etc. The Checklist "Safety - Immediate" shall be used.
- When the checklist "Familiarisation "Bridge/Engine/Cargo"" has been completed, the on signer should enter the time and the date of completion and sign the form before presenting it to the Master.



The Form "Pollution Prevention Compliance" must be completed within 24 hours from joining the vessel and filed in the Master's file.

ONBOARD TRAINING PROGRAM

On board training is arranged by the Company in order that:

- There is an adequate follow-up to the training its seafarers receive ashore prior to their joining the vessel.
- The vessel's performance is enhanced, by improving the Safety Standards, and thereby reducing the occurrence of Accidents & Incidents.
- The boarding of the vessels shall take place as a minimum on an Annual Basis.

Planning of the On Board Training program

- The Planning of the On Board Training shall be done out on an annual basis. This Plan shall be made keeping in inspections that the vessel shall be subject to by the Company's superintendents for Audits and Technical Inspections, in order to ensure that vessels are boarded at proper intervals, spread across the year.

On Board Training Schedule

- The Training Superintendent shall as soon as possible after boarding the vessel hold a meeting with the Master and Senior Officers primarily to discuss the schedule of training. At this meeting the schedule of routine jobs and vessel's operations shall be discussed. This being needed, due to the fact that some of the training modules would require the Officers and Ratings to be trained independently whilst others would require training in a group.

On Board Training Matrix

- The On board Training Matrix lists modules that shall be addressed by the Training Superintendent as part of the On Board Training Program.

Reporting

- The Training Superintendents on disembarking from the vessel shall prepare a report of the On Board Training carried out which besides being used by the management to follow-up on the training done shall serve as a record for third party interests inspecting the vessel or the Office.

CADET'S TRAINING PROGRAM – IMS Document:06.05.04

- The Company has in place a program for the overall development of its cadets to ensure that they become professional officers through planned and progressive training.
- **It is important that any work delegated to the cadet is purely on the job training and shall be carried out under the direct supervision of the officer responsible.**



PERSONAL TRAINING RECORD BOOK

- All new joining officers are to be issued with the Company's Personal Training and Record Book (PTRB).
- The Personal Training Record Book (PTRB) serves as a comprehensive record of training attended by the seafarer both on board and ashore.
- **The responsibility of maintaining the PTRB lies with the seafarer and hence it is to be carried at all times whilst serving on the Company vessels.**
- The seafarer shall familiarise himself with the instructions as detailed within the book and comply accordingly.
- The Company's Representative shall inspect the PTRB whenever the seafarer signs on/off the vessel.



MLC 2006 COMPLAINT PROCEDURE

- A seafarer who needs to raise a complaint has to address such complaint to the Chief Officer, Chief Engineer or to the Master. Such a complaint can either be written or verbal.
- In case of a verbal complaint the “receiver” has the obligation to write down the complaint.
- The seafarer has, without delay, the right to have a copy of the written down complaint.
- The seafarer has the right to be accompanied or represented by a spokesman as well as the right to raise the complaint direct to the Crew Manager, the DPA or a Director in CFM.
- Seafarer also has the right to lodge the complaint to the Flag State. Details are given in CFM IMS Document: 06.01.07-07

Example:

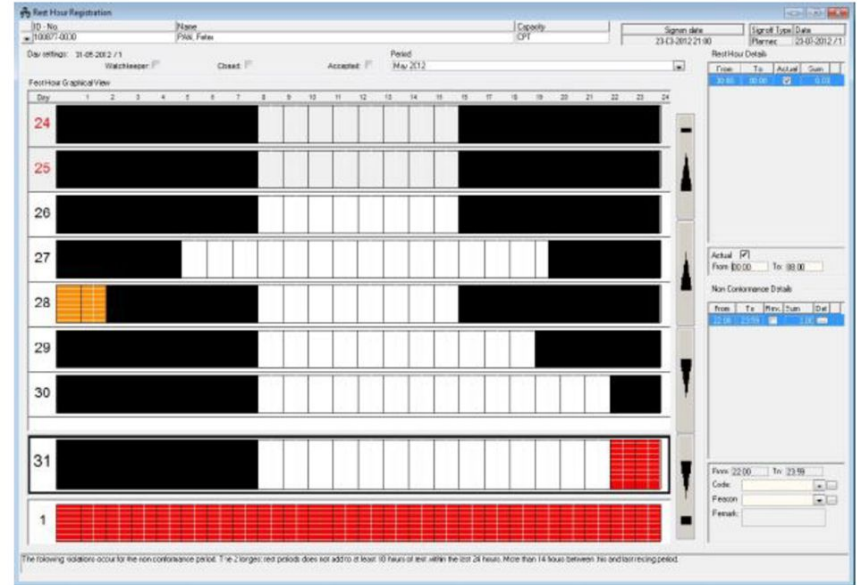
- **Flag State (Bahamas Flag Vessel) : Email - stcw@bahamasmaritime.com : Phone: +44 207 562 1300**



REST HOUR REQUIREMENTS

GUIDELINES

- As per the regulations, the requirements are that the seafarer must have at least 10 hours of rest in every 24-hour period and 77 hours of rest in every 7-day period.
- The hours of rest are not divided in more than 2 periods of which one period is at least 6 hours in length.
- Every Crew member should fill up his daily work done and rest hour in Sea Manager**
- The responsible officer must plan all rest hours properly so that violations are avoided. The office should be informed in case of any violations in rest hours.**



SEAMANAGER

RESPONSIBILITY MATRIX – SHIP STAFF

Clipper Fleet Management A/S
 RESPONSIBILITY MATRIX
 Ships Staffs:

L: Lead Role
 S: Support Role
 A: Ultimate authority

Responsibility	Master, C/E	Senior officers, C/O, 2/E	Junior Officers, 2/O, 3/E, 3/O, E/O	Senior Crew, Bosun, AB, C/Cook	Junior Crew, OS, Oiler, Cadets
On board authority on IMS and ISO standards	A	S	S	S	S
Communicate on board the Importance of EMS & IMS	A	L	S	S	S
Coordinate Auditing Task	A	S	S	S	
Ensure Regulations are met as per standards	A	L	S	S	S
Train employee within teams	A	L	L	S	S
Stop or allow any EMS & IMS related matter	A	A	A	A	A
Comply with new regulations coming in force	A	L	S	S	S
Ensure ship staffs comply with IMS or ISO standards	A	L	S	S	S
Monitor Key ship board process	A	L	S	S	S
Coordinate Emergency Response on board ships	A	L	S	S	S
Maintain training Records	A	L	S		
Maintain IMS & ISO Related Records	A	L	S	S	S

PERSONAL PROTECTIVE EQUIPMENT

- The objective of this procedure is to provide instructions on the proper use of Personal Protective Equipment (PPE) whilst carrying out tasks on board the vessel.
- It is the responsibility of every crew member to wear the correct PPE at all times.
- At no time should any member of the ship's crew be involved in any operation or task without wearing the required PPE.



PLANNED MAINTENANCE SYSTEM

Maintenance

- Routine maintenance is carried out in accordance with the planned maintenance system.
- All records in the PMS must be kept up to date at all times.
- The work instructions should be followed as detailed within the PMS.
- This will ensure a standard work performance.
- In the event of a schedule job becoming overdue it must be rescheduled and attended to as soon as possible.
- There should be no Fire Fighting / Life Saving Appliances item overdue for maintenance.
- The Chief Engineer is responsible for the maintenance and repair of all equipment on board the vessel.
- The computer based planned maintenance system also includes the complete inventory control.
- It is required to be updated, to insure that the PMS reflects the exact physical inventory on board the vessel.

Monitoring of Overdue Planned maintenance:

The Company has a procedure to regularly monitor overdue items / jobs in the planned maintenance system.

This can be broadly categorized into 3 sections

- Regular monitoring
 - On a regular basis the Technical department keeps a track of all jobs reported as done and / or marked as in progress.
- Monthly monitoring (For Company KPIs)
 - A percentage of jobs as required for the company's KPI's
 - A follow up is done on vessels whose overdue percentage is higher than the required Company's KPI.
- Monthly monitoring of rescheduled jobs
 - Rescheduled jobs are monitored on monthly basis.
 - Reasons for rescheduling are reviewed by the Technical Department.
 - Follow-up with vessel on individual items shall be carried out, as required.

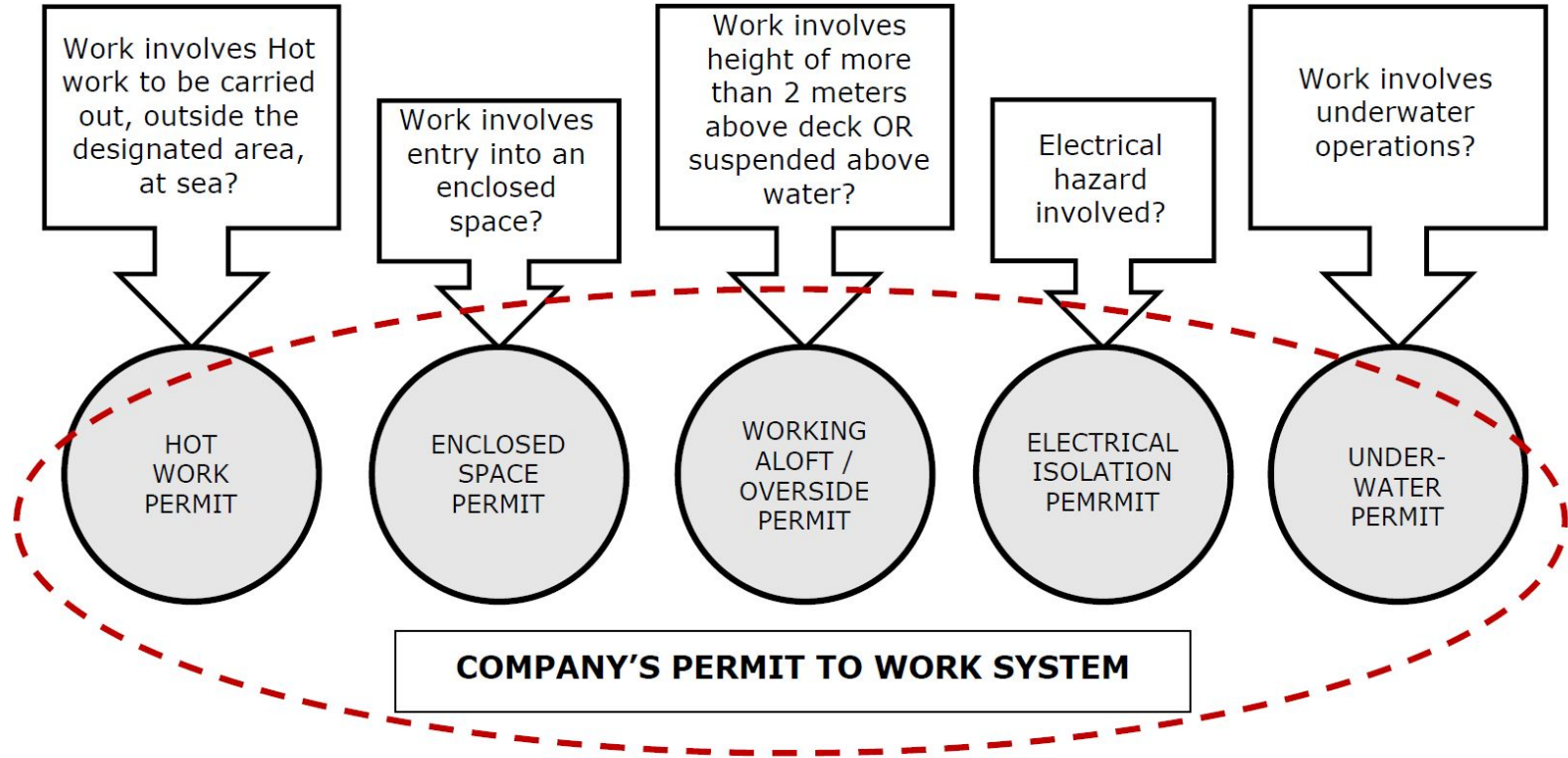
Inventory Control and Requisition

The computer based planned maintenance system also includes the complete inventory control

It is required to be updated, to insure that the PMS reflects the exact physical inventory on board the vessel

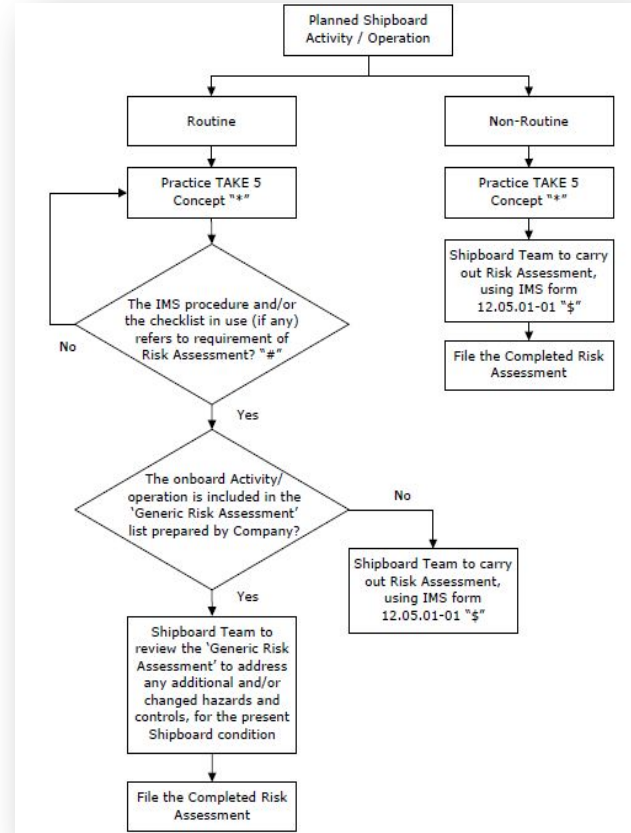
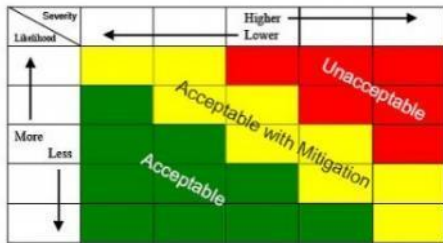
The PMS contains a module for requisition, requirements for which have been detailed in the purchasing procedure within the IMS.

PERMIT TO WORK SYSTEM



RISK ASSESSMENT

- When carrying out risk assessments, guidance should be taken from the relevant sections of the 'Code of Safe Working Practices'.
- The process of risk assessment should be carried out by suitably trained personnel (Ch Off/ Ch Eng)
- All Crew carrying out the task shall be involved in completing the Risk Assessment
- Their suggestions should be valued as they will experience the hazards

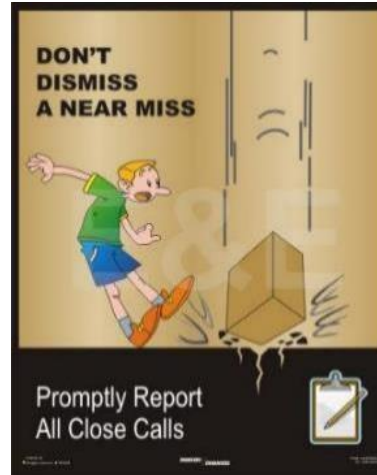
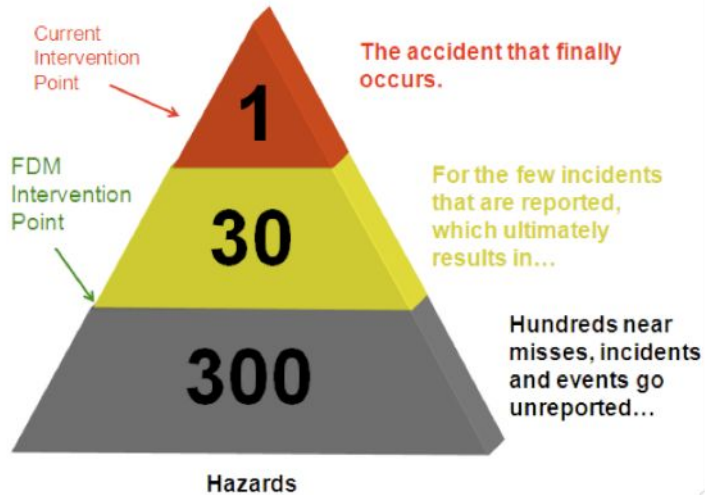


SAFETY CAMPAIGN



NEAR MISS REPORTING

- Every person on board has a responsibility for Safety
- Don't wait for SEEPC Meeting to report near miss



ENCLOSED SPACE ENTRY

- NO one is allowed to entry into Enclosed Space without clear Master's permission.
- Prior to entry into a confined space atmospheric testing shall be conducted (with ventilation stopped for this duration).
- Testing should be conducted at a minimum of three levels and this shall include the lowest point of the space being tested.
- Properly calibrated gas detection instruments should be used for the space to be considered safe for entry.
- The respective spaces shall be tested based on hazards associated with the same
- Oxygen content must be 20.8% by volume
- Hydrocarbons must be less than 1% LEL
- Toxicity – Is measured to be less than the Threshold Limit Value (TLV) for all known or suspected toxins.
- Hydrogen Sulphide is suspect for tanks that contained bunker fuel
- All gas and oxygen detectors used are to be function tested and if necessary calibrated.
- Only personnel familiar with the gas and oxygen testing equipment are to carry out testing of the enclosed space atmosphere
- Safety Officer is responsible for gas detectors and their proper maintenance and keeping in fully operational condition at all times.
- The atmosphere shall be continuously monitored with portable oxygen and gas monitors where applicable.
- If personnel leave the space for more than 30 minutes then the atmosphere must be re-tested at the lowest point.
- Ventilation shall be carried out till the place is certified safe for entry and then throughout the time of entry.
- Duly instructed watchmen with Emergency equipment shall be kept ready to use and standby outside the enclosed space and shall as a minimum include the following:
 - Self-Contained Breathing Apparatus
 - Emergency Escape Breathing Device
 - Lifelines and Rescue Harness
 - Resuscitator
 - Remote Gas detection instruments
 - Two way VHF-Radios
- Enclosed Space Permit must be completed by Responsible Person and posted at the site of entry
- Once the job is completed and all personnel & Equipment's are out of the enclosed space, it must be closed and secured.
- The Enclosed Space Permit must be closed.

EVENT REPORTING

- **Failure to comply with IMS:** certain existing IMS Process or procedures.
- **Failure of critical equipment** in areas where the Master considers that vessel's safety could be comprised.
- **Port state control Deficiencies**, as identified against IMS system
- **Conditions of Class:** which can result in detention of the vessel.
- **Pollution (environmental Damage- No person Injured):** Pollution to environment of any extent, but which do not results into any Personnel injury.
- **Blackmail:** The action of demanding money from Master or Crewmembers, in return for doing favour of passing any port formality, Port state control inspection, passing cargo hold etc.

Internal Reporting:

- This includes onboard reporting/reports made to the Company.
- All undesired events (Incidents, Accidents, Near Misses and Non-conformities) are to be immediately addressed and controlled onboard by taking corrective actions.
- All undesired events are to be reported to Company, via the Event Reporting system.
- In case of any doubts whether a report has to be made or not, a report shall be made, subsequent to which clarification can be sought from the Company.
- The Event Reporting system provides many options and fields which ensure systematic and correct reporting.
- The report should be complete, with all required information provided.
- Onboard all such reports are to be shared during the Monthly Safety Committee meeting, without blaming anyone and encouraging the ship's crew to identify and share such events.
- Formal reports, whenever prepared by the investigating team, are to be submitted to the Head of the SQE Department, who shall review the same and submit it to the Head of Company.

External Reporting (Flag State/Third parties):

- All mandatory reporting requirements (in case of undesired events), as required by various approved contingency plans e.g. SOPEP, NT-VRP and/or local regulations e.g. CFR requirements must be complied with.
- In consultation with the Company, the relevant Flag state must be informed when a vessel is involved in a serious event such as:
 - Collision, Grounding, Fire, Explosion, Leakage, etc.
 - Accident with substantial material damage
 - Death/Serious personal accident on board or to a person from the vessel.

EMERGENCY PREPAREDNESS

- All crewmembers must be aware of alarm signals used in case of an emergency
- All personnel shall participate in the drills or mustering, and be properly dressed at their appointed emergency stations in accordance with the Muster Plan



- **General Alarm:** The general alarm on the ship is recognized by 7 short ringing of bell followed by a long ring or 7 short blasts on the ship's horn followed by one long blast. The general alarm is sounded to make aware the crew on board that an emergency has occurred.

- **Fire Alarm:** A fire alarm is sounded as continuous ringing of ship's electrical bell or continuous sounding of ship's horn.



3RD PARTY / PSC INSPECTIONS

On Board Preparation

- The master and all personnel onboard must ensure that the vessel is at any time ready for inspection.
- Following items that shall be looked into prior to entering into a port:
 - All documents must be kept in correct and structured order
 - All record & log books must be fully updated
 - There should be proper watches
 - Adequate PPE must be worn
 - The vessel must have a safe and clean appearance
 - Failure on critical equipment must have been reported
- In short it is expected that a Company vessel is ready for a PSC inspection at all times with no deficiencies.



Conducting an Inspection

- The inspector's impression of the vessel starts with his first impression e.g. cosmetic appearance, gangway appearance, the mooring arrangement, the ISPS watch, the house hold, the way the vessel is moored etc.
- The first few experiences on board the vessel will contribute to the final outcome of the inspection.
- The Inspector should at all times be accompanied by an appropriate qualified Officer.
- In case a finding is identified then an immediate corrective action shall be initiated.
- This will help to rectify the fault while the inspector is still on board, so that the deficiency may be removed from the final report.

MONITORING THE STATUS OF CERTIFICATES AND CLASS

Class Status Monitoring

- The Superintendent shall monitor the classification status. He shall in co-operation with the Shipboard Management ensure that class recommendations are followed up within due dates, if necessary apply for extensions with new due dates, and ensure that this is planned and executed as stated.

Certificate Status Monitoring

- The Superintendent shall monitor the status of the certificates, in order to be fully informed, and to be able to co-ordinate renewals at convenient opportunities.
- The Master is fully responsible for the validity of the vessel's certificates, and that they are available for review at all times. The Master shall request surveys through the vessel's Superintendent, who shall make the necessary arrangements.
- Original certificates shall be kept onboard, with copies in the Company office.

Reporting to Class

- The Superintendent must ensure that Class is informed as soon as possible, of any incidents and/or situations, which affect the vessel's sea-going condition or certification status.



ME AND AE PERFORMANCE TESTS

All maintenance on the Main and Auxiliary engines should be done at the prescribed intervals as per the Planned Maintenance System.

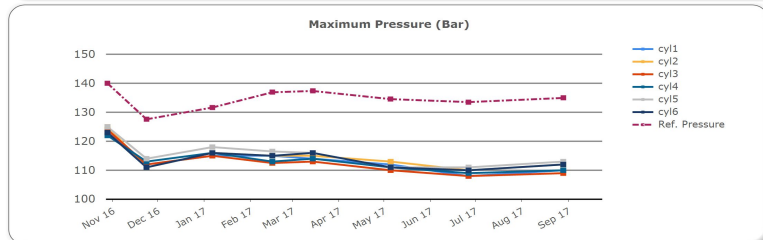
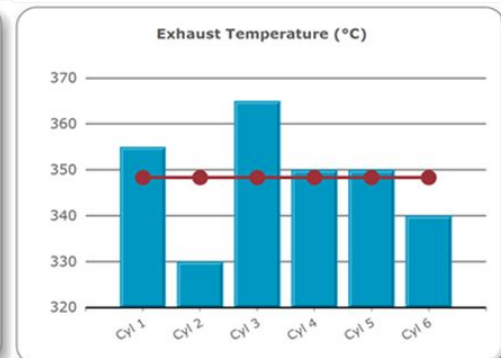
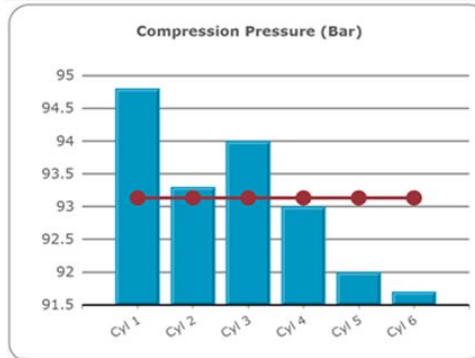
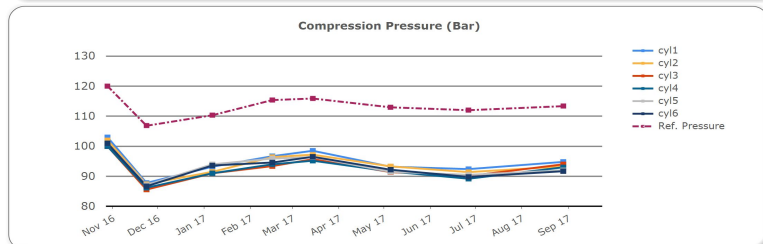
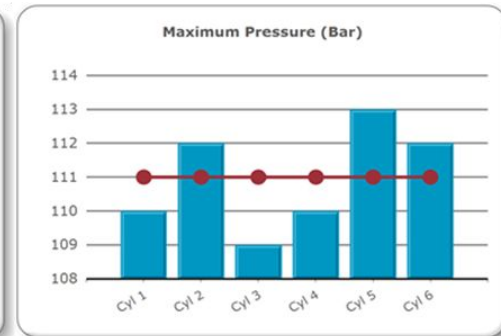
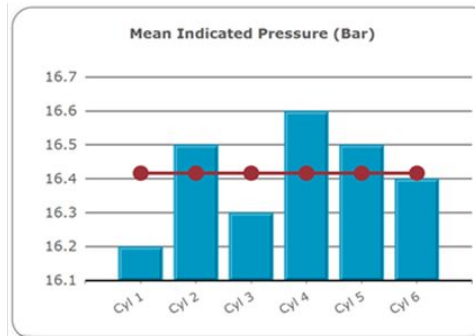
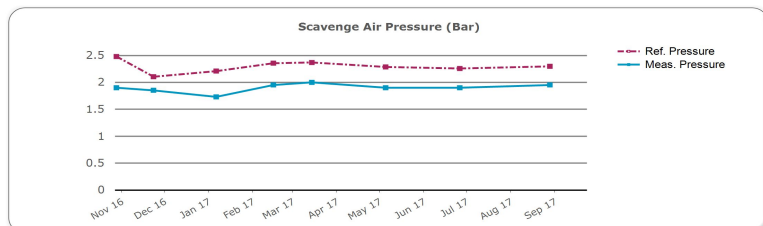
- The fuel oil treatment should be done as advised by the testing laboratory for optimum performance.
- The Auxiliary engine where possible should be run on high loads in the safe operating conditions.
- The performance of the Main & Auxiliary engines should be measured at least once a month when on steady load.
- The peak pressures, scavenging air pressures, exhaust gas temperatures should be maintained as advised by the makers.
- The water washing of the exhaust gas boilers should be done at regular intervals based on close monitoring of differential pressure across the exhaust boiler, to minimize the back pressures on the exhaust system.
- The specific fuel oil consumption should be calculated once every month and compared to sea trial records.

ME AND AE PERFORMANCE TEST REPORTING - COACH

Air and Exhaust Gas System		
Parameter	Measured	Reference
Ambient Pressure (hPa)	1014	
Scavenge Air Receiver Pressure (bar)	2.0	2.30
Scavenge Air Receiver Temperature (°C)	46	36
Exhaust Gas Receiver Pressure (bar)	1.7	2.01
Exhaust Gas Receiver Temperature (°C)	410	
Exhaust Gas Pressure After TC (mmWC)	0	159
Pressure Drop Boiler (mmWC)	0	
Exhaust Gas Temperature After Boiler (°C)	0	
Exhaust gas colour	Transparent	

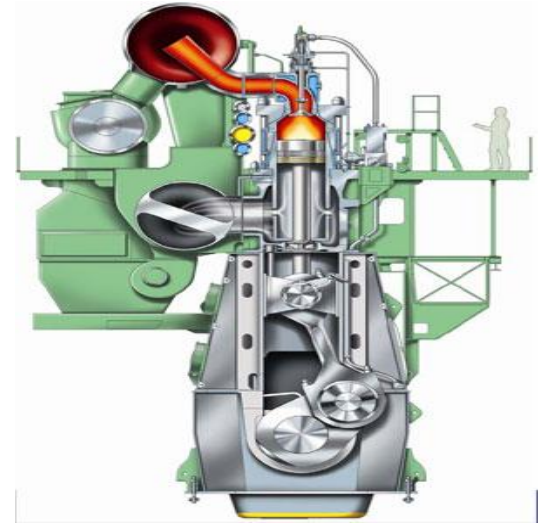
Cyl	Mean Indicated Pressure (Bar)	Maximum Pressure (Bar)	Compression Pressure (Bar)	Fuel Pump Index	VIT	Exhaust Gas Temp (°C)	Cooling Water Outlet Temp (°C)	Valve Rotation (s/rev)			
								Outlet Left	Outlet Right	Inlet Left	Inlet Right
1	16.2	110.0	94.8	60.0		355	79				
2	16.5	112.0	93.3	59.0		330	80				
3	16.3	109.0	94.0	60.0		365	80				
4	16.6	110.0	93.0	60.0		350	80				
5	16.5	113.0	92.0	59.0		350	80				
6	16.4	112.0	91.7	60.0		340	80				
Mean	16.4	111.0	93.1	59.7		348	80				
Ref		135.0	113.4	66.6		307					

ME AND AE PERFORMANCE TEST REPORTING - COACH



TIPS TO OPTIMIZE MAIN ENGINE SFOC.

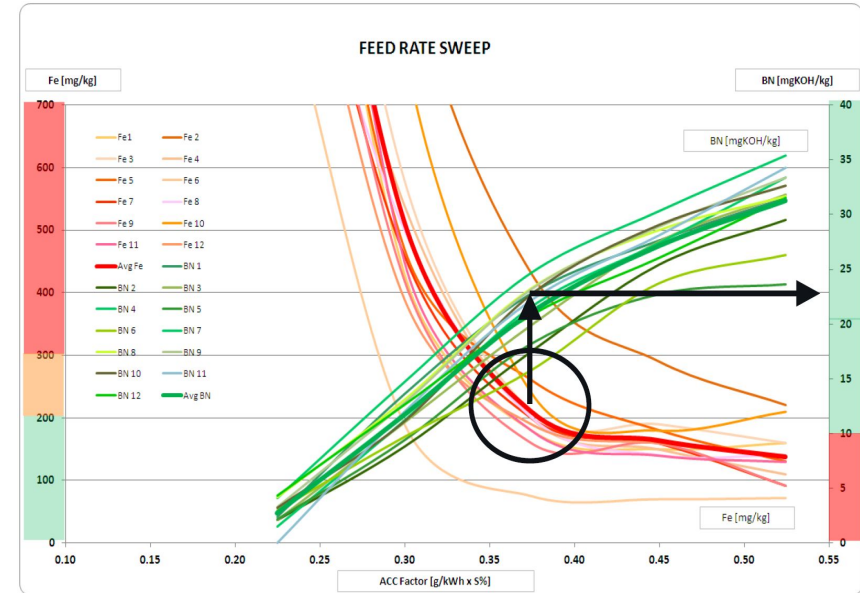
1. Correct adjustment of FQS function and EVC timing.
2. MIP per cylinder (controlling injected fuel amount)
3. Pcomp / Cylinder (controlling the EVC timing)
4. Pcomp all (controlling the EVC timing)
5. Pmax / Cylinder (controlling injection timing)
6. Pmax all (controlling injection timing)



Correct power reporting from the torsion meter has a crucial role in the calculation of the ME SFOC. Hence vessels must ensure to check the correct settings of the torsion meter to correctly evaluate and monitor the developments of the Main Engine fine tuning.

CYLINDER LUB OIL CONSUMPTION

- Cylinder lubricant has two purposes:
 - Avoid excessive mechanical wear of the liners
 - Avoid excessive chemical wear of the liners
- Less CLO consumption causes
 - Less cost 1.1 to 0.8 g/kWh eq. USD 10,000/year
 - Less residual BN
 - Increased Fe content
- Increased CLO consumption causes
 - Higher cost
 - Higher residual BN (Polish)
 - Less Fe content
 - Increase of Carbon deposits and broken rings



BOILER EFFICIENCY

- Burners (Oil, Air, Atomizing, Spark)
- Consequences if.....
 - **Too much air** - High exh gas temp. & white smoke and reduced efficiency
 - **Too little air** - Low exh. gas temp. & dark/black smoke and increased fouling

Best Practices for Boilers:

- Do not start auxiliary boilers too far in advance of intended use.
- Minimize steam dumping when possible.
- Maintain pipe/vale laggings in good order to minimize heat loss.
- Maintain steam traps in good order
- Use steam tracing judiciously
- Optimize bunker tank heating



STEAM TRAPS / STEAM LEAKAGES

- 1) Steam trap failure
 - I. The Heat transfer cycle demands condensation of the steam before returning to the condensate system
 - II. Else the heat will dissipate in the engine room through the condensate system

- 2) Steam Leakages
 - I. Raising the temperature and moisture in Engine room
 - II. The daily consumption of water will reduce the water available for the crew.
 - III. This may demand delivery of shore water or need to produce water at anchorage.
 - IV. Risk of adding Oxygen, salinity and minerals. All are unwanted - Accumulation.



Both above will create higher temperature in ER and additional ER FANS will be running to make the environment cooler.

TRAVEL INSTRUCTIONS FOR SEAFARERS

Cost Control

Before any planned seafarer embarkation or disembarkation is executed the crew manager is obliged to clarify which costs are connected with such. The clarification must as a minimum include costs for 1) Flight tickets, 2) Agent fee including local transport costs, 3) Visa and Immigration, 4) other.

Travel Planning

The on signing Seafarer's travel to vessel must be arranged in respect to the seafarer's "Rest hours" requirement and Hand-Over.

Rest Hours

In so far as is practicable and subject to the vessel's trading pattern and schedule there shall be provided at least a day's rest before in such way that the seafarer is adequately rested prior to taking over the first watch.

Hand Over

Senior Officers shall – if possible - have at least a 2 day hand-over.

If the Senior Officer is joining one of the Company vessels for the first time, an adequate overlap should be granted for familiarization, where as a rule the Senior Officers shall have a minimum of 5 days and junior of officers a minimum of 1 day.

Documentation.

Prior to the crew member's departure the Crew manager must ensure that the travel arrangement is in compliance with Company's requirements.

The Company form "Pre-Joining Briefing/Training" Form is to be used for this process. Completed forms must be filed at the office.

On instances where compliance to above requirements is not possible, the reason for the same should be clearly reported to the Company and an approval obtained prior taking action.

SHORE LEAVE

The Master is to ensure that his vessel is adequately manned at all times when in port ready to cope with any emergency that may arise. Under no circumstance shall all the Senior Officers of each department be permitted shore leave together.

GRIEVANCES AND DISCIPLINE

Grievances

Any seaman with a grievance however small shall have it dealt with by bringing the matter to the notice of the proper authority on board.

General

- The complaint should be referred to the crewmember's immediate supervisor.
- If the matter cannot be resolved to the mutual satisfaction of both parties, it should be referred to the respective head of the department before it is to be referred to the Master.
- The Master will deal with matter promptly observing the regulatory or contract requirements. He may consult the respective crew manager for guidance.
- In all cases when a Seafarer is given a warning or is being dismissed, the same should be in writing to the Seafarer.
 - Log Entry: Made in the Vessel's Log.
 - The Seafarer should be requested to affix his/her signature.
 - In case the seafarer refuses to sign the log entry, the Master must add: "Refused to sign".
 - The entries in the Log must be signed by the Master and at least two witnesses.



Emergency Instructions

During an emergency orders as dealt out by the Master shall be obeyed without discussion instantly. On occasions such as these failure to comply with the Master's orders will be deemed as a serious breach of discipline and could result in the dismissal of the seafarer.

Breaches for Dismissal

If the Master is convinced that any of the acts of misconduct or a serious breach of shipboard discipline standards as listed below have been committed, dismissal from the vessel either immediately or at the end of the voyage

DRUG AND ALCOHOL POLICY



It is strictly prohibited

- ❑ To bring onboard, possess or use any kind of drugs and/or alcohol or beer.
- ❑ To bring on board, possess or use any kind of prescribed and/or nonprescribed medicine without informing the Master.
- ❑ To be impaired by drugs and alcohol, during the employment on board the ship. Impairment shall in this connection be defined as a test showing any traces of drugs and/or alcohol. (Alcohol contents over 0.00% is considered impairment)

All crewmembers must participate in a alcohol/drug test required by the Master/ the Company, which is done in order to prove to third party, that the above rules are being complied with.

Any breach of the above mentioned rules will result in **immediate dismissal** from the **ship** and the **company**.

HEALTH, HYGIENE AND WELFARE

HEALTH

Each seafarer is responsible for his own health and hygiene whilst on board the vessel.

All information about a seafarer's health or sickness must be treated strictly confidential on board the vessel as well as ashore. Any treatment ashore is free of charge for the seafarer. Kindly also refer to CFM IMS Document 06.03.07.



Medical

Only first aid and routine treatment shall be given on board and all other cases should be referred to a doctor ashore.

When a seafarer is sent ashore to the doctor, the following shall be adhered to:

- The Master may designate a responsible officer/person or coordinate with the agent to accompany the patient to the doctor.
- The form "Request for Medicare" will be carried when a seafarer is sent ashore for medical treatment. This form must be returned to the Master or his designated person on the seafarer's return on board. **IMS Document: 06.03.07-01**
- An entry in the corresponding log implemented on board must be made on each occasion any of the crew seeks medical advice or attention on board regardless of whether any treatment is administered.
- An ongoing record of the nature and or progress of the illness must also be logged.

HYGIENE

- Hygienic Conditions on board are closely monitored through regular inspections by the Master, senior officers and the elected safety representative.
- The Master shall conduct an inspection of the Crew's Accommodation at least once a week. A brief update of the Accommodation condition and its status should be included in the monthly safety meeting minutes.
- Use separate cutting boards (color-coded boards help to keep them separate) and utensils for raw animal foods (i.e. meat, poultry, seafood, eggs and foods containing them) and produce or other foods.

WELFARE

The Master shall ensure that the Vessel's crew is provided means of relaxation and alternative activities in their time off, with emphasis on social relation aspects. The Company strives to ensure that all its vessels are equipped with sufficient welfare equipment to look after the crew's recreation.

SLOPE CHEST AND PROVISIONS



SLOP CHEST

The Slop Chest is a welfare issue on board the vessel and shall remain the property of the Company at all times.

The Master shall purchase all stores as deemed necessary to be kept in the Slop Chest locally.

The stock of slop chest articles should be kept at a minimum considering the number of crew on board and in any case shall never exceed an amount equivalent to USD 3000/- or any other amount as may be specified by the Company from time to time.

Sales:

Amounts for all purchases made by the vessel's crew must on a monthly basis be deducted from the seafarer's account of wages or forwarded as part of the variables when the crew payroll is being done ashore. Additionally any representation cost incurred on the Owner's or Charterer's account shall be reported on the Company form – Slop Chest Account.

Monthly Account

- At the end of each month an account is to be made of all sales and purchases which in turn shall be included in the vessel's monthly account. The form – Slop Chest account shall be used for this purpose.
- A commission of 5% may be deducted from the total sales of each month. **IMS Document: 06.03.10-01**

PROVISIONS

- The Company has appointed a contractor who shall look after the supply and monitoring of Provisions on board from ashore. In maintaining the Provisions on board in terms of requisitioning, inventory control and reporting guidelines as provided by the contractor shall be adhered to.

WORK MEETINGS

It is of utmost importance that the Master and Senior Officers plan, co-ordinate and execute all tasks on board in close co-operation.

In order to achieve a proper flow of information among the various departments a work meeting shall be held at a minimum **once a week**, to discuss, all ongoing and planned work on board. The work meetings held on board shall be attended by all the Senior Officers. The Master shall as he deems necessary request any other members of the ship staff to attend these meeting either on a planned or ad-hoc basis.

Meeting Items

The items that shall be discussed at the meetings shall include the following:

- Ongoing planned jobs including due and overdue items i.e. **PMS**.
- Schedule for jobs in the forthcoming week i.e. Jobs to be focused on, due to weather, safety precautions for the jobs, spare part consumption etc.
- Adequacy of IMS procedures and checklists used for the jobs already performed and the jobs to be done.
- Hazard identification for the jobs scheduled for the week. Reference shall be made to the procedures as provided.
- Avoidance of conflict between scheduled jobs in the forthcoming week, especially the avoidance of conflicts that compromise safety. Permit to work required for the scheduled jobs in the forthcoming week.
- Review of maintenance done in the past week — are scheduled jobs or works completed; planned consumption and actual use of spare parts; have any accidents or near accidents occurred and lessons learnt, was any unplanned maintenance undertaken i.e. reasons etc.
- Updating the defect report with items completed/addressed or new items.
- Tasks required to be completed before the next port i.e. including port state control and other inspections.

DAILY: Chief Engineer and Chief Officer should ensure that an informal daily work meeting is conducted with their respective staff before any work in Deck and Engine room.

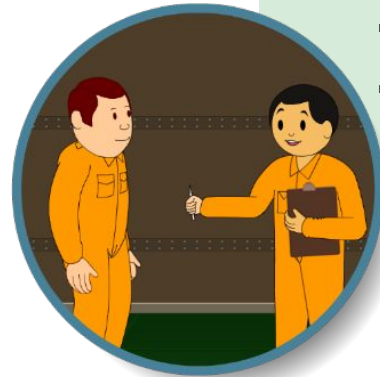


WHY DO WE NEED TO DO APPRAISALS ?

- What is a good manager ?
 - Leadership
 - Constructive follow-up with the team
 - Knowledgeable and ready to learn more
 - Developing the team members (attention)

The Technical Superintendent is supposed to:

- Provide documented feed back to the Master and Chief Engineer.
- Explaining to them the need to Change
- Explaining to them the need to Improve
- Are supposed to express their progress related to their Goals.



- How does a manager improve ?
 - Giving/Getting Feed back
 - Seeking Feed back
 - Will to change
 - Will to improve
 - Checking the progress in the big in in the big picture(goals)

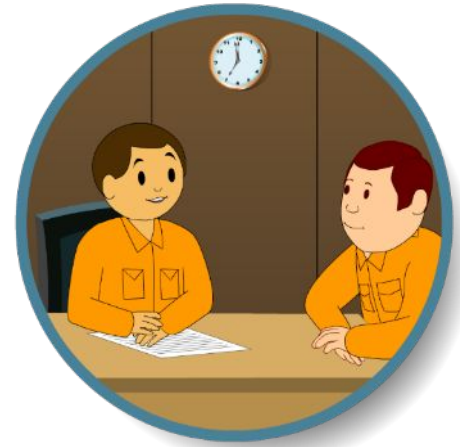
And if the Master or Chief Engineer disregards

- You and your colleagues will again exposed to insufficient performance
- Poor performance will be vested with the Juniors in the future as they grow to be seniors

2ND ENGINEERS APPRAISAL

The Company encourages Master's and Chief Engineers to take part in the training and development of seafarers to be competent enough to be recommended for promotion to the next rank. When recommending a seafarer for promotion the following must be taken into consideration:

- Certification and Experience
- Performance and or Ability in the present rank.
- Conduct towards the job, superiors and fellow crew members.
- Technical competence of the next rank.
- Training and interest in the competency development.



It is preferable that the promotion should be done during the term of the contract of seafarer or on the same vessel where the seafarer received the recommendation however promotions should in any case be pre-planned and approved before the seafarer joins the vessel on which he will be promoted.

Senior Officers cannot be promoted on board without having been first approved for promotion by the Company.

PERSONAL PERFORMANCE FEEDBACK

GUIDELINES

In the evaluation of the seafarers on board the vessels the following guidelines shall be adhered to:

- The Master and the Chief Officer shall be responsible for evaluating the Deck and Galley Departments.
- The Chief Engineer and the Second Engineer shall be responsible for evaluating the Engine Department. It is preferable that the appraiser is the one acting as a daily leader for the seafarer.
- It is the responsibility of the appraiser to ensure that the Performance Feedback is completed in an open and trusting atmosphere.
- The appraiser must ensure that the performance feedback is carried out timely and respectfully.
- The appraiser shall provide the seafarer with informal feedback during the contract – corrective and appreciative feedback. Do not wait for a performance meeting to give feedback. Instant and continues feedback has the largest effect.
- It might not always be possible for the appraiser and the seafarer to agree and in this case it is the appraiser's role and responsibility to make the final decision on expectations, development areas and evaluation. This disagreement should however be remarked.

3-Step Process – IMS Document No:06.03.13-01

The performance feedback process consist of 3 steps.

Step 1: Sign on Meeting – Performance Expectations Set

Step 2: Mid term Feedback Meeting – Informal Guidance

Step 3: Final Evaluation and Action Plan

Training

The Crew Manager is responsible for the appraiser has the needed training before he/she embarks the vessel.

ENGINE ROOM OPERATIONS AND RESPONSIBILITIES

General

The Maintenance and housekeeping within the engine room shall always be of a established high standards to ensure safe operations and reduce the risk of accidents or incidents and most especially the risk of fire and risk of pollution. All Engine room personnel must familiarize themselves with the operation of Emergency equipment especially the emergency pumping arrangements. The closing of water tight doors and sea connections including over board valves should firmly be known to all.

In case of a sudden requirement, to slow down or stop the engines for any reason, due notice is to be given to the navigating Officer of the Watch (OOW) on Bridge.

Chief Engineers Standing orders – IMS Document: 07.02.01

In addition to the Company's Standing Instructions, the Chief Engineer must list his own requirements in form of Standing Orders which should be discussed and agreed with the Master.

Bunkers, including Reserve Bunkers

The Chief Engineer should advise the Master that there is sufficient fuel on board for the proposed voyage, taking into account reserves and un-pumpables/dead stock in the tanks.

For Chief Engineer and 2nd Engineer Responsibilities kindly refer to CFM IMS Document :06.02.11 and 06.02.12.

CALLING THE CHIEF ENGINEER

- The Chief Engineer is the overall in-charge of the engine room and he can be contacted at any time for technical and operational matters. The Chief Engineer's Standing Order's shall be referred to and complied with.
- Notwithstanding the need to notify the Chief Engineer , the Duty Engineer still remains in-charge of the watch and should not hesitate to take any immediate action necessary for the safety of the crew, vessel and environment.

ENGINE ROOM - UMS

GUIDELINES

- It is necessary that the engine room is manned for at least **8 hours** in every **24 hour** period. During the unmanned period, the Chief Engineer should assign a Duty Engineer as in-charge of the engine room and the same notified to the OOW on Bridge or deck.

- The Duty Engineer shall carry out inspection routines of the engine room at regular intervals, to ensure that parameters of all equipment are satisfactory. It is the responsibility of the Duty Engineer to notify the Chief Engineer of any malfunction or failure of any item affecting the control and / or alarm systems.

- When the vessel is running UMS and it is necessary for a person to enter the machinery spaces alone, he must:
 - ✓ Inform the bridge OOW of his presence in the Engine Room.
 - ✓ Report to the bridge OOW by telephone at regular intervals or utilize the Dead Man alarm facility if fitted.
 - ✓ Dead Man Alarm must be activated when entering engine room with the timer set to 10 minutes.
 - ✓ Inform the bridge OOW on departure from the engine room that the engine room has resumed UMS operation. In case the duty engineer has not reported back to OOW at the agreed time, the OOW will call another engineer, officer or crew member to check the status.
 - ✓ The time of making the single man entry to the engine room and leaving the engine room must be logged.
 - ✓ When leaving the engine room the Dead Man Alarm must be de-activated.



The engine room cannot be put on UMS during:

- ✓ Any ongoing critical operation.
- ✓ Any ongoing Major repair
- ✓ When any Engine Room critical equipment is out of service.
- ✓ When any section of the fire alarm in the Engine Room is isolated for operational reasons.

The schedules for Engineers on Duty must be posted in the Engine Room.

BUNKERING OPERATIONS

A vessel may be involved in bunkering operations which can involve receiving bunkers from barges, shore pipeline, trucks, etc. and/or carrying out internal transfer of bunkers. Pre-bunker arrangements on deck (scuppers and mooring ropes and signals) should be verified/controlled by OOW and reported to the Chief Engineer.

- Display of Procedures is must at the bunker station
- "Maximum filling limit of any Bunker tank is 90% of its total capacity"
- Normally mixing or commingling of Bunker Fuel Oil should not be carried out. In case it is necessary to do it, the company's permission is to be sought.

All on board preparations to be carried out as per Checklist mentioned in the References – IMS Document: 07.02.06



Oil Record Book.

All the detailed requirements regarding records required to be maintained in the oil record book by MARPOL regulation are to be carried out. The oil record book (Machinery spaces) must be presented to the Master at regular intervals for verification.

Oil Transfer Procedures-USA (Refer to 07.06.02-01 G)

If the oil transfer is taking place in the USA the vessel must be prepared by oil transfer procedures compiled as required by CFR 33 155/156.

Master: Responsible for ensuring that Company and local regulations, national and international laws are strictly adhered to when carrying out routine bunker transfer and waste disposal operations.

Chief Officer: Responsible to the Master for the maintenance and deployment of pollution prevention equipment and for advising the Master if any deficiencies are discovered in such equipment.

Chief Engineer: Responsible for the planning, supervision, execution and recording of engine room oil transfer operations and bunkering operations, and for ensuring that pumps, valves, lines, incinerators and equipment associated with oil transfer and waste disposal are maintained in good order. This responsibility cannot be delegated.

"The designated person in charge"

The "designated person in charge" of transfer operations must be a qualified shipboard Engineer nominated by the Chief Engineer. The name and rank of person is to be entered on the bunkering Plan.

Hours of work must not be more than 15 hours in any 24 hour periods or 36 hours in any 72 hour period during bunkering, except in the case of an emergency.

BUNKERING OPERATIONS

Off Spec on Flash point:

Vessel to immediately contact CFM Technical operations and Vessels cargo operator.

For Safety reasons vessel should not start using this fuel until final approval received from CFM Technical Operations.

Off Spec on Sulphur:

Vessel to immediately contact CFM Technical operations and Vessels cargo operator.

Fuels exceeding the limits should not be consumed without final approval from CFM Technical Operations.

If vessel expected to enter an ECA / vessel does not have enough compliant fuel for the voyage in ECA then CFM Technical & vessels operator to be informed specifically.

Operational off Spec: (Density, Viscosity, Ash, Al+Si and others)

Vessels should then act in accordance with the recommendations of the "Operational Advice" in the Lab analysis report. In case of uncertainty or unclear or inapplicable recommendations, contact CFM Technical.

Shore action on off spec Bunkers:

CFM SQE in consultation with CFM Technical will inform the vessel's Flag State and appropriate coastal authorities with all possible information on the off spec bunkers and get an Exemption or Consent from them.

BUNKER TANK SOUNDING

It is the Chief Engineer's responsibility to ensure that the procedure in IMS is implemented and complied with. The C/E is responsible for correct FO tank soundings with bunker calculations and **reporting to the Master of actual figures** regardless of previous remaining onboard (ROB) records and expectations. Any doubtful result (big discrepancy) should be reported to the TSI immediately.

RESERVE BUNKERS

GUIDELINES

- Bunkers, including Reserve Bunkers will be stemmed by the charterers or Company, according to the Master's nomination.
- Clipper Fleet Management has adopted Clipper Fleet Performance System. Appropriate reporting as required by the software to be carried out by the Master. Part of the voyage planning is to ensure sufficient bunkers for the intended voyage.
- Bunkers to be stemmed, should be calculated by the Chief Engineer, in close consultation with the Master.
- When calculating minimum bunker requirements, calculations must be made as if the Shaft Generator is out of operation.

The following bunker reserves must be included:

- Minimum 5 days steaming at full speed in World Wide Trade – There is Diesel Oil for minimum two days.
- Minimum 2 days steaming at full speed in Coastal Trade – Diesel Oil.
- Minimum 1 day steaming at full speed in Baltic Trade.

Diesel Oil. Deviation from above is not allowed unless the Master conducts a proper risk analysis in cooperation with the Charterers/Operators and the Vessel's Technical Superintendent. Finally an approval must be issued by the **Technical Superintendent**.

BOILER WATER TREATMENTS

RESPONSIBILITY

It is the responsibility of the Chief Engineer to maintain the Cooling water and Boiler water in good condition at all times.

Cooling Water

The cooling water testing should be carried out, on a regular basis, at intervals not exceeding a week. In case the water test results are not satisfactory tests need to be done more frequently and treatment chemicals added.

Boiler Water

The testing of the boiler water needs to be carried out every day. Based on the results and recommendations from makers, the boiler may need to be blown down from the bottom or top (scum blow down). This will reduce the salinity and improve the condition of the water.

At the end of the month a water treatment log shall be filled up and sent to the Technical department for review. The reports received after review from the chemical supplier should be filed on board.

In case the results of the water quality test are incorrect the Technical Department should be informed immediately. If the results remain erratic for long periods of time the samples are to be landed for testing and review ashore.



ENGINE LUBRICATING OIL ANALYSIS

GUIDELINES

- Maintaining the quality of the lubricating oils in the various systems is of utmost importance.
- The quality of the lubricating oil will determine the service life of the machinery or its components
- The samples, of all relevant systems, are to be forwarded for testing at an interval of every **three months**.
- The analysis results should then be scrutinized and corrective action as suggested by the laboratory must be initiated.
- In case of any doubt or discrepancy, or non-receipt of shore test report please contact the Technical Department immediately.
- All records of forwarding letter, analysis results are to be maintained on board.



Weekly - If a lubricating system is getting contaminated with water, it will be too late to wait for the analysis results, before irreparable damage can take place. Therefore all the relevant system lubricating oils must be tested on board for the water content. This should be done weekly and recorded in the vessel's PMS.

SMOKE EMISSIONS AND PERFORMANCE MONITORING, EMISSION CONTROL AREAS (ECA)

- Emissions of smoke and soot are minimized by systematic maintenance and inspection routines for the Engine-room machinery and boilers. The Load Distribution of the Auxiliary Engines shall be adjusted to ensure minimum smoke emission at all times.

ENGINE AIR POLLUTION

- These requirements are regulated by MARPOL Annex VI and for the certification of the vessel with International Air Pollution Prevention (IAPP) certificate. Local regulations may also apply over and above the MARPOL requirements.
- Ozone Depleting Substances (ODS): The refrigerants used on board broadly fall into this category.

PURCHASING

- All the requisitions for items required on board the vessel shall be done through the purchasing module which is an electronic requisitioning system.

ORDERING OF UNIFORMS & WORKING GEAR

- Standard stock level is to be maintained for all sizes (see Uniform/Working Gear Matrix). Stock level should be good for a three (3) month requirement.
- **Purchase Requisition**
Upon depletion of uniform/working gear, a purchase requisition should be filled out in Sertica.

EMERGENCY PROCEDURES & EXECUTION OF DRILLS, COMPANY EMERGENCY PREPAREDNESS

GUIDELINES

- In order to handle emergencies successfully, it is necessary for the vessel's staff to be familiar with their various responsibilities, as well as with the location and use of the emergency equipment as is available on board. To achieve this, a program of training and drills is essential.
- Flag State, SOLAS, Company and other International requirements.
- Information regarding drills and training should be entered in the electronic PMS system as well as the Deck Log Book.
- Company Emergency Response Team (CERT):
 - The Company personnel ashore are appointed to be members of the CERT, as described in the Company's Contingency Plan. The CERT shall react to situations as arising in rational manner and without delay to provide for the necessary support to:
 - A vessel in distress,
 - Relatives of the on board personnel,
 - Adept handling of public relations matters,
 - Any other matters that may arise during and as a part of the emergency

Kindly also refer to IMS Document No: 08.01.01

PLANNED MAINTENANCE SYSTEM

GUIDELINES

The Chief Engineer is responsible for proper upkeep of the planned maintenance system. The Technical Department is responsible for monitoring of the system and providing support to the vessel.

All records in the PMS must be kept up to date at all times. The work instructions should be followed as detailed within the PMS.

Overdue Planned Maintenance Items

The Company has a procedure to regularly monitor overdue items / jobs in the planned maintenance system. Please refer to IMS Document : 10.01.0

Routine maintenance is carried out in accordance with the planned maintenance system.

Inventory

The PMS contains a module for requisition, requirements for which have been detailed in the purchasing procedure within the IMS.

SURVEYS & CERTIFICATION

GUIDELINES

The **Master** with the **Chief Engineer** are responsible for the monitoring the status of Survey and Certification. The **Technical Department** is responsible for monitoring and follow up to the vessel to carry out the required maintenance.

The master shall prepare a monthly status report for the certificates on board the vessel. This will include Certificates as required for her trade Class and Equipment onboard.

The Technical Department shall review:

- Monthly status report as received from the vessel.
- Survey status report / quarterly listing as received from the relevant Classification Society.

The Technical Department shall on the basis of the above:

- Keep the vessel appraised of the same.
- Plan the surveys and certification of the vessel. Major survey items will be planned well in advance providing sufficient notice for preparation to the vessel, keeping in mind the trading patterns of the vessel.

The company shall arrange all surveys to be conducted prior expiry of term, target date or certificate.

Recommendations, Deficiencies and Findings given by Class In case of a recommendation, deficiency or condition of class being reported, the master is to inform the Technical Department as soon as possible who in turn will arrange the necessary support.

Reporting to Company The Certificate Status Report to be sent to SQE and Technical Departments every month end.

TECHNICAL VESSEL INSPECTIONS

GUIDELINES

- The Company's Superintendent shall visit the vessel at least **twice** a year at an interval of not more than six months.
- To allow for uncertainties in the vessel trading pattern and availability of resources, an allowance of +/- **one** month has been incorporated.

The scope of the inspection will include all areas of the vessel.

As a guidance following shall be included:

- Inspection of the PMS.
- Ascertain the operational status of the vessel by observing various equipment in operation and reviewing associated records,
- Operational readiness of all Fire Fighting and Life Saving appliances.
- Health and hygiene onboard.
- Formal SEEP Meeting to ascertain the safety standard on board.
- Evaluation & Review of the Environment & Energy Management System including SEEMP and its compliance. Findings recorded are to be brought to the notice of the Shipboard Management for corrective action.

Findings recorded are to be brought to the notice of the Shipboard Management for corrective action. As a part of the inspection an **appraisal** shall be carried out of the 4 senior Officers i.e. Master, Chief Engineer, Chief Officer and second engineer.

An inspection report to be prepared as per the Technical Vessel Inspection Form.

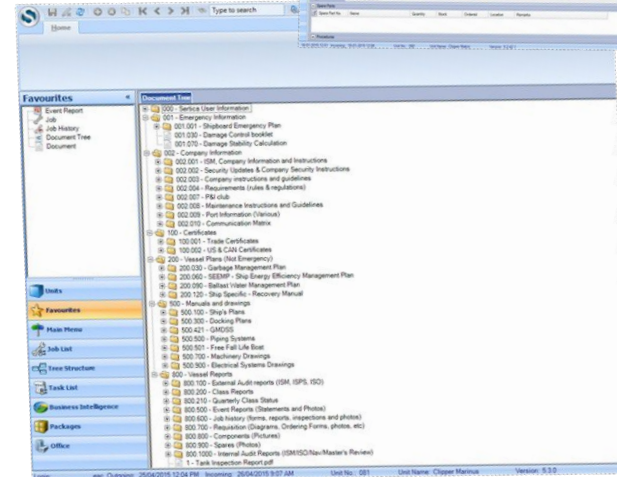
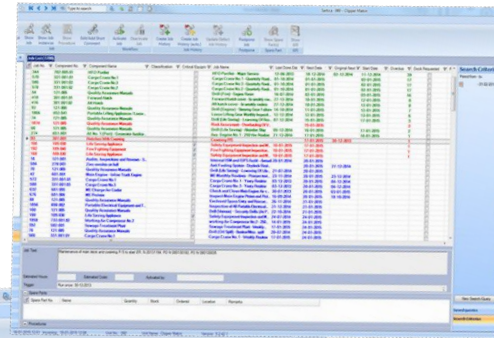
CRITICAL SYSTEMS AND ASSOCIATED EQUIPMENT

The Company appreciates that each vessel is different, and hence critical items shall be identified across the fleet and individually for each vessel through a comprehensive risk assessment should be carried out.

The Critical Systems and their associated Equipment essential for the safe operation of the vessel have been identified as follows:

- Alarm Systems
- Anchor Release and Heaving Equipment
- Emergency battery pack and charger
- Emergency bilge suction
- Emergency fire pump
- Emergency generator and controls
- Steering Gear or Emergency Steering Gear
- Emergency Position-Indicating Radio Beacon (EPIRB)
- Fire fighting systems (Foam, Water and CO2 plant)
- First start air compressor / air receiver
- Global Maritime Distress Safety System (GMDSS) equipment
- Lifeboats and launching equipment
- Oily water separator and oil monitoring equipment
- Remote Controls
- Significant Navigational Equipment
- Water tight doors

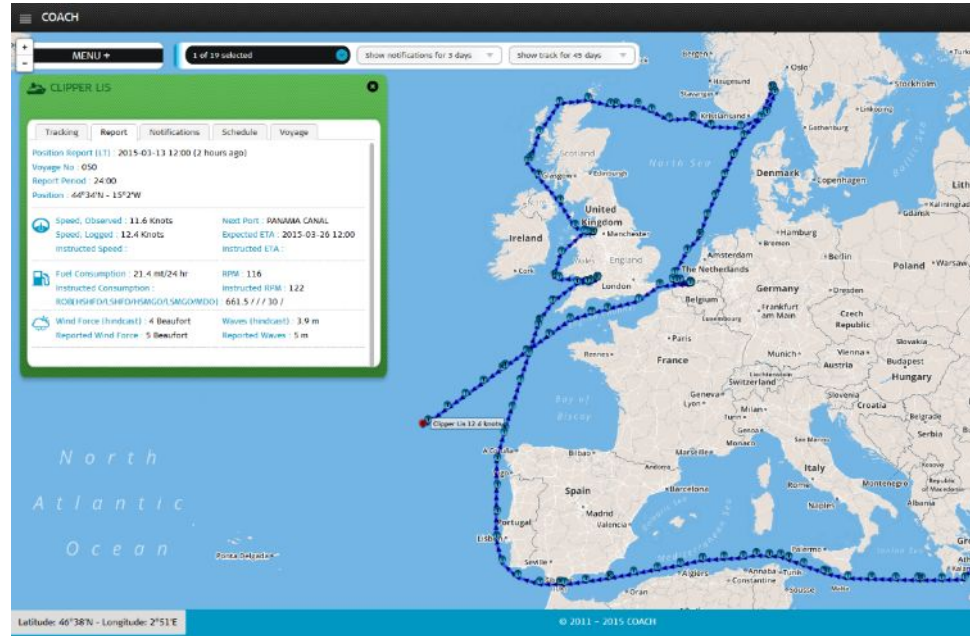
To ensure regular testing of the above mentioned critical systems checks should be carried out as per the requirements listed within the Company's PMS on a weekly, monthly and quarterly basis.



COACH

THE VESSEL PERFORMANCE MONITORING SOLUTION

- In-house developed performance monitoring solution based on easy standardized noon reporting
- Advanced performance analysis
- Voyage monitoring and alerts
- Timely hull cleaning yields 10-20% fuel saving after cleaning
- Reduced consumption on aux engines and boilers provides 5-10% saving
- Trim optimization saves 1-5%



MAJOR REPAIR AND DRY-DOCKING

GUIDELINES

The Technical Department will finalize along with the Ships staff the Dry Dock / Major repairs that have to be done and the location where it has to be done and quotations of the same.

While making the list of jobs, the ship staff should give as much information that they can give regarding the equipment, including spares required, preparation required, tank cleaning required etc. A well planned repair list, dry-dock list, which is made well in time, will go a long way in keeping the dry-dock expenditures to a minimum.

INSPECTION AND MAINTENANCE OF LIFTING APPLIANCES

In order to avoid loss of lives or damage to the vessel or her cargo all firefighting and life-saving equipment shall be kept in good working order and available for immediate use at all times.

All Lifting Equipment should be thoroughly inspected regularly. Whether used or not.

COMPETENT PERSON

In almost all regulation (SOLAS, FSS Code, LSA Code, various IMO circulars/ resolutions, Flag state regulation etc.) concerning inspection and servicing of Lifesaving appliances (LSA) and Fire-fighting equipment (FFE) there is a requirement that inspection and service of LSA and FFA is carried out by a Competent Person