



## 2<sup>nd</sup> Quarter 2016 – HSSE Bulletin

*Suggestions/opinion from ships invited so that additional information can be added.*

### **BBS – Best SPIRIT Card Selection:**

*The BBS system has replaced the previous Crew Commendation Award system. We deeply value the good reports submitted by the entire fleet (including TMS & TMM Vessel). These reports are an important motivation tool to foster the sense of pride into what we are doing and creating a sense of belongingness to the organization. Amongst the various reports submitted in the 1st quarter of 2016, the following three SPIRIT cards have been selected and will enter the final round of 12 SPIRIT cards which will be reviewed after the 3<sup>rd</sup> Qtr of 2016 for final selection of the 3 best SPIRIT cards for the yearly awards of \$1000 each.*

*1<sup>st</sup> Off was assisting Ch Off with WWT and saw AB counting the number of rags before proceeding into the cargo tank, and once again prior leaving the tank upon completion of mopping operation so as to ensure no rags are left behind. 1<sup>st</sup> Off commended the AB for the good practice shown and recommended the rest of the crew to follow same.*



*1<sup>st</sup> Off Fahad  
Iqbal*



*A/B Zaw Min  
Thant*

*AB noted surveyor had intended to draw cargo sample of static cargo by using a sampler without grounding cable. AB immediately stopped the surveyor and informed him that it is unsafe to proceed and informed Duty Officer. Finally the vessel sampler having a grounding cable was used instead and the operation was safely completed.*

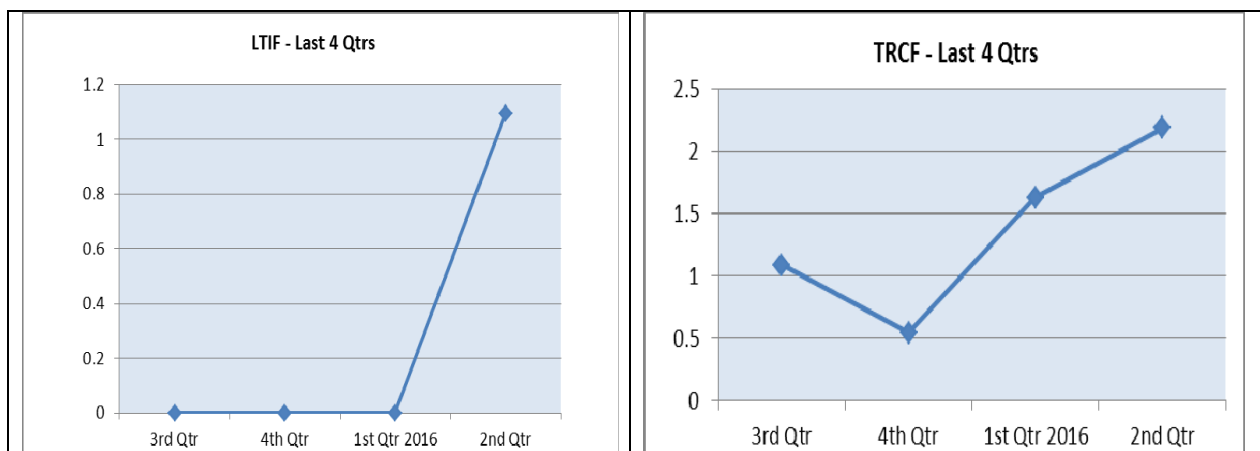
*AB stopped another crew who was attempting to empty a container with cargo residues into a drum already containing a different grade residue after completion of manifold sampling. AB reminded the crew to empty the container in a separate empty drum and further explained the dangers of mixing chemical samples.*



*A/B Than Naing  
Oo*

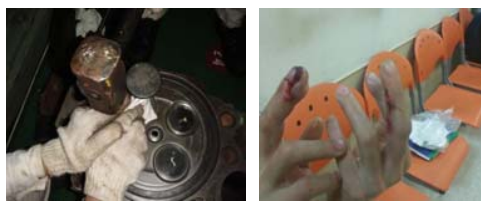
*(The text of the above acts of safety has been modified from the original for easier reading and understanding)*

## Crew Injuries / Fatalities:



**For the year 2015, fleet LTIF was 0.27 and TRCF was 1.24. The target for the year 2016 is an average of previous 3 yrs. Hence LTIF of 0.45 & TRCF of 1.56 is targeted.**

2/E injured his both right and left middle finger during G/E overhaul. 2/E was reported holding the valve guide extractor tool and Oiler was hammering same whilst dismantling the exhaust valve guide from cylinder head. The hammer slipped and hit the 2/E finger instead. First aid was administered onboard together with pain killers, and was sent to doctor upon arrival next port for further treatment. As per medical report 2/E sustained nailbed and finger laceration of 5 cm and 2cm, and declared unfit for 5 days. 2/E was signed off in order for further follow up and treatment at his country of domicile. Case is treated as LWC



Ch Eng suffered severe burns on his forehead, chest, both hands, arm and back due to hot water splash when opening the drain cooler cover for inspection. Reportedly the check was initiated to confirm suspected leak in the drain cooler tube when excessive chloride content was found from return steam line of cascade tank whilst cargo tank

steaming was in progress. First aid was rendered onboard and Ch Eng was sent to doctor immediately upon berthing the following day. As per medical report Ch Eng sustained 1<sup>st</sup> and 2<sup>nd</sup> degree burns and hospitalized for treatment and required additional consultation from a plastic surgeon for his skin condition. Ch Eng was subsequently repatriated once declared fit to travel for further doctor follow up and medication at his country of domicile. Case is treated as LWC.



1<sup>st</sup> Eng right hand middle finger got crushed when it got caught between the engine room entrance door and frame when the door. Reportedly 1<sup>st</sup> Eng had inadvertently left his right hand fingers close to the door frame whilst opening door with his left hand, and had lost grip of the door latch which allowed the door to slam shut. First aid was rendered onboard and 1<sup>st</sup> Eng was sent to doctor upon arrival port for further checkup. As per doctor's medical report 1<sup>st</sup> Eng sustained a fracture and was given a splint to protect his middle finger. 1<sup>st</sup> Eng was placed on

light duties as per the medical report.  
Case is treated as RWC



exposed whilst he was attending to mooring station for shifting at dry dock. First aid rendered onboard and 2/O was sent for doctor consultation. As per doctor's report the wound was stitched and dressed, and further dressing was required 3 days later followed by removal of the stitches 2 weeks later. He was reported to have fully recovered. Case is treated as MTC

2/O sustained a laceration of 5 cm above his right leg knee when the area had brushed off with razor wire which was left



# (LTIF = Lost time Injuries Frequency as per OCIMF. This in general terms means number of injuries for every 1million exposure hours in the fleet. LTI includes injuries resulting in lost time, fatalities, severe injuries resulting in ability to work ashore/onboard. TRCF = Total Recordable Case Frequency as per OCIMF. This is also number of such injuries per 1million exposure hours in the fleet. It includes LTIF injuries as above and RWC- Restricted Work Day Case & MTC - Medical Treatment Case )

#### **Near Miss:**

Near miss reporting in the 2<sup>nd</sup> quarter has been satisfactory. The annual target is 24 and crew are to be reminded that near misses should be reported without any fear or favour. There are only a few vessels which have to be sent reminders for near miss reporting. The following near misses may be noted by the SQC as they can be considered as significant learning or high potential consequence if the conditions were slightly different.

Vessel was loading various chemicals at Botlek, Rotterdam and manifold samples were being taken by vessel and surveyor. Crew attempted to collect balance samples accumulated in the plastic tray during sampling into another container already containing a different cargo sample. Fortunately Bosun noted the crew action and immediately stopped him from doing so and reported the matter to Ch Off. Ch Off came to manifold and immediately briefed the crew on dangers and hazards of mixing chemical samples. Master further convened a safety meeting and reiterated on safety aspects when handling multiple cargo samples, and closer supervision from responsible officer.

Vessel conducted ballast water exchange whilst at sea enroute from Stockton to Vancouver BC. The operation was almost completed with only FPT tank remaining and to be stopped once at 95% tank level. Ch Off was monitoring the operating and upon FPT reached 70% level at 1830hrs had handed over to OOW on bridge and instructed OOW to stop the ballasting upon reaching 95% level. However at 2010hrs OOW informed Ch Off that forward bosun store bilge alarm had been activated. Ch Off immediately informed Engine Room to stop the ballasting of the FPT as it was still in progress, and proceeded forward to investigate. Approximately 150m<sup>3</sup> of ballast water was found to have overflowed into the Bosun store from the FPT sounding pipe. Master convened a safety meeting and instructed responsible officer to be vigilant and

*attentive whilst such operation is in progress and ensure close monitoring is effected until required operation is safely completed. Such overflow could have easily damage the forward machinery.*

*Smoke was noted coming from garbage drum and further checks revealed that it was caused by cigarette butt which was not properly extinguished. Ch Off and Ch Cook immediately smothered and extinguished the smoke with some water. Master immediately conducted a safety meeting and briefed all officers and crew onboard on fire safety and to ensure cigarette butts are properly extinguished in the ash trays before being thrown into the garbage drums.*

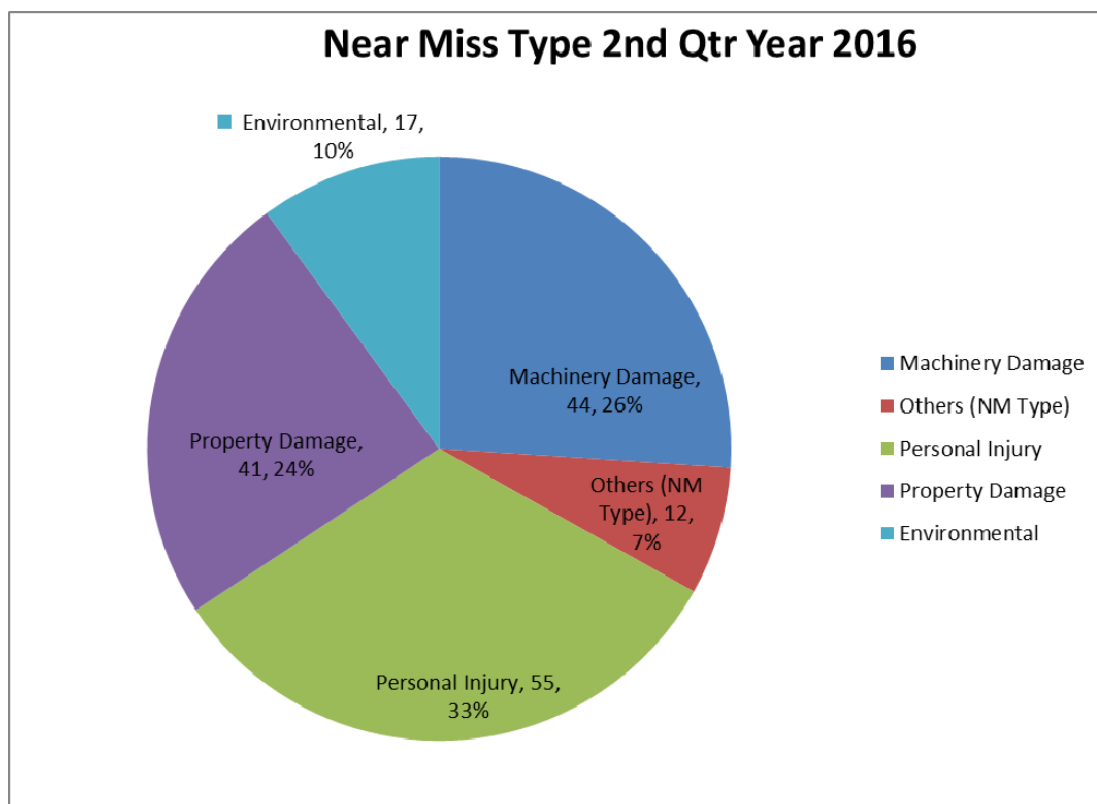
*The M/E & G/E FO 2<sup>nd</sup> strainer high differential pressure alarm was activated same time whilst vessel encountered rough weather in Indian Ocean. Duty Eng reported that he shall open the M/E and G/E 2<sup>nd</sup> strainer bypass valve, however 1<sup>st</sup> Eng intervened and informed Duty Eng not to open the bypass valve directly but instead to change and clean the FO 1<sup>st</sup> strainer first. Upon doing so the earlier activated alarm had stopped. 1<sup>st</sup> Eng educated the Duty Eng that the generator fuel oil will be cut off if the bypass valve was opened directly and black out will occur, and generator fuel oil changeover from HFO to MGO changeover needs to be carried out first to restore the abnormal condition. 1<sup>st</sup> Eng further educated all other Engineers on the subject matter.*

*Vessel received voyage menu for next loading from Operators and confirmed all the required cargo details. Upon arrival Spore Exxon berth for loading, Master*

*noted from shippers MSDS that particular parcel for loading was listed under different pollution category. Operator was immediately informed. Vessel re-checked the fitness certificate and re-confirmed parcel can be safely loaded and commenced operations accordingly upon amending the loading documents. Master held a safety meeting and reminded officers on the importance of verifying shippers MSDS without fail before loading operations.*

*Vessel was conducting tank cleaning operations at sea. Ch Off noted the 5S DB WBT remote valve in open position. Ch Off tried to close the valve from CCR, however when unable to do so re-tried closing the valve manually from the local valve control unit in Foam Room. The valve was noted closing initially, however upon some time had again re-opened slowly. Similarly other F.O. & D.O. valves could not be opened and closed either. Upon further investigations it was found that the hydraulic oil tank for remote control valve was empty. The tank was topped up immediately and the valves could be opened and closed smoothly. Ch Eng conducted a safety briefing to all Engineers on the importance of routine checks and ensuring the hydraulic oil tank is kept at the required level at times.*

The following pie chart indicates the analysis of the near miss in this quarter. It may be noted that Others (In Near Miss Type chart) includes the exceptions to rest hours.



**Learning from Incidents:**

***There was no serious incident in this quarter***

**Amendments to QSMS:**

*In this quarter, one DTN was issued.*

*DTN 01/2016: The changes included M01 Ch 2 revised QSMS forms, Ch 4 Sailing visit by Supt, Ch 6 Drill schedule vs emergency situation / procedure, Ch 6 App 1 Alternate position for key ranks identified, Ch 11 Refresher training for office and ship staff amended, OJT & OBT scope amended, M03 Various checklist & appendix amended for ECDIS, M04 Amended procedure for snap back zone, amended RA form, M05 Sec 5 Amended procedure for running cargo pumps in parallel, M06 App 1 Garbage Management Plan amended to include person in charge, M08 amended to include definition for corrective and preventive action, with procedures for sharing incidents with various groups, M09 App 6 various Emergency Flow Chart reference amended to meet CDI 8<sup>th</sup> Edition, M10 Duplication removed, M16 general review conducted to include scope of navigation audit, Marine Supt visit and new Marine Inspection Report*

**Amendments to EMS:**

*In this quarter, one DTN was issued.*

*DTN 01/2016: The changes included revised procedures as per Class NK review & annual review of targets, inclusion of internal audit checklist for office.*

### **Other Information to the fleet:**

*In addition to the circulars, general warnings, navigation warning, technical information & technical warning, following information was disseminated to the fleet in this quarter which is of prime importance.*

*19<sup>th</sup> Apr: Company response to vessels feedback on Circ 02-2016*

*25<sup>th</sup> Apr: 2<sup>nd</sup> Qtr 2016 Shell LET – Lifting & Hoisting*

*03<sup>rd</sup> May: Reminder on revised M03 App 9 ECDIS rev 3 as per DTN 01/16 ( part 1 & 2 )*

*09<sup>th</sup> May: Notice on various software installation in the fleet in phases, including new QSMS*

*09<sup>th</sup> May: Notice on revised MEPC 2 / Circ 21 / Rev 1*

### **Health Bulletin**

Seafarers working on seagoing vessels in cold weather can be exposed to serious health hazards. Whenever temperatures drop decidedly below normal and as wind speed increases, heat can more rapidly leave the body which could lead to health problems. Prolonged exposure to freezing or cold temperatures may cause serious health problems such as hypothermia, cold water immersion and frostbite. In extreme cases, such exposure can lead to death. Danger signs include uncontrolled shivering, slurred speech, clumsy movements, fatigue and confused behavior.



#### **Hypothermia**

When exposed to cold temperatures, your body begins to lose heat faster than it can be produced. Prolonged exposure to cold will eventually use up your body's stored energy. The result is hypothermia, or abnormally low body temperature. A body temperature that is too low affects the brain, making the victim unable to think clearly or move well. This makes hypothermia particularly dangerous because a person may not know it is happening and will not be able to do anything about it.

#### **Cold Water Immersion**

Cold water immersion creates a specific condition known as immersion hypothermia. It develops much more quickly than standard hypothermia because water conducts heat away from the body 25 times faster than air. Hypothermia can occur in any water temperature below 21°C. Survival times can be lengthened by wearing proper personal floatation device, life vest, immersion suit and having a means of both signaling rescuers (strobe lights, personal locator beacon, whistles, flares, waterproof radio) and having a means of being retrieved from the water.



#### **Frostbite**

Frostbite is an injury to the body that is caused by freezing. Frost bite causes a loss of feeling and color in the affected areas. It most often affects the nose, ears, cheeks, chin, fingers, or toes. Frostbite can permanently damage body tissues, and severe cases can lead to amputation. In extremely cold temperatures, the risk of frostbite is increased in workers with reduced blood circulation and among workers who are not dressed properly.

#### **Recommendations for Seafarers**

Seafarers should avoid exposure to extremely cold temperatures when possible. When cold environments or temperatures cannot be avoided, seafarers should follow these recommendations to protect themselves from cold related emergencies:

1. Eating well-balanced meals will help seafarers stay warmer. Avoid alcoholic or caffeinated beverages - they cause the body to lose heat more rapidly. Instead, drink warm, sweet beverages or broth to help maintain body temperature.
2. Wear appropriate clothing.
  - Wear several layers of loose clothing. Layering provides better insulation.
  - Tight clothing reduces blood circulation. Warm blood needs to be circulated to the extremities.

- When choosing clothing, be aware that some clothing may restrict movement resulting in a hazardous situation. (Make sure to protect the ears, face, hands and feet in extremely cold weather)
  - Boots should be waterproof and insulated.
  - Wear a hat over your safety helmet; it will keep your whole body warmer. (Hats reduce the amount of body heat loss)
3. Move into warm locations during work breaks; limit the amount of time outside on extremely cold days.
  4. Include a thermometer and chemical hot packs in your first aid kit.
  5. Avoid touching cold metal surfaces with bare skin.
  6. Use the buddy system - work in pairs so that one worker can recognize danger signs.

Remember, seafarers face increased risks when they take certain medications, are in poor physical condition or suffer from illnesses such as diabetes, hypertension or cardiovascular disease.

### **Regulatory Information :**

*SOLAS II-2/4.5.5 & II-2/16.3.3, FSS Code & IBC Code- All NEW tankers wef 1<sup>st</sup> Jan 2016 more than 8K DWT to have high capacity nitrogen generator. Most Charterer (Ex- Shell) insist to use if fitted during carriage of low flash cargo. Presently apply during carriage, unloading and tank cleaning, but ongoing debate to extend during loading as well.*

*IBC Code – Revised from 1<sup>st</sup> Jan 2016 – Certification of Protection (Inhibitor Certificate) MUST state whether the additive is oxygen-dependent and if so, the minimum level of oxygen required in the vapour space of the tank for the inhibitor to be effective to be specified.*

*MARPOL & IBC - New tankers constructed after 1 Jan 2016 require approved instrument with applicable intact and damage stability requirements. Existing tankers – 1<sup>st</sup> survey after Jan 2016 but in any case before 1 Jan 2021.*

*New format of IAPP certificate to be issued upon expiry of current certificate after 1 Mar 2016. Amendments to NOx certification status of engines.*

*Three emission control areas (ECA) have been announced by the Chinese Authorities. These are Yangtze River Delta, Pearl River Delta & Bohai-rim Waters. WEF 1<sup>st</sup> Apr 2016, in Yangtze River Delta will require ships to use fuel oil with a sulphur content not higher than 0.5% m/m, and will encourage ships to use fuel oil with a sulphur content not higher than 0.1% m/m, during mooring in the core ports; it will also encourage ships to use fuel oil with a sulphur content not higher than 0.5% m/m when entering into the ECA. The other 2 areas not yet implemented. Record same as other ECA areas- documented procedure, log book entries, etc. to be maintained*

*Multi gas detectors to be carried on board from 1<sup>st</sup> Jul 2016. The multi gas meter should as a minimum test for oxygen, flammable gas, CO & H2S and to be used from the **outside to render the space safe for entry.** (5PID). They should not be part of PPE ( Personal gas monitors). Implication - 2 Monthly drills to include the usage of multi gas meter. Confirm setting of alarms and familiarization of its usage by responsible officers.*

*New format of SEQ certificate (Record of Safety Equipment) to be issued upon expiry of the current certificate after 1<sup>st</sup> Jul 2016. Total number of persons accommodated by free-fall lifeboats to be stated.*

WEF 12<sup>th</sup> Dec 2016 amendment to MLC will come into force. Appropriate financial security must be provided to cover - Repatriation of seafarers following abandonment by ship owner ( Reg 2.5) and Shipowners liability to assure compensation for contractual claims following death or disability of seafarer ( Reg 4.2)

STCW 2010 Convention: Came into force 1 Jan 2012 but there is a 5 year transitional period granted for taking full effect from 1<sup>st</sup> Jan 2017. New certification requirements for able seafarers (watchkeeping certificate for ratings) to be in accordance with II/5 (deck) & III/5 (engine), along with Security Training. New POLAR code will be drafted and apply to vessels trading in such areas. Entry into force from 1<sup>st</sup> Jan 2017. Various criteria for ship structure, sub division, machinery, etc.

SOLAS II-2/10 – Communication Equipment for firefighting team- Minimum of 2 two-way portable radio telephone (walkie –talkie) intrinsically safe type to be available for fire fighting team. New Ship to come into force 1<sup>st</sup> Jul 2014. Existing ships prior 1<sup>st</sup> Jul 2018

FSS Code-Breathing Apparatus-BA set should be equipped with audible alarm and a visual or other device before volume of air is reduced to 200 liters. NEW vessels from 1<sup>st</sup> Jul 2014. EXISTING vessels prior 1<sup>st</sup> Jul 2019. No implications as our vessels have the alarms.

Ballast Water Management -The main impact of these requirements is that ballast water exchange will be phased out and ballast water treatment will be the only remaining option for complying with the Convention. It will come into force (EIF) 12 months after ratification. Presently close to the figure of 35% of world fleet. Treatment Plant to be installed by 1<sup>st</sup> IOPP renewal survey after EIF. US have earlier implementation subject to exemptions.

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