



NYK Maritime College



# NMC-01[N] NiBiKi

## e-SMS Familiarization Training

Rev 3.0 01/12/2010

NYK SHIPMANAGEMENT PTE LTD



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# Introduction



Name /Rank / Experience ?

What are your expectations from this course ?



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# Objectives

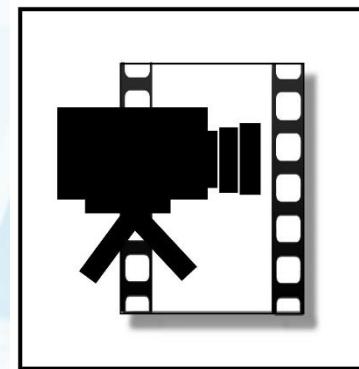
- Familiarize with
  - ✖ NYK Line Unified NiBiKi e-SMS
  - ✖ Navigating the NiBiKi e-SMS
  - ✖ NYK Nav 9000, EMS, STARS, Campaigns
  - ✖ Case Study
- Obtain feed-back



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# NYK Group Values

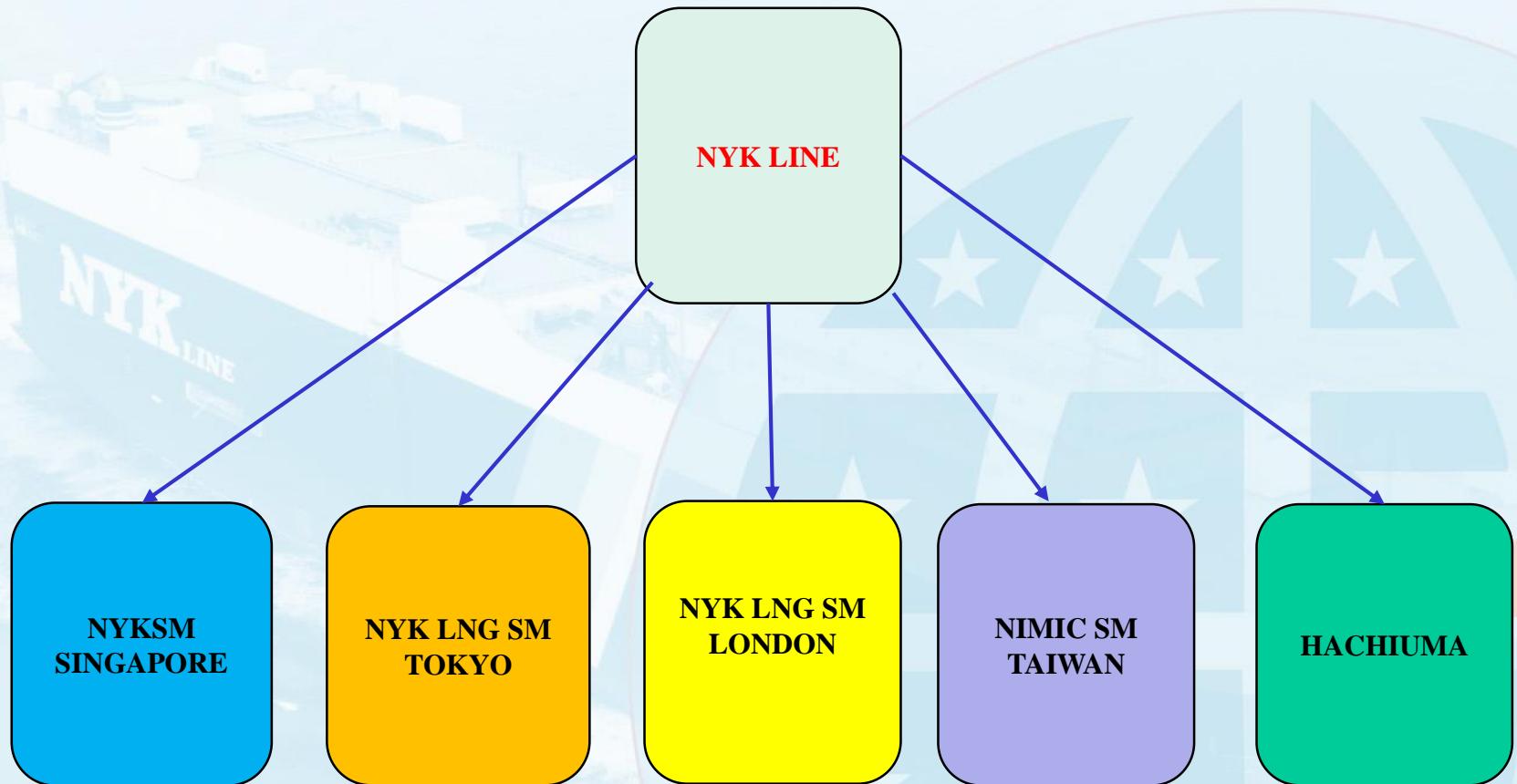




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# COMPANY PROFILE





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## COMPANY PROFILE

- NYK LINE
- Hachiuma
- NYKSM Singapore
- NYK LNG SM UK
- NYK LNG SM JP
- NIMIC Ship Mgmt

- Established 1885
- Merged with NYK in 1964
- Established Oct 2001
- Established Oct 2006
- Established Oct 2006
- Established Oct 2008



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# COMPANY PROFILE



As of April 2019

<b>NYKSM Singapore</b>	148 vessels
Full Technical Mgmt	
Crewing Agency	35 vessels
LNG Manning	40 vessels
<b>NYK LNG SM Tokyo</b>	18 vessels
<b>NYK LNG SM London</b>	13 vessels
<b>NIMIC SM</b>	4 vessels
<b>GAZ Ocean</b>	5 vessels
<b>AHLERS (LNG Bunker vsl)</b>	1 vessel



NYK Ma



## NYK SHIPMANAGEMENT PTE LTD. (as of Jan'18)

DRY CARGO FLEET 'A'	37
DRY CARGO FLEET 'B'	31
DRY CARGO FLEET 'C'	19
DRY CARGO FLEET 'D'	11
TANKER FLEET 'A'	11
TANKER FLEET 'B'	16
TANKER FLEET 'C'	19
LNGC –MGT	04
TOTAL	148 vessels



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# COMPANY PROFILE



- NYKSM Singapore

## ORGANIZATION CHART



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# What is ISM Code ?

- A Regulation or a Guideline ?
- Is it mandatory ?
- Says who?





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# ISM

Incorporated as SOLAS Ch. IX in May'94

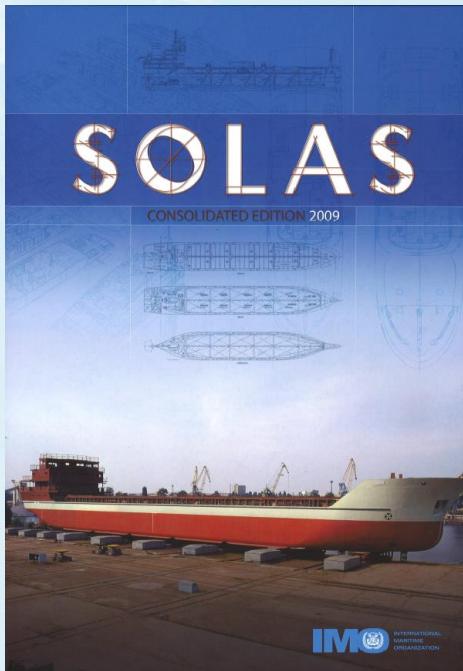
Entered into force 1<sup>st</sup> July 1998 (Amended Dec 2000)

Revised ISM Code entered into force 1<sup>st</sup> July 2002

Amended vide RESOLUTION MSC.273(85) w.e.f 01<sup>st</sup> July '10

Amended vide RESOLUTION MSC.353(92) w.e.f 01 Jan '15

**"International Management Code for the Safe Operation of ships  
and for Pollution Prevention"**



## Chapter IX





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# Why ISM?

## March 6, 1987



Mar 6, 1987 "The Herald Of Free Enterprise" capsized outside Zeebrugge harbour minutes after departure due to water ingress through an bow door ..... 193 lives were lost !



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## What does ISM aim to ACHIEVE?

- **Safety at Sea**
- **Prevent human injury / loss of life**
- **Avoid damage to environment and property**
  
- A uniform level of care by the **COMPANY** to protect the crew, ship and environment from damage / loss through poor management.



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# What does ISM tell us ?

- It tells us what to *achieve*

(not what to do)



- It is a *model* and the implementation process may vary from Company to Company



# WHY WE MUST HAVE AN SMS?

- *ISM Code states ... "Every Co. **MUST** develop, implement and maintain an SMS including.....*
- A Safety and Environment Protection Policy
- Instructions and Procedures to ensure safe operation of ships and environment protection
- Defined levels of authority and lines of communication.
- Procedures for
  - ✖ Reporting accidents and non-conformities
  - ✖ Responding to emergencies
  - ✖ Internal audits and management reviews



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# HOW DOES NYKSM ACHIEVE SAFE OPERATIONS ?

Mandatory  
regulations e.g.  
SOLAS, MARPOL,  
STCW, ISM etc

Non-Mandatory  
activities e.g  
ISO14001,  
ISO9001-2015,  
TMSA, CMS,  
SIRE etc

Own Initiatives  
including e.g.  
NAV 9000,  
Green Policy,  
NYK STARS  
Power + etc



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# Elements of ISM Code

1. General
2. Safety and environment protection policy
3. Company responsibilities and authority
4. Designated person (s)
5. Master's responsibility and authority
6. Resources and Personnel
7. Shipboard operations
8. Emergency preparedness
9. Reports and analysis of Non conformities, Accidents and Hazardous Occurrences
10. Maintenance of the ship and equipment
11. Documentation
12. Company verification, review and evaluation
13. Certification and Periodical verification





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NiBiKi



## What is NiBiKi System?

NiBiKi Stands for – NYK’s Innovative Business Information and Knowhow Initiative

NiBiKi hosts the following:-

- DMS – Document Management System (SMS Manual, CIM, Company Circulars)
- Various Modules for Ship Shore Reporting ( E.g:- Risk Assessment, Incident Investigation, Management of Change, Near Miss reporting, Month end reporting etc.
- Data Analysis tool for capturing various activities – Future Developments



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NiBiKi



- SMS Manual
- ECDIS Operation Manual
- Crew Instruction Manual
- DMLC Part 2 related document
- Company circulars
- Ship Type Specific Cargo Operation Manuals of:
  - ❖ LNG
  - ❖ LPG
  - ❖ Oil Tanker
  - ❖ Chemical Tanker
  - ❖ PCC
  - ❖ Bulker



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NiBiKi - SHORE    X    +

https://www.nyk-nibiki.com/main

Individual User id and password  
to be entered

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**NiBiKi**  
"NYK's Innovative Business Information and Knowledge Initiative"

User ID

Password

LOGIN

Forgot Password/User ID      Version : NK.2.2.28.530

By clicking login you are agreeing to the [Terms & Privacy Policy](#).

Copyright © 2018 www.solverminds.com

Windows Start button    E-mail    File Explorer    Internet Explorer    Google Chrome    Microsoft Edge    Microsoft Word    Microsoft Powerpoint

3:47 PM    ENG    24/04/2019    20



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NiBiKi - SHORE    https://www.nyk-nibiki.com/main

**NiBiKi**  
NM - Maritime Business Inspection and Monitoring System

Dey Abir  
Vessel Manager  
s0636

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Module Search

Manuals & Info Sharing

Safety Management

Audit and Inspections

Task and Notification

Admin / Settings

Reports

Powered by  
**SOLVERMINDS**  
SOLUTIONS AND TECHNOLOGIES

NM-Total Reports(Last 30 days) 0

NM-Open 0

NM-Days since last Reported

IR-Days Since Last Reported

NM-Split by Department

LTS-Days Since Last Reported

LTI-Days Since Last Reported

NM-Split by Degree of Seriousness

The chart contains no data

The chart contains no data

Click on Manual sand Info Sharing.



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A screenshot of a computer screen displaying the NiBiKi software interface. The window title is "NiBiKi - Manuals & Info Sharing". The left sidebar shows a navigation menu with options like Dashboard, Manuals & Info Sharing (which is currently selected and highlighted in red), Sharing Admin, Safety Management, Audit and Inspections, Task and Notification, Admin / Settings, and Reports. The main content area shows two icons: "SMS & Circulars" (blue square with white speech bubbles) and "Feedback Respond" (orange square with a pencil). A green arrow points from a callout box to the "SMS & Circulars" icon. The callout box contains the text "Click on SMS and Circulars". The bottom taskbar shows various application icons and the system clock indicating 4:11 PM on 24/04/2019.

Click on SMS and Circulars



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# NiBiKi



Click on SMS and you will get a dropdown

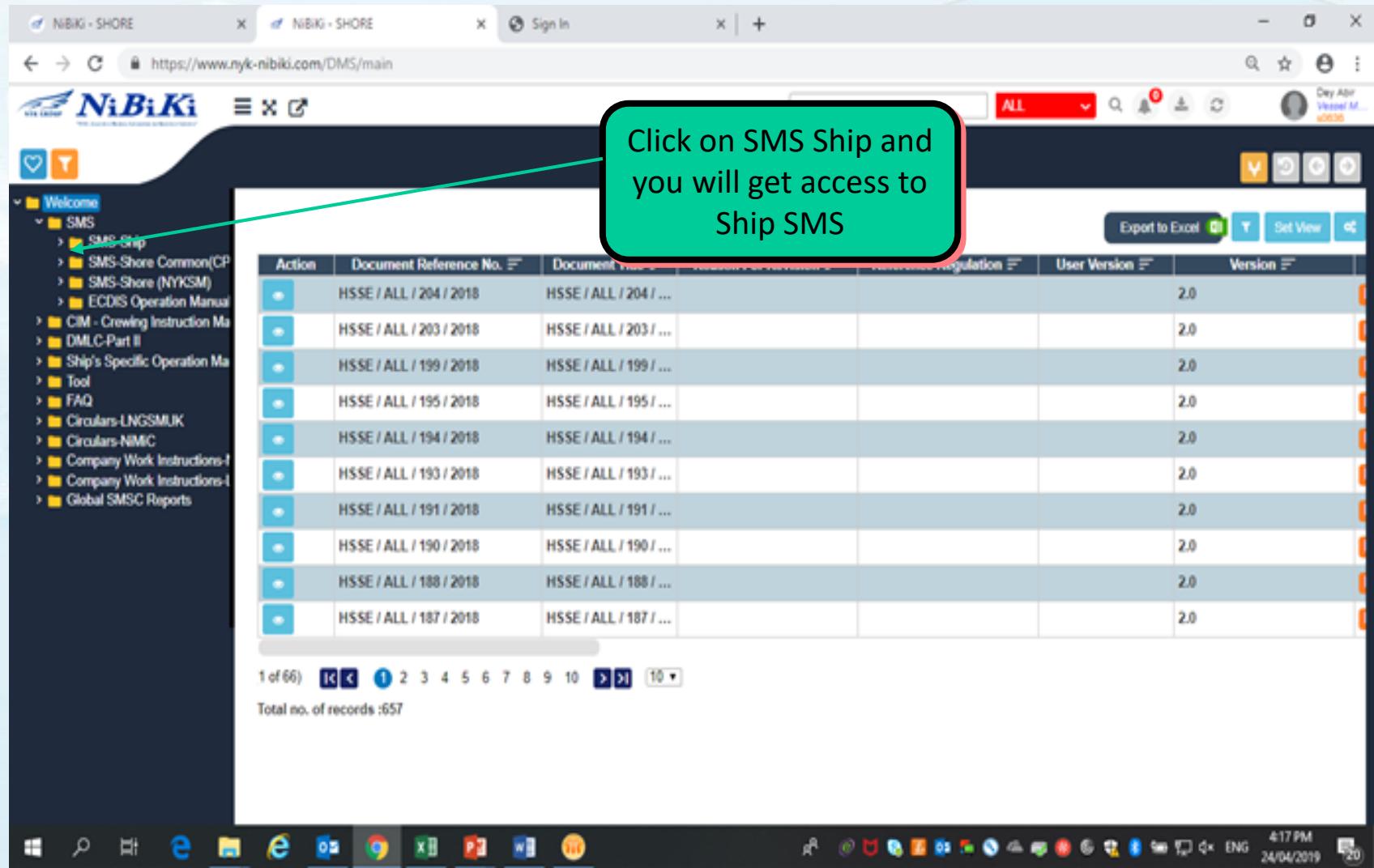
The screenshot shows a web browser window for the NiBiKi DMS system. The left sidebar has a 'SMS' item highlighted with a green arrow. The main content area displays a table of documents with columns: Action, Document Reference No., Document Title, Reason For Revision, Reference Regulation, User Version, and Version. Most rows are blue, except for one which is greyed out. The bottom of the page shows pagination from 1 to 10 and a total record count of 657.

Action	Document Reference No.	Document Title	Reason For Revision	Reference Regulation	User Version	Version
...	HSSE / ALL / 204 / 2018	HSSE / ALL / 204 / ...				2.0
...	HSSE / ALL / 203 / 2018	HSSE / ALL / 203 / ...				2.0
...	HSSE / ALL / 199 / 2018	HSSE / ALL / 199 / ...				2.0
...	HSSE / ALL / 195 / 2018	HSSE / ALL / 195 / ...				2.0
...	HSSE / ALL / 194 / 2018	HSSE / ALL / 194 / ...				2.0
...	HSSE / ALL / 193 / 2018	HSSE / ALL / 193 / ...				2.0
...	HSSE / ALL / 191 / 2018	HSSE / ALL / 191 / ...				2.0
...	HSSE / ALL / 190 / 2018	HSSE / ALL / 190 / ...				2.0
...	HSSE / ALL / 188 / 2018	HSSE / ALL / 188 / ...				2.0
...	HSSE / ALL / 187 / 2018	HSSE / ALL / 187 / ...				2.0

1 of 66) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) Total no. of records :657



Click on SMS Ship and you will get access to Ship SMS



Action	Document Reference No.	Document Name	Regulation	User Version	Version
•	HSSE / ALL / 204 / 2018	HSSE / ALL / 204 / ...			2.0
•	HSSE / ALL / 203 / 2018	HSSE / ALL / 203 / ...			2.0
•	HSSE / ALL / 199 / 2018	HSSE / ALL / 199 / ...			2.0
•	HSSE / ALL / 195 / 2018	HSSE / ALL / 195 / ...			2.0
•	HSSE / ALL / 194 / 2018	HSSE / ALL / 194 / ...			2.0
•	HSSE / ALL / 193 / 2018	HSSE / ALL / 193 / ...			2.0
•	HSSE / ALL / 191 / 2018	HSSE / ALL / 191 / ...			2.0
•	HSSE / ALL / 190 / 2018	HSSE / ALL / 190 / ...			2.0
•	HSSE / ALL / 188 / 2018	HSSE / ALL / 188 / ...			2.0
•	HSSE / ALL / 187 / 2018	HSSE / ALL / 187 / ...			2.0

1 of 66) Total no. of records :657



NIBIKI - SHORE NIBIKI - SHORE Sign In https://www.nyk-nibiki.com/DMS/main

NiBiKi NYK Group

SMS / SMS-Ship > 00:Quality Safety and Environment Protection Policy > Z-M-00.00.00 Quality, Safety and Environmental Protection Policy - NYK SHIPMANAGEMENT PTE LTD

ALL Duy Aibr Vessel M... s0636

Welcome

- SMS
  - SMS-Ship
    - 00:Quality Safety and Environment Protection Policy
      - Z-M-00.00 Quality, Safety and Environmental Protection Policy - NYK SHIPMANAGEMENT PTE LTD
    - 01:System Management Concept
    - 02:Shipboard Organization Responsibility and Duty
    - 03:Crew Management
    - 04:Change Management and Investigation
    - 05:Document Control, Recording and Reporting
    - 06:Process Monitoring and Review
    - 07:Navigation, Engine and Port Operation
    - 08:Environment Protection
    - 09:Safety, Health and Risk Management
    - 10:Operation and Maintenance of Equipment
    - 11:Crisis Management
    - Annex
  - SMS-Shore Common(CP)
  - SMS-Shore (NYKSM)
  - ECDIS Operation Manual
  - CIM - Crewing Instruction Manual
  - DMLC-Part II
  - Ship's Specific Operation Manual
  - Tool
  - FAQ
  - Circulars-LNGSMUK
  - Circulars-NiMiC
  - Company Work Instructions-NYKSM
  - Company Work Instructions-LNGSMUK
  - Global SMS Reports
- CIM - Crewing Instruction Manual
- DMLC-Part II
- Ship's Specific Operation Manual
- Tool
- FAQ
- Circulars-LNGSMUK
- Circulars-NiMiC
- Company Work Instructions-NYKSM
- Company Work Instructions-LNGSMUK
- Global SMS Reports

**SMS / Z-M-00.00.00 Quality, Safety and Environmental Protection Policy - NYK SHIPMANAGEMENT PTE LTD**

Version: 2018.09.28  
Approved By: MD & COO

**1. Quality, Safety and Environmental Protection Policy**

NYK SHIPMANAGEMENT PTE LTD (hereinafter called the "company") shall always make every effort to ensure the following-

- a) Safety of life at sea,
- b) Safe operation of ships,
- c) Environmental protection,
- d) Customer Satisfaction, and
- e) Employee Satisfaction

To achieve the above, the company's efforts shall be guided by the Quality, Health, Safety and Environmental Objectives. The Company shall prepare a "Safety Quality Management System" entitled as "Safety Management System (SMS)" conforming to the ISO9001: 2015 standard and ISM Code guided by procedures entitled "Concept of Safety Management System" with a strong focus on Safety, Quality and Environmental concerns.

All employees concerned to the system are hereby instructed to implement the Safety Management System and to execute their duties in accordance with the documented safety management system manual(s).

I will periodically review the Quality, Health, Safety and Environmental Objectives policy and objectives to ensure their continuing suitability, adequacy and effectiveness.

**2. Quality, Health, Safety and Environmental Objectives**

The Company is committed to achieve the following objectives to support the quality, safety and environmental protection policy:

- a) Provide a safe and healthy working environment on the vessels and our offices.
- b) Maintain an effective safety management system, providing safe practices in ship operation.

4:20 PM 24/04/2019 20



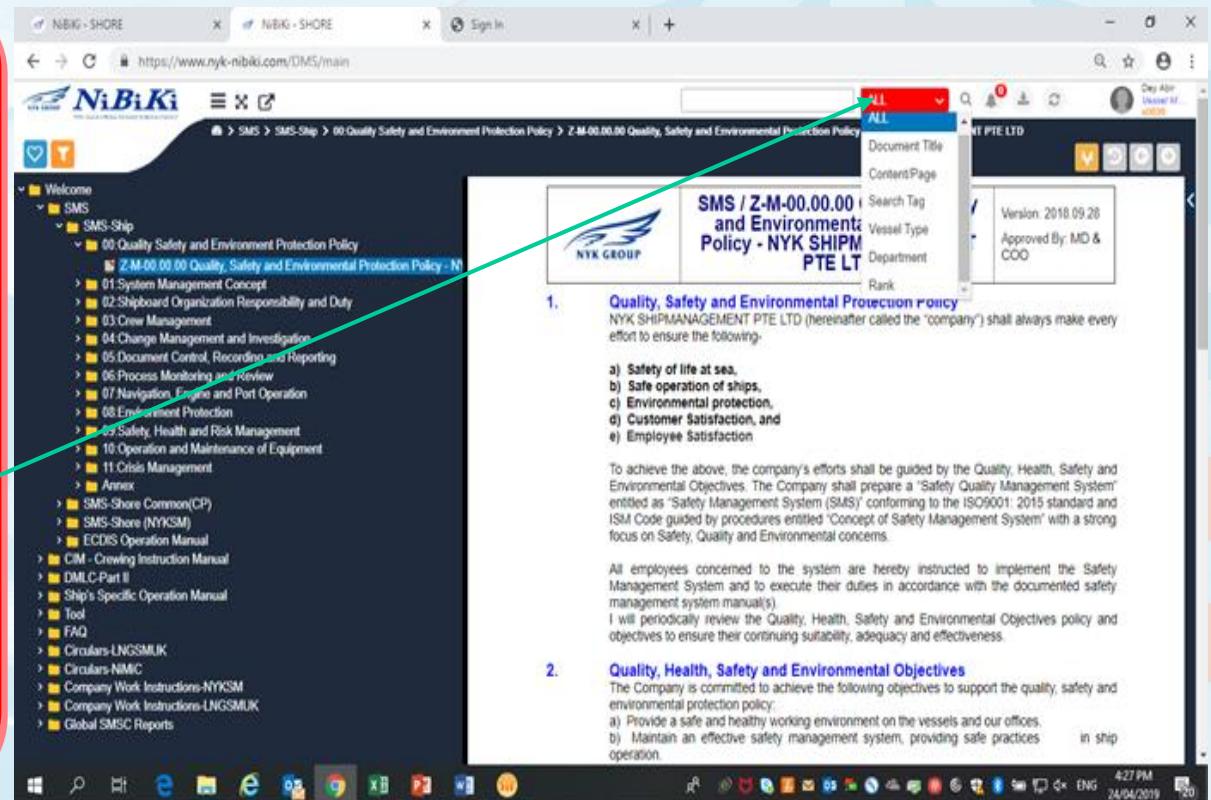
## Search Function

- The result is ordered by a number of search words in a document.
- Searched Words turn marked yellow
- Search Condition
  - ✓ Exact Phrase      Completely same words, blanks and order
  - ✓ All Words          Contain all of searched words
  - ✓ Any Words        Contain one of searched words
  - ✓ Page Names Only    Search only title of document
- If you want to find some words in present displayed document, press Ctrl + f, search window will be appeared

# Search Function

For search function one may select from the following:

- ALL
- Document title
- Content / Page
- Search Tag
- Vessel Type
- Department
- Rank



The screenshot shows a computer screen displaying the NiBiKi DMS software. The browser address bar shows the URL: https://www.nyk-nibiki.com/DMS/main. The main content area displays a document titled "SMS / Z-M-00.00.00 Quality, Safety and Environmental Protection Policy - NYK SHIPMANAGEMENT PTE LTD". The document header includes the NYK Group logo, version information (Version: 2018.09.26), and approval details (Approved By: MD & COO). The left sidebar shows a navigation tree under "SMS-Ship", including sections like "Quality Safety and Environment Protection Policy", "System Management Concept", "Crew Management", and "Navigation, Engine and Port Operation". A red box highlights the "ALL" dropdown menu in the top right corner of the document view. A green arrow points from the "Rank" option in the list on the left to the "ALL" dropdown in the screenshot.



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# Printing Function

You should mark "**Uncontrolled Copy**" on printed out document  
from SMS Manual  
(except Blank Form and Checklist)



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# Ch. 0 Quality, Safety and Environmental Protection Policy

Doc. No.: SMS / Z-M-00.00.00 Quality, Safety and Environmental Protection Policy - NYK SHIPMANAGEMENT PTE LTD

This chapter addresses  
Element 2 of ISM requirement i.e  
**SAFETY AND ENVIRONMENTAL PROTECTION POLICY.**

**Mission Statement**  
**Vision Statement**  
**Health Statement**  
and  
**Quality, Health, Safety and Environmental Objectives**



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# Ch. 0 SMS / Z-M-00.00.00 Quality, Safety and Environmental Protection Policy -



## **Quality, Safety and Environmental Protection Policy**

- a) Safety of life at sea,
- b) Safe operation of ships,
- c) Environmental protection,
- d) Customer Satisfaction, and
- e) Employee Satisfaction



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# Ch. 0 Quality, Safety and Environmental Protection Policy



## **VISION and MISSION STATEMENT**

### **Vision Statement**

Company shall be recognized globally as the leader in state-of-the-art ship management, crewing and maritime training services.

Rev 3.0 01/12/2010

NYK SHIPMANAGEMENT PTE LTD



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# Ch. 0 Quality, Safety and Environmental Protection Policy



## **VISION and MISSION STATEMENT**

### **Mission Statement**

Company shall be an efficient organization with well-trained, innovative and motivated personnel serving customers without compromising on safety, security and environment protection.

Rev 3.0 01/12/2010

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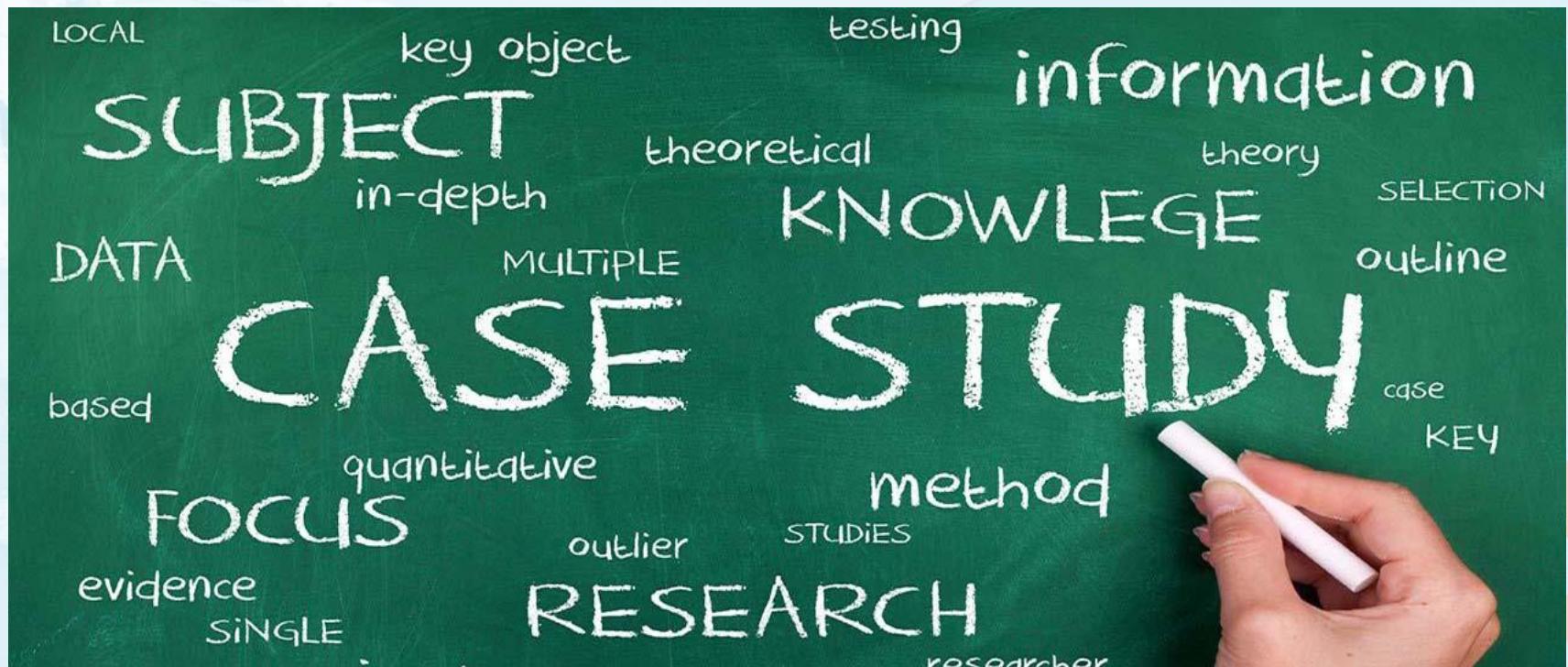


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<http://ivl-net.eu/>

NYK SHIPMANAGEMENT PTE LTD



<https://www.assignmenthelphub.com/>



# Torrey Canyon Incident



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le Torrey Canyon le 18 mars 1967



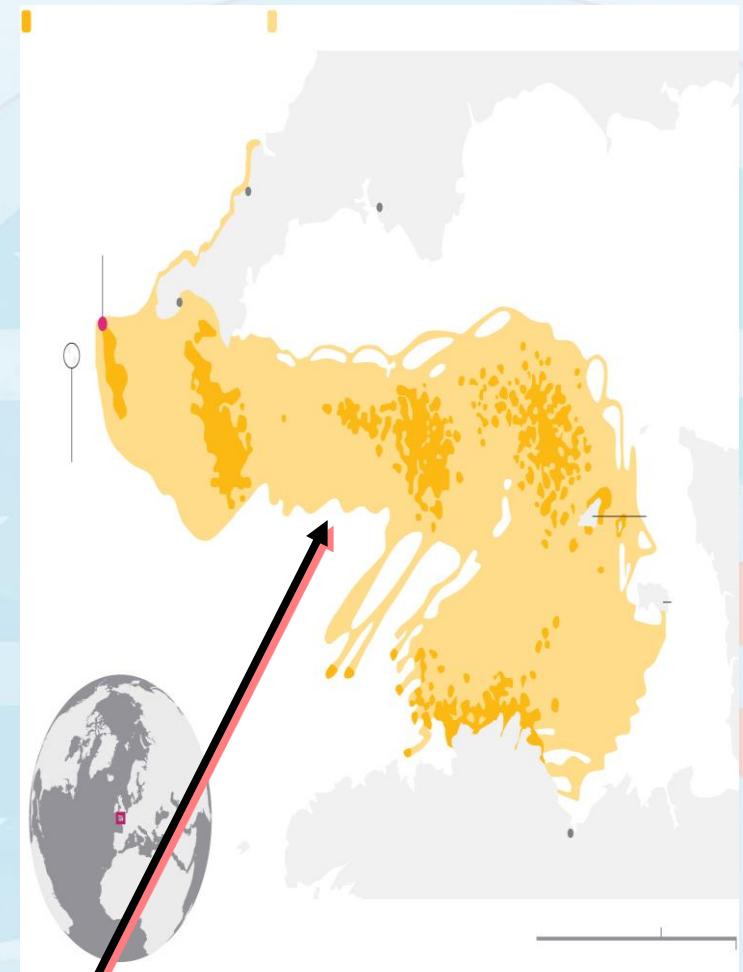
Ran Aground due to a Navigational error



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# Torrey Canyon Incident



Area covered with oil slick

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## M.T. Braer Incident (January 1993)



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# M.T. Braer Incident (January 1993)





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# M.T. Braer Incident (January 1993)





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# M.T. Braer Incident (January 1993)





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# Ch. 1 System Management Concept

## Document Numbers:

- SMS / Z-M-01.00.00 Concept of Safety Management System
- SMS / Z-M-01.10.00 Applicable Laws and Regulations



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# Ch. 1 System Management Concept

## SMS / Z-M-01.00.00 Concept of Safety Management System

- Z-010000-01FIG Make up of SMS Manual - HKK.
- Z-010000-01FIG Make up of SMS Manual – LNGSMJP
- Z-010000-01FIG Make-up of SMS Manual - LNGSM UK
- Z-010000-01FIG Make-up of SMS Manual – NiMiC
- Z-010000-01FIG Make-up of SMS Manual – NYKSM
- Z-010000-02FIG NYK SMS Manual - Information and Organization



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# Workshop

<http://www.dohad2017.org/workshops/>

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# case-study research

A word cloud visualization centered around the words 'case-study' and 'research'. The words are rendered in various sizes and colors (black, orange, red) to represent their frequency and semantic importance. The background features a large, stylized graphic of a ship's hull and waves.

Key words include: educational, reading, critical, domain, methodological, tool, craft, contemporary, social-science, qualitative, real-world, positionality, presentation, set, course, gain, especially, issues, positioning, context, valuable, project, outcomes, structured end, researcher, investigating, ones, writing, findings, improving, participants, applying, inquiry, build, investigates, in-depth, assessment, collection, appropriately logic, learning, knowledge, acquired, design, empirical, theoretical, data, phenomenon, policy, impacts, critically.

<https://canvas.harvard.edu>

Ship's Name: TSURUMI

Voy No. 321B

Date 03-Mar-17

No.	Jobs	RA Reqd (Y/N)	Special Instructions by Dept. Head	PIC	Workers	Safety Equipment	Tools	Initial Officer sign	Job Over Checks
1	Cleaning of Accommodation	NO YES	Wear correct PPE. Handle sharp objects carefully, exercise caution and prevent finger injury. STD/GEN/JHA-14, STD/GEN/JHA-023.	CIO	NSM, Deck Crew	ALL	As req	CIO	Cleaning equipment secured.
2	Cooking, Cleaning accommodation area, Serving food.	NO YES	Wear correct PPE. Handle sharp objects carefully, exercise caution and prevent finger injury. STD/DK/JHA-009, 010, 011.	CIO	CDC, Sick Mens	PPE	As req	CIO	Face & Plastic of utensils & knives secured.
3	Pump room daily checks	YES YES	Display tank tag posted at the entrance. Do not carry out tank venting while Pm is occupied. Comply with Pumproom Entry permit RA/STD/DG-014; STD/DK/JHA-033	CIO	P-MAN	ED, LG, GE W/200 LTR	As req	CIO	Pk n fns & lights off done closed.
4	Chipping, De-scaling and painting on BBD Manifold drain pipes, supports & fittings. Hydroblasting on main deck port side near midship stem fwd of manifold	YES YES	No tank venting to be carried out. Check PPE prior use. Correct deck sweepings for offloading. Comply with Derusting De-scaling permit RA/TRMWD/003/17; RA/STD/DB/022, RA/STD/DG/031; STD/DK/JHA-064; STD/GEN/JHA- 10, 24, 45; Follow W1-D-314 Procedures for operation of hydroblaster.	CIO	Bin,AB, CB,D/B	PPE, G/W, Hydroblaster suit,boots, gloves	As req	CIO	Chipping, D/B, sec point blst & paint draining secured.
5	Routine greasing of mooring winches, windlass, rollers & capstan greasing points	YES YES	Confirm all crew wearing leather gloves. Clear communication to be maintained. RA/STD/DB-003, STD/GEN/JHA-003, STD/ DECK / JHA / 013	CIO	PMAN, DK/BOY	LG, EP	As Req	CIO	Engines start off greasing done secured.
6									
7									
8									
9									
10									

## Working Schedule

Shift (Name)	00	02	04	06	08	10	MN	14	16	18	20	22	MEW
CIO - Kumar	I	I	I	I	I	I	I	I	I	I	I	I	I
2D - Sunil	I	I	I	I	I	I	I	I	I	I	I	I	I
2D - Mark	I												
2D - Sian	I	I	I	I	I	I	I	I	I	I	I	I	I
Res. Officer	I												
PM - Umaran	AS PER SHIPBOARD WORKING ARRANGEMENT SCHEDULE												
ABA - Martin	I												
ABA - Daniel	I												
ABC - Robert	I	I	I	I	I	I	I	I	I	I	I	I	I
COA - Ediberto	I												
COA - Pajo	I												
COB - Jeremy	I												
COB - Machava	I												
COB - Leo	I												
MME - Rafa	I												
Planning of Work Day	03-Mar-17	0700	Completion of Work Day		1800								

Safety Equipment : ED/Ear Defenders/Muff, Plugz, Safety Harness, EPI/Eye Protection, LG/Leather Gloves, DM/Cloud Mask, C/Oxygen Indicator, G/Gas Indicator, GW/Gas Watch, SR/Safety Rope, BA/Breathing Apparatus, FD/Fire Extinguisher, F/Face Shield, RG/Rubber Gloves, RS/Safety Rubber Boots, WP/Welding Protection, WC/Warm Cloth, WG/Winter Gloves, BI/Insulated Boots, HG/Heat Insulated Gloves, HCA/Heat Protective Cloth, LA/Leather Apron, RA/Rubber Apron, F/Floating Work Vest, CR/Chemical-cartridge Respirator, L/Life Jacket

Special Instructions: "ground electrically", "hot work permit", "release pressure", "get port permission", "entry permit", "two-man job", "isolate machinery", "mark-off job item", Mooring operations etc.)

"Job Over" column involves checks on completion for : fire safety, water-tightness, securing of loose items, proper line-up of pipelines, settings of starter panel, resetting of isolated fire sensors, cancellation of hot-work & entry permits, checks about safe return of all persons, return of equipment, etc..

Tools : CH/Chipping Hammer, SM/Scaling Machine, JG/Jet Chisel, SG/Sanding Grinder, WG/Wire Grinder, ST/Stage, BC/Boatsewain's Chair, TW/Torque Wrench, CB/Chain Block, AT/Anti-explosion Tool, IM/Impact wrench.

JHA : For routine jobs, explain hazards as per JHA and if no "JHA" is available, either JHA should be made or additional clear safety instructions should be given by dept head. RA: For all non routine jobs RA is required (either review or new if sample not avlb).

Note 1: Company HSEQ letter discussed and all safety precaution to be taken before any job where the risk of finger injury is present explained to all personnel.

Note 2: "PPE" refers to the basic safety equipment consisting of Safety Helmet, Safety Over-alls, Safety Shoes, Cotton Gloves.

Note 3: Bonus to make safety rounds on deck prior completion of job everyday.

Note 4: "TAKE EXTRA PRECAUTION TO AVOID FINGER INJURY"

Mr. P. Kumar  
Chief Officer  
(Name & Signature)

Mr. Pradip Chowdhury  
Chief Engineer  
(Name & Signature)

Mr. P. Panchal  
First Engineer  
(Name & Signature)

Captain Suresh Rao  
Master  
(Name & Signature)



BOSUN WAS CARRYING OUT HYDROBLASTER ON MAIN DECK



HYDROBLASTING WAS STOPPED AND WHILE BOSUN WAS FALLING BACK , STEPPED ON THE RUBBER HOSE NEAR BY LOST HIS BALANCE MOMENTARILY



SAFETY LOCK TO PREVENT PRESSING OF TRIGGER ACCIDENTALLY WAS NOT ENGAGED AT THAT TIME



## Injury on Right Toe of Bosun





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# Case Study

## Spilling of oil and smoldering of boiler insulation

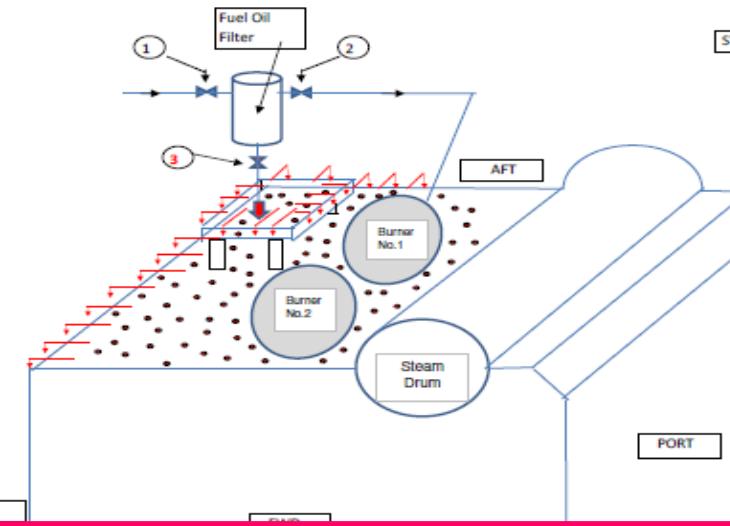
**09-Nov-13-**For routine maintenance of boiler base burner, boiler burner pump was stopped and valve no 1 and 2 of FO filter were shut.

After maintenance, pump was changed in auto and valve no1 and 2 were opened.

**Mistakenly drain valve no 3 was left opened.** Boiler then tried out from ECR, however, no person was stationed on boiler platform. After 5 minutes, duty oiler reported heavy oil spill and shut the inlet valve no1.

### Aux Boiler Lagging soaked with Heavy Fuel oil.

Cause: Filter Drain valve (No. 3) was accidentally left open (Normally kept shut) after Burner Maintenance. When Boiler was started, Fuel oil leaked through drain valve and overflowed on top and on the stbd and aft portion of the boiler soaking the lagging.



**FO sprayed all over the base burner & spilled to metal shielding on starboard and aft section of boiler. 200 l of leaked oil collected and wiped clean. Ship staff assessed that oil did not seep into insulation material**

**11-Nov-13-**  
At 0930 boiler fired. 1145- no2 burner started.  
1300- *Smoke and smoldering* of insulation.

**10-Nov-13-**  
Firing test was carried out for 10 minutes on 2 burner. Since all found normal, vessel decided to secure the steam plant.



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# Case Study

**11- Nov-13-**

Cargo operation was stopped. Emergency action in engine room initiated. Smoldering was put out by water spray.

Vessel then shifted to anchorage.



**11<sup>th</sup> to 15<sup>th</sup>-**

Vessel remained at anchor for renewing charred insulation. Shore workshop was arranged for installing new insulation. Staging was erected and insulation renewed.

Vessel berthed on 16<sup>th</sup> for completing discharging operation.  
**Off Hire Time- 169 hours.**  
**(Photographs)**



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# Case Study





# Case Study

- **Immediate Cause:**

- Fuel Oil piping integrity not checked after completing burner maintenance.
- Drain valve of filter was left in open position and fuel pump operated resulting in heavy out flow of oil from drain valve. The spilled oil flowed down on the sides and soaked insulation material with oil.

- **Basic / Underlying cause:**

- ***Complacency*** leading to lack of supervision, improper risk assessment and insufficient risk mitigation counter-measures.
- Responsible duty engineer did not supervise the area during the firing test.
- The hazard of leaked oil seeping into the insulation material was not identified.



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# Case Study

## Corrective action



1. To ensure that 'tool-box' Work Instruction includes following:

- *Securing of drain valves and checking the integrity of complete fuel piping after any maintenance and prior putting the boiler in operation.*

2. Keeping responsible person at boiler during test firing after maintenance.

3. Clear numbering of valves.

4. Clear work instruction on boiler operation in manual mode.

5. Infusion of '**chronic unease (productive tension)** for preventing **negligence and complacency**.



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# Ch. 2 Shipboard Organization Responsibility and Duty

Document Number:

SMS / Z-M-02.00.00 Shipboard Organization

## ■ Shipboard Organization Chart

1. Vessels with 3 Deck Officers
2. Vessels with 4 deck officers
3. LPG Carriers
4. LNG Carriers
5. Training Ships.

## Ch. 2 Shipboard Organization Responsibility and Duty

- Chain of Command
  - ✖ Ships exclusive contact : Vessel manager
- Chain of Command on Watch
  - 3 Officers
  - 4 Officers
  - LNG Carriers
- S-020000-06FIG List of Shipboard Special duty officers



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# WORKSHOP

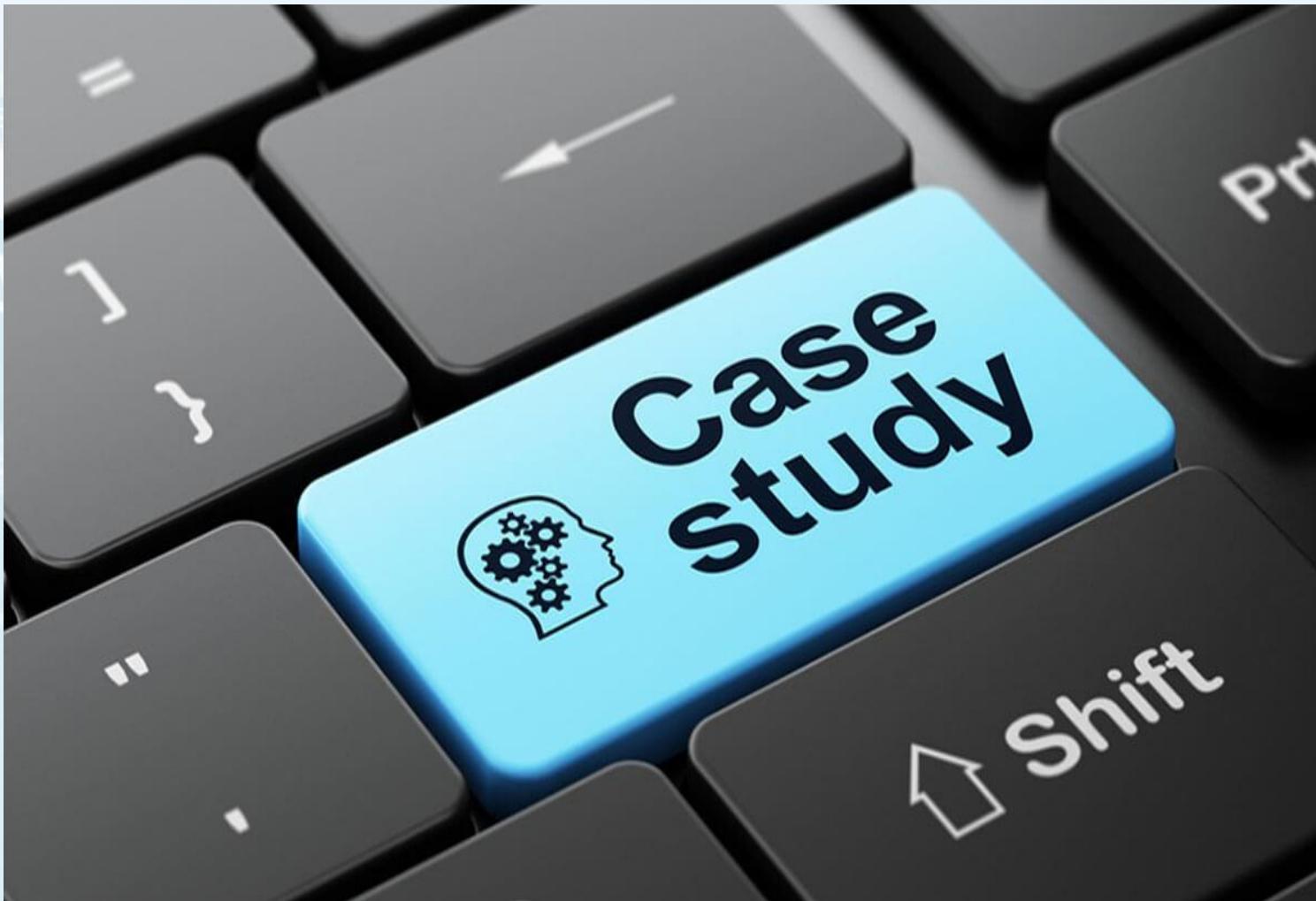


<http://www.cortopt.es.aau.dk/>

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<https://pro-essay-writer.com>



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# Case Study

**Incident:** Dumping Garbage at Sea

**Date/Time of incident:** 08 Aug / 0900 Hrs LT (UTC +11)

**Position:** Lat 38 12N Long 148 58

**Description:**

Ship personnel found to be in violation of MARPOL regulations on 08-Aug-2015. Garbage meant for incineration was dumped overboard while vessel was in open sea enroute from Toyohashi to Long Beach.

At approx 0900 Hrs Lt, in position Lat 38 12N Lon 148 58E, while vessel was on passage from Toyohashi to Long Beach, dumping of garbage overboard was carried out by the Chief Engineer, in violation of MARPOL and International Garbage Regulations. The Chief Engineer had ordered the E/R staff to transfer the garbage from the area near the incinerator in the E/R, and place the same at the stbd bunker manifold area. After this was done, the garbage was thrown overboard by the Chief Engineer.



© Greenpeace / Alex Hofford

<http://www.greenpeace.org/>



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# Case Study

Details of garbage dumped (approximate):

Scrap/metal	: 50 kg
Dry/Non-oily rags	: 40 kg
Oily rags	: 20 kg

This dumping overboard was not recorded in the Oil Record Book or Garbage Log Book.

All ship personnel to bear in mind that MARPOL regulations are to be strictly followed at all times. If vessel is in a situation where there is an excess accumulation of garbage onboard, Master should inform the Company immediately and arrange for the said garbage to be landed to a recognized shore facility and a certificate obtained for the same.

It must be noted that as far as possible, vessel should incinerate all applicable garbage on board and the same recorded in the Oil Record Book.



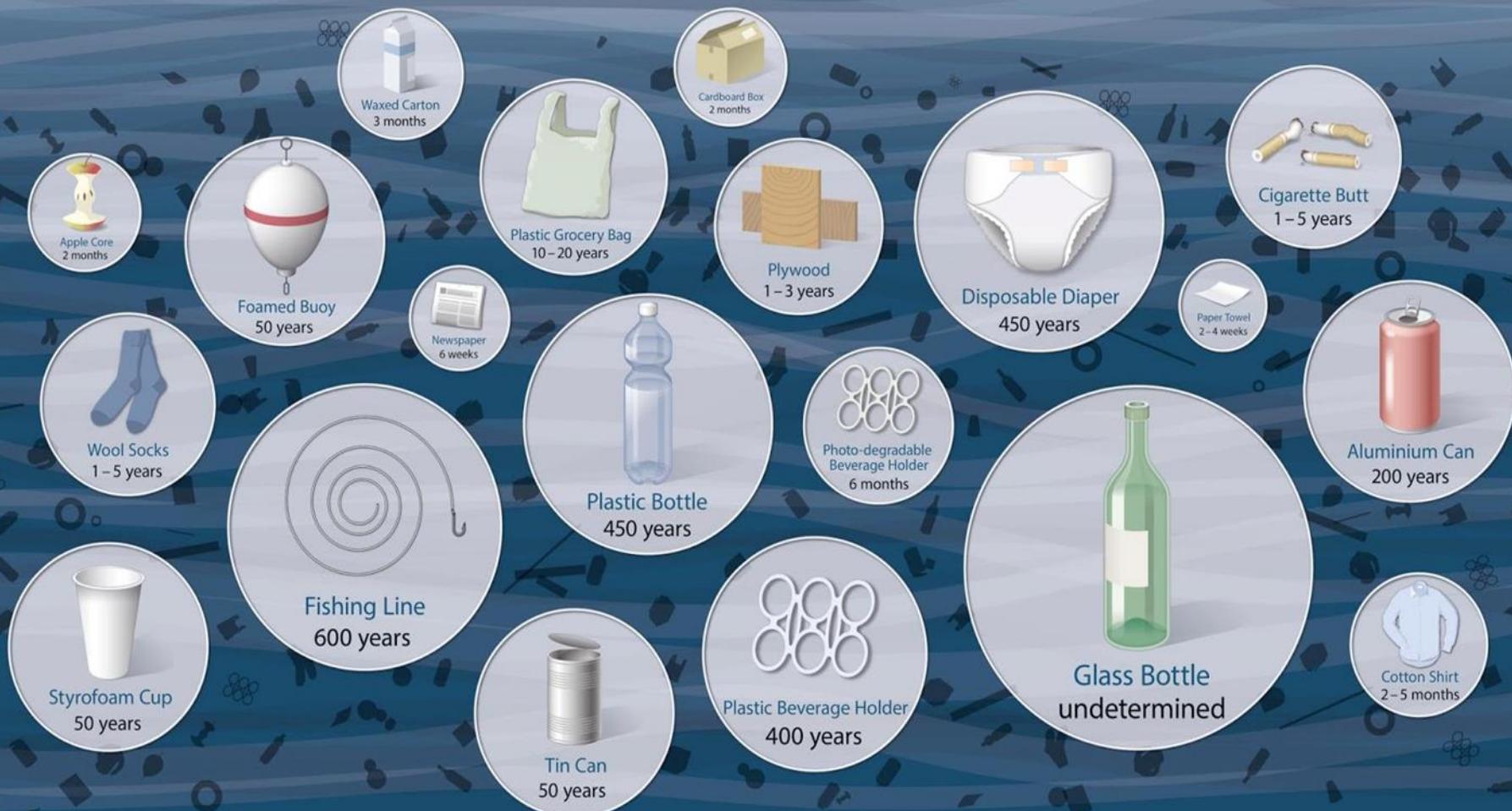
<http://www.greenpeace.org/>



<http://www.greenpeace.org/>

# HOW LONG UNTIL IT'S GONE?

Estimated decomposition rates of common marine debris items



Estimated individual item timelines depend on product composition and environmental conditions.

Source: NOAA (National Oceanic and Atmospheric Administration), US / Woods Hole Sea Grant, US  
Graphics: Oliver Lüde / Museum für Gestaltung Zürich, ZhdK



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## Ch. 3 Crew Management

Document Number:

### **SMS / Z-M-03.00.00 Crew Management**

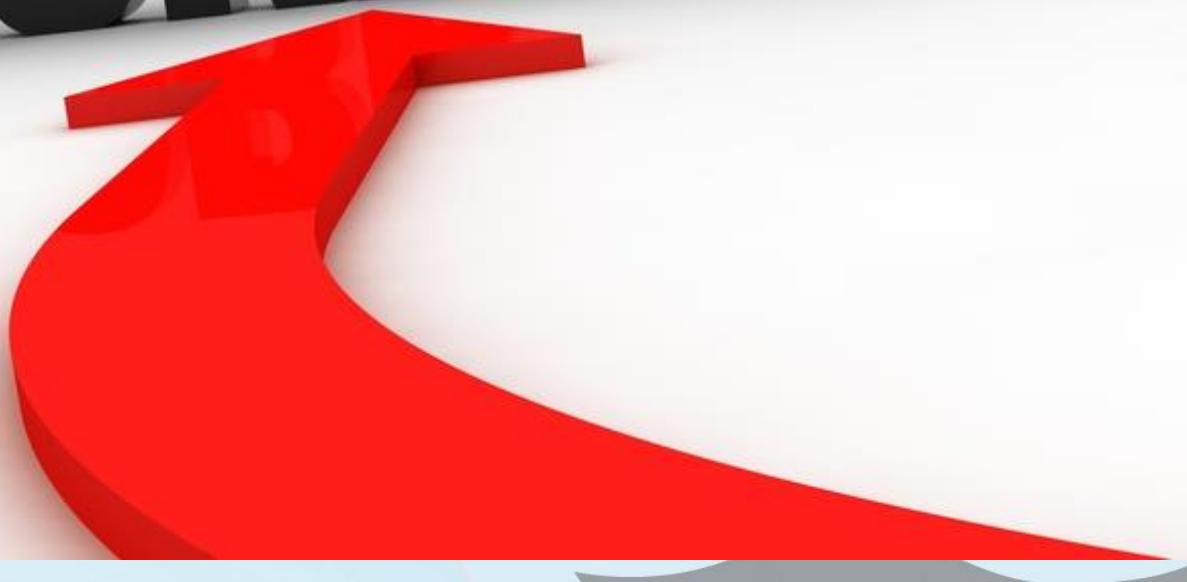
- Drug and Alcohol Policy**
- SMS Training**
- Understudy of the Jobs of Next Senior Rank**



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# WORKSHOP

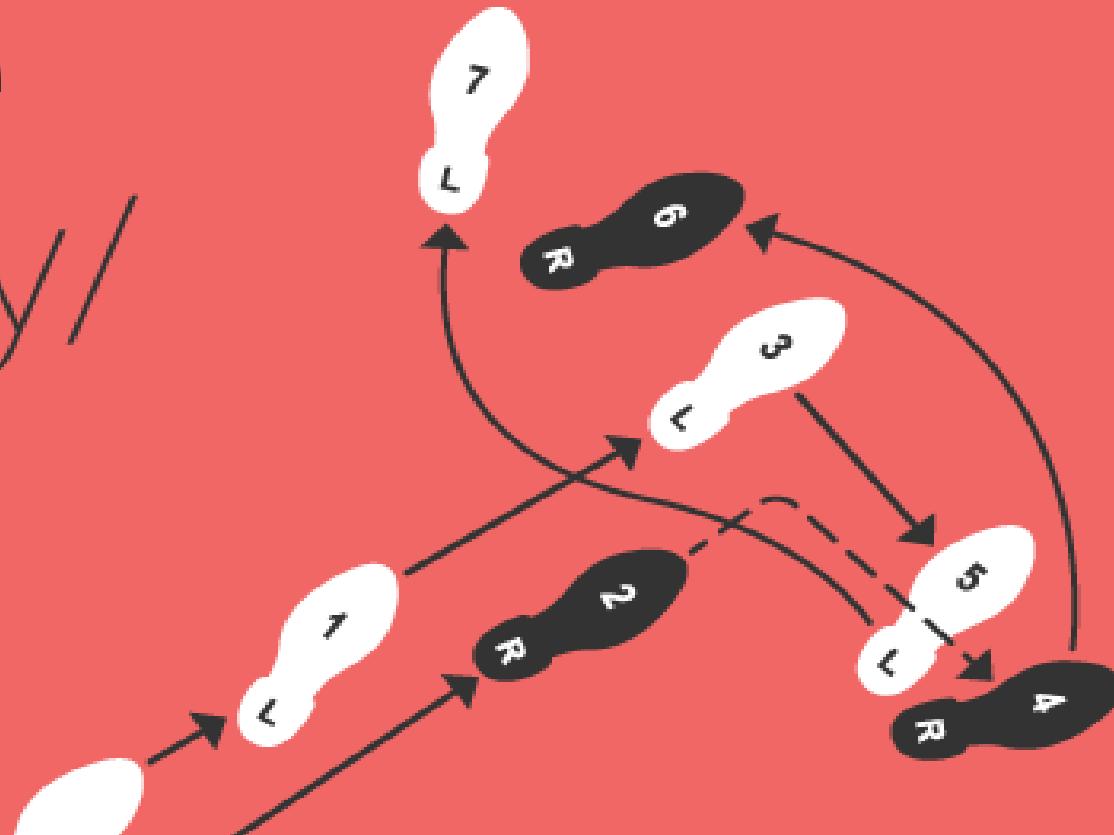




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# Case Study/



<https://www.brandwatch.com/>



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<http://www.ratemyjob.com/>

## ALCOHOL POLICY



<http://nata.gov.lk>

- During the Master's routine rounds to the wheel house at 2030 hrs SMT on 18 Mar 2012, it was found that the Duty Officer (3/O) and the duty A/B together found drunk.
- Then the Ch/Offr ,Bosun, S2/O ,and the A/B who handed over the watch were summoned to the bridge.
- The 2/O and the A/B were reprimanded for handing over the watch without informing the Master.





Document No.: ZZ-S-P-03.01.00  
Revision Date: 2011/02/28  
Form No.: S-030100-02FRM

Issuer: DGM Maritime HR and HSEQ  
Manager  
Approver: DPA

## Shipboard Discipline

### Notice of Dismissal

Figure

As a result of the investigation conducted and thorough evaluation of your written explanation, it has been decided to order your dismissal and repatriation, as the evidence offered and presented against you, have been found to be sufficient, substantial and adequate to warrant the termination of your employment on board.

In view thereof, a notice of dismissal is hereby served upon you, for the following offense/s:

1. While you were on navigational watch on 18<sup>th</sup> Mar.12 at 2030 hrs , You were found under severe influence of alcohol, by which putting the Vessel,Cargo, and the Life on board in danger.
2. Breach of Company's instructions and alcohol policy.
3. Breach of trust in keeping safe navigational watch.

For strict compliance.

The Alco tests were carried out by the Alco meter.

The results were as follows.(attached).

Duty Officer 3/O ----- 0.86 BAC

Duty A/B ----- 1.07 BAC.

On 23<sup>rd</sup> March ,A Notice of Dismissal was issued to both the 3<sup>rd</sup> Officer as well as AB on watch



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## Ch. 4 Change Management and Investigation

Document Number:

SMS / Z-M-04.00.00 Change Management and Investigation

- SMS Revision Control**
- Staff Handover (Onboard)**
- Change Management Process**
- Incident Investigation, Analysis & Follow Up**
- Customer Relationship Management**



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# GOALS

# COACH

# TEAM

# WORKSHOP

SUCCESS



RESULTS



PROGRESS



IDEA

MOTIVATION



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# CASE STUDY

<http://www.toprankblog.com/>



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# Customer Complaint-Unauthorized Fishing at Private Berth





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## Ch. 5 Document Control, Recording and Reporting

Document Number:

**SMS / Z-M-05.00.00 Document Control, Recording & Reporting**

- List of NiBiKi Manuals
- Document Control Procedure
- Document Handling
- On Board Standard Filing System
- Standard Library

- Work Instructions
- Ship's Certificates
- Information Technology and Cyber Security
- Information Sharing and Company Circular
- Ship Shore Reporting



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<https://pixabay.com/>

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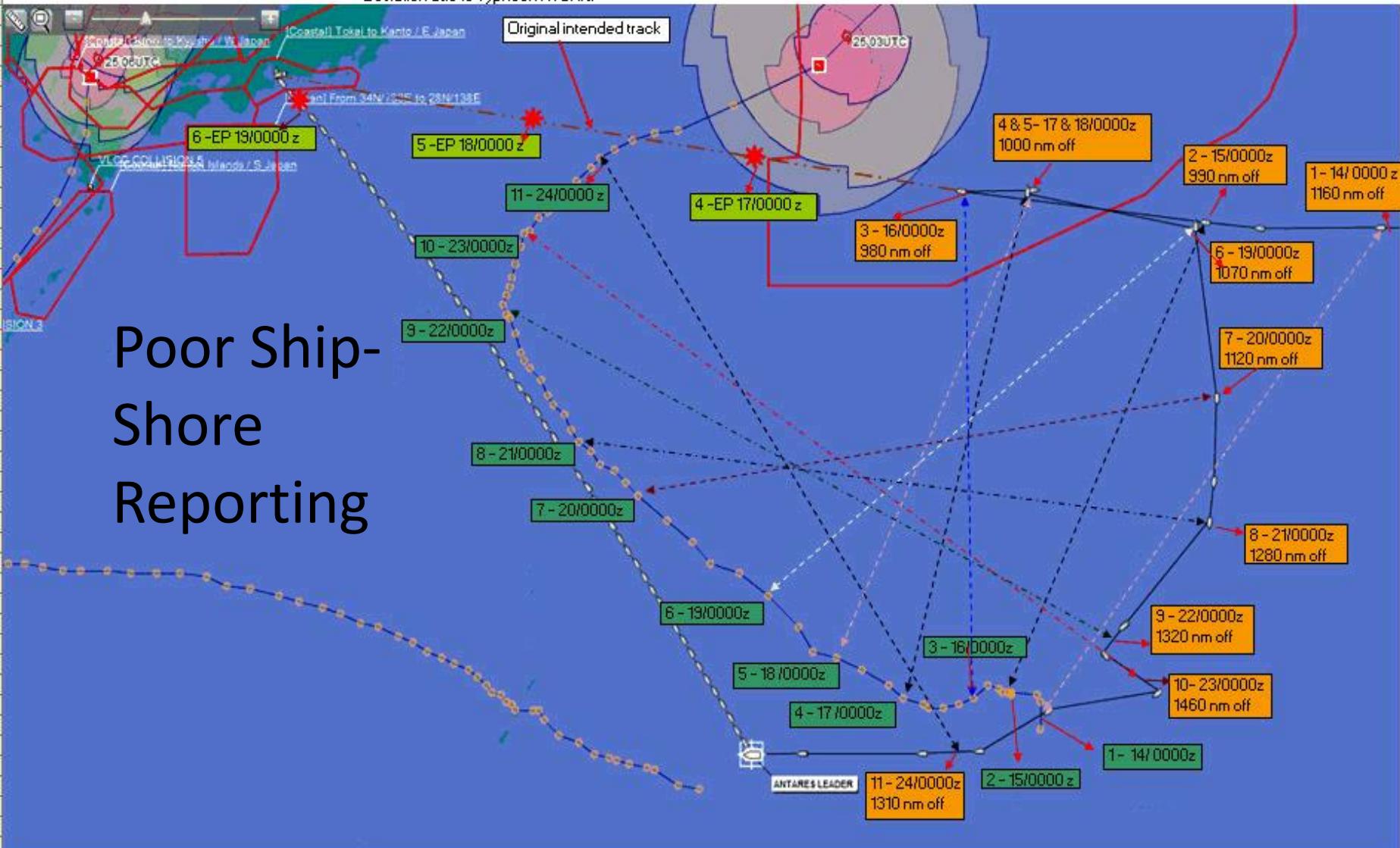
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# CASE STUDY



mv Antares Leader  
Deviation due to Typhoon ATSANI



If vessel had continued on her initial intended track she could have reached at 19th/ 1200 LT and maintained appox. 900 nm off the Typhoon at all the time.

Color Code

→ Vessel's Actual Positions

→ Vessel's Estimated position if she had followed her intended track

→ Typhoon Actual Positions



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# Ch. 6 Process Monitoring and Review

Document Number:

SMS / Z-M-06.00.00 Process Monitoring & Review

- Ship Internal Audit Procedure
- Navigational Audit
- External Audits and Inspections
- SMS Evaluation and Review
- Masters Self Check
- Preventive Action
- Monthly Surveillance
- Management Review



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The central graphic is a large white circle. Inside the circle, the word "WORKSHOP" is written in large red letters. Surrounding "WORKSHOP" are several other words in different colors and orientations: "assistance" (pink, top left), "development" (green, top right), "training" (yellow, middle right), "education" (blue, bottom right), "learning" (yellow/gold, bottom center), and "training" (pink, bottom left).

<http://www.canam.dance/>

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# Case Study

**Incident:** Discharge of clean bilge water without use of oily water separator at sea

**Date/Time of incident:** 12<sup>th</sup> April 2015

**Location:** At sea

**Description:**

4th May 2015

Company's representative boarded the vessel at Kasaoka for routine inspection of the vessel.

7th May 2015

During routine queries on MARPOL compliance Vessel Manager determined that the vessel has violated the MARPOL regulation on 12 Apr 2015. At the time of reviewing the Tank sounding book against the entries made in the Oil record book, it was noted that reduction in quantity of water from Bilge tank on 18 Mar 2015 was not recorded in the Oil record book.



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# Case Study

12 Apr 2015

During the evening watch (1600 to 2000 LT), 1st Assistant Engineer endeavoured to discharge water from Bilge Tank through the Oily water separator but was unsuccessful due to incorrect procedure being followed. Duty Oiler as per instruction from First Assistant Engineer opened the manhole covers for Bilge Tank and Clean Drain tank and transferred about 2.0 m<sup>3</sup> of water from Bilge Tank into Clean Drain Tank (tank is not listed in IOPP Certificate) using a portable air diaphragm pump.



Thereafter the First Assistant Engineer checked the quality of the water visually, and finding it clean discharged about 4 m<sup>3</sup> of water overboard using the ballast eductor (Clean drain tank had about 2.1 m<sup>3</sup> of water before the transfer). This transfer and discharge overboard was not recorded in the Oil record book.



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# Case Study

## Causes & Contributing Factors

The incident was analysed by interviewing the vessel's staff and using all available data which included the following:

- Deck log book and voyage records
- Oil record book.
- Bilge system piping diagrams.
- ER tank sounding log book.
- Oily water separator manual.
- Operation test of Oily water separator.



The investigation has identified the following key factors that contributed to the incident:

1. Inadequate understanding with regard to operation of Oily water separator.
2. Inadequate understanding of the MARPOL regulations with regards to discharge of clean bilge water and recording of the same.
3. Non-compliance with regards to reporting to superiors and the company.



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# Ch. 7 Navigation, Engine and Port Operation

Document Number:

SMS / Z-M-07.00.00 Navigation, Engine and Port Operation

The purpose of this chapter is to provide for responsibilities, instructions and procedures related to normal duties of the ship operation, in order to maintain safe operations.



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# Ch. 7 Navigation, Engine and Port Operation

- Watch-keeping at Sea (Navigation Bridge & ECR)
- Watch-keeping at Sea (Engine Control Room)
- Watch-keeping in Port(Deck Department)
- UMS Operation
- Entering Harbor
- Leaving Harbor
- Anchoring
- Pilotage Operation
- Helicopter / Ship Operation
- Hazardous Navigation (Restricted Visibility)
- Hazardous Navigation (Confined Water Space)
- Hazardous Navigation (Heavy Traffic Water Passage)



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# Ch. 7 Navigation, Engine and Port Operation

- Hazardous Navigation (Heavy Weather)
- Hazardous Navigation (Ice navigation)
- Ship's Log and Chief Engineer's Log
- Deck and Engine log Abstracts
- Charts and Nautical Publications
- Passage Planning
- Air Draft and UKC Policy
- Ship Stability
- Ballast Operation
- Handling Dangerous Cargo
- Container Ships
- Ship Security Matters and Safety Patrols



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# THE WORKSHOP

<http://www.workshopevents.com/>

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# Case studies





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# Case Study

<b>Date and Time of Incident:</b>	13 June 2013 0400 UTC (1600SMT).
<b>Location of Incident:</b>	North Pacific Ocean (V26 YTN~LAX)
<b>Type of Incident:</b>	Accidental Ingress of water in ER through Ballast Pump casing
<b>Timeline:</b>	
1350LT: Leakage noticed by CE from No.1 Ballast Pump during routine rounds. At the time Ballast operation by gravity was in progress, pump not running. (Filling up No.3 LS WBT).	
1352LT: Bridge informed and valve BA57 shut.	
1400LT: TAG Out for the mentioned valve posted on the Ballast console and Bridge informed.	
1430LT: On investigation the Mechanical Seal of the Ballast Pump No.1 was found in pieces, suspect due to pump having run dry earlier at the time of pumping out the No.3 LS tanks.	
1435LT: Commenced dismantling the motor and pump to replace the Mechanical seal with the new spare one.	
1600LT: An officer went to the ship's office and by mistake overlooked the Warning notice and operated valve BA57, immediately as water came out and on hearing the alarm being raised on UHF, the valve was shut. This 10 second opening of the valve caused approximately 3cum of sea water to gush into the ER bottom platform through the ballast pump casing.	



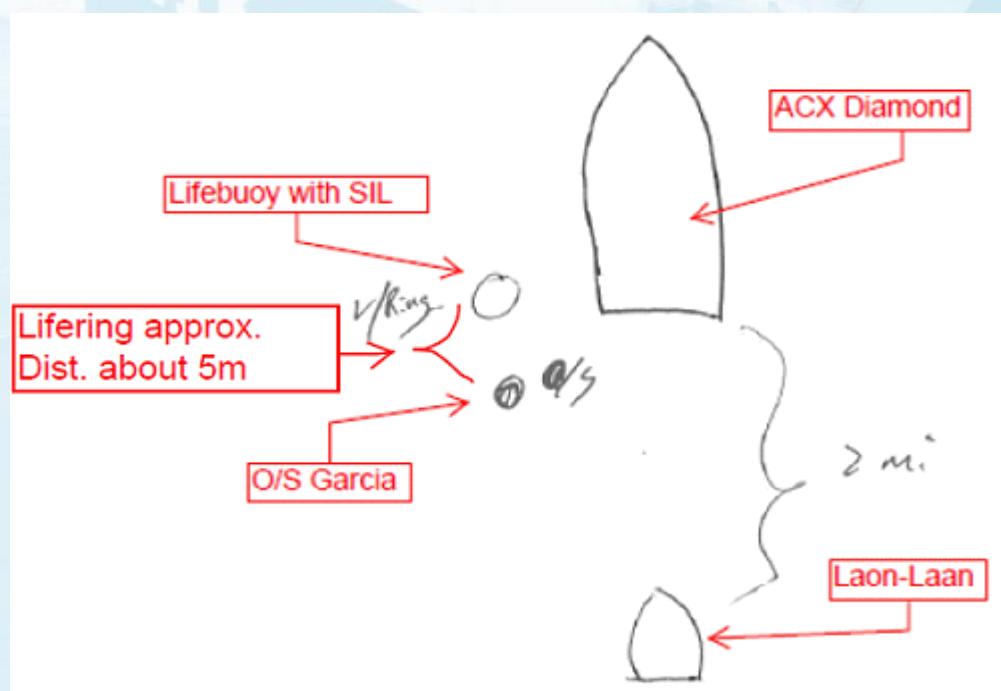
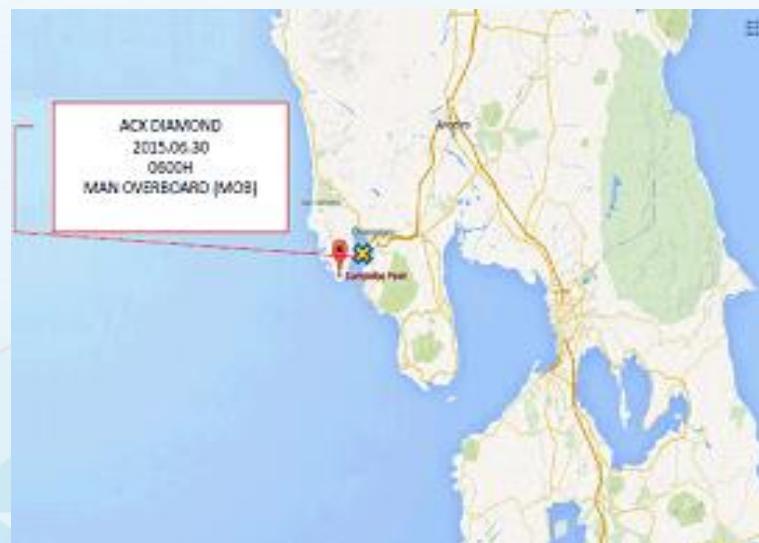
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# Case Study



**Basic / Root Cause (s):** Oversight and procedural violation of the TAG OUT system.



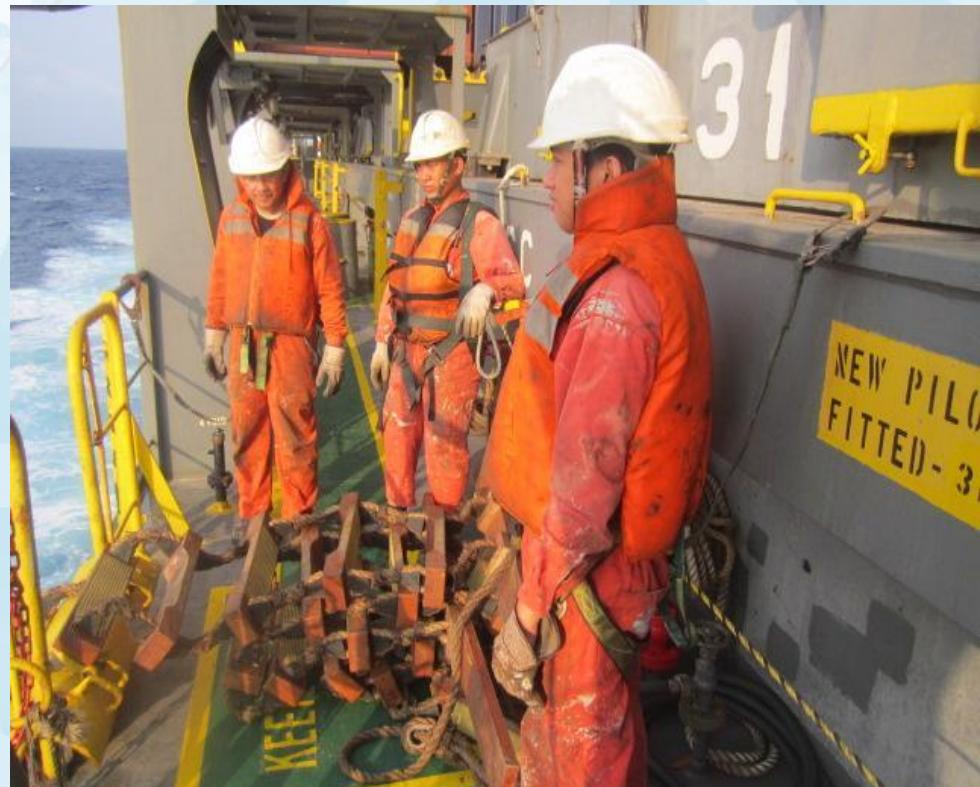




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# How the preparation should have been done(as per SMS)





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# Case Study

## Injury due to Hydraulic Oil Spraying under Pressure

**Date of Incident:** 30 Apr 2017

**Place of Incident:** Nagoya, Japan

**Timeline:**

27-Apr-2017

1842 H: Vessel all fast Starboard side alongside at Berth no-53, Kinjyo Wharf, at Nagoya Port.  
No Cargo operations at the night.

28-Apr-2017

0640 H : Stern Ramp Set for Cargo operations.

0811 H: Cargo Operations commenced.

1049 H: Stevedores Break for Lunch.

1145H: Duty AB at the stern ramp reported hydraulic oil dripping down on the stern ramp from the Starboard side locking cylinder of the Stern Ramp Flap. Chief Officer and App 3/Off reached to the site on Aft stations to investigate the oil leak.

1150H: Chief Officer on the spot noticed slight leakage from the hose connection of the locking cylinder. He instructed te accompanying App 3/Off to bring additional rags in order to wipe the oil. As he was in the process of removing the Anti-Splash tape from the hose connection to check the leak, the connector came off from the cylinder and oil started splashing out with pressure. The pressurized oil hit on his right hand and splashed on his face & eyes. The hydraulic pumps were not running at the time of incident.



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# Case Study



1151H- Chief officer informed the Master over the radio and tried stopping the leak by putting his hand at the groove in order to minimize the spill and prevent oil from going overboard.



1153H – Master raised the alarm and crew was instructed to muster at the aft stations with Oil Spill equipment to deal with the spill.

1158H – Master along with on-board HSEQ Manager reached at the location and took charge of the situation.



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# Ch. 8 Environment Protection

Document Number:

SMS / Z-M-08.00.00 Environmental Protection

- Environmental Pollution Prevention
- Pollution Prevention Equipment
- Oil Spill Containment Equipment
- Garbage Management Plans
- Bunker / Internal Oil Transfer Operation
- Lube Oil Replenishment
- MARPOL Compliance Statement



<http://www.insightsonindia.com/2017/02/04/insights-editorial-tarred-oil-spill/>



<http://www.insightsonindia.com/2017/02/04/insights-editorial-tarred-oil-spill/>



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<http://www.dohad2017.org>

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<https://eutraining.eu/>

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## Incident: Contained HFO spill during bunkering

Incident details:

Date of Incident: 07 September 2017

Type of vessel: MR Tanker

Location: Yokohama anchorage



# Summary



- While bunkering HFO on 07 Sept 2017 at Yokohama anchorage, Japan, approximately 1,500 liters of bunker spilled from air vent of 2(S) HFO tank on deck.
- The spill was contained on board.





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## Sequence of Events

<Nominated quantity was 970 MT / 994.4 M3. for **1(P), 1(S) & 2(S)** >

- 07 Sept / 0827 - Bunkering was started in 1(P) & 1(S) HFO tanks and rate was slowly increased to **250m3/hr.**
- 1045 – 1(P) HFO tank valve was throttled and bunkering commenced in **2(S) HFO Tank.**
- **1100 – 1(P), 1(S) & 2(S) bunkering was in progress.**
- 1136/1144 – **1(P) / 1(S) HFO tank filling valves** were **shut.**
- **1148** – Bunker received on board 946 M3 with only 2(S) HFO tank filling valve open.
- 1206 – **Spill onboard** <Rate **285m3/hr** at the time of incident>

# Contained spill





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## Cause analysis

What are the causes and contributory factors ?



# Causes and contributory factors

- No manual sounding was taken of 2(S) HFO tank from 1045 Hrs till 1148 Hrs.



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## Causes and contributory factors

- Nobody carried out continuous bunker calculation.

Position	Station and Division of Duties
Chief of overall & work site operations	Person In Charge of Overall Operations.  Preparation of Bunker plan, remote valve control console operations, calculations, recording, tank soundings interval, documents signing.

Bunker Oil Replenishment		Document No.: 22-S-P-0810-01 Revision Date: 2010/09/26 Form No.: S-081001-02/U/G Approved: DPA
List of Bunker Work Assignment and Stations		Figure
Position	Station and Division of Duties	
Chief of overall & work site operations	Person In Charge of Overall Operations. Preparation of Bunker plan, remote valve control console operations, calculations, recording, tank soundings interval, documents signing	
Chief engineer	bunker line, valves setting, overflow arrangement and soundings.	
Third engineer	Bunker station, gangway, and oil barge communications between ship and oil barge, attendance at large tank soundings, on board tank(s) and line setting prior bunkering during changeover and final closing, monitoring of situation.	
No.1 oiler (fitter, machinist), oiler	Tank cleaning and bunker station, sounding of various tanks, various bunker station work, work site valve operations, other preparation work, and making oil barge fast alongside.	
Other engine room members	Various preparation works.	
Deck officer on watch	Hoisting of B flag and lighting of red light, monitoring of and dealing with weather and sea conditions, and of steering state of ship. Also directing of deck department work.	
Deck crew members	Making oil barge fast alongside, handling accommodation ladder, Pilot ladder, hose davits, and other work directed by officer on watch.	

C/E is in charge of Bunker Calculation



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## Causes and contributory factors

- Least capacity bunker tank was chosen as the

Tank	H.F.O.T #1 (P)	H.F.O.T #1 (S)	H.F.O.T #2 (S)
100% capacity and sounding	365.3 M <sup>3</sup> / 17.96m	477.0 M <sup>3</sup> / 17.94m	262.6 M <sup>3</sup> / 14.60m
90% capacity / sounding / ullage	328.8 M <sup>3</sup> /U-2.58 m /S-15.38m	429.3 M <sup>3</sup> /U-2.50 m /S-15.44m	236.3 M <sup>3</sup> /U-2.14 m /S-12.45m
Difference of quantity between 100% & 90% capacity	<u>36.5 M<sup>3</sup></u>	<u>47.7 M<sup>3</sup></u>	<u>26.3 M<sup>3</sup></u>



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## Causes and contributory factors

- No formal notice was served by vessel to bunker barge to reduce pumping rate.
- The bunkering was very high i.e. **285 m<sup>3</sup>/hr** at the time of over flow. (Agreed topping off rate was **50 m<sup>3</sup>/hr**)

NYK SMS Manual

(Rev 2016/09/26)

### CHECKLIST FOR BUNKER OIL REPLENISHMENT

No	ITEMS	ISSGOTT Ref	SHIP	BARGE
	Has the transfer rate namely initial rate, maximum loading rate and topping off rate been agreed between the ship and the barge and being followed during transfer? Specify: 43 Initial Rate: <u>50m<sup>3</sup>/hr</u> Maximum Rate <u>250m<sup>3</sup>/hr</u> Topping Off Rate <u>50m<sup>3</sup>/hr</u> (Transfer rate to be reduced during start, stop and topping up of tanks) Notice Required to reduce the rate during topping off: <u>20</u> min Notice required to final stop: <u>10</u> min		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
44	Have the properties of the oil and the amount to be supplied been checked & barge meter reading/barge tank soundings recorded? Have all necessary documents and clerical work (reqd prior commencement of bunkering) been finished?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



## Causes and contributory factors

- Only one person (3AE) was taking soundings, despite
  - the fact that 1(S) & 2(S) were being topping off at a time difference of 10 min
  - the pumping rate was 285m<sup>3</sup>/hr

<During FO bunkering, below jobs were also carried out>

- Provision, Stores and Spare picking up
- Garbage Landing
- LO bunkering

# Summary of Causes

- a) No manual sounding was taken of 2(S) HFO tank from 1045 Hrs till 1148 Hrs.
- b) Nobody carried out continuous bunker calculation.
- c) Least capacity bunker tank was chosen as the last tank.
- d) No formal notice was served by vessel to bunker barge to reduce pumping rate.
- e) The bunkering rate was very high i.e. 285 m<sup>3</sup>/hr at the time of over flow. (Agreed topping off rate was 50 m<sup>3</sup>/hr.)



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# Countermeasures

- a) The incident will be **circulated among the fleet vessels to raise awareness & consequences** about bunkering operation.
- b) Company shall verify fleet wide compliance of bunkering procedures through **monthly surveillance**.
- c) This incident shall be included in the pre-joining briefing of Master, CE, 1AE.



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What is the **main cause** of Incident  
?  
Why **didn't HFO spill overboard** ?

# Points to Remember

- **Nobody** carried out **continuous bunker calculation**.
  - **No manual soundings** were taken.
  - **Only one person** (3AE) was taking soundings.
  - Closing and confirmation of **Scupper plugs** resulted in **no oil spill** overboard.
- 
- **These are basic matters during bunkering.**
  - **A lapse in such matters may cause catastrophic accidents.**



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# Case Study

## Oil Spill Incident During Bunkering Operation

**Date of Incident:** 01 Jan 2007

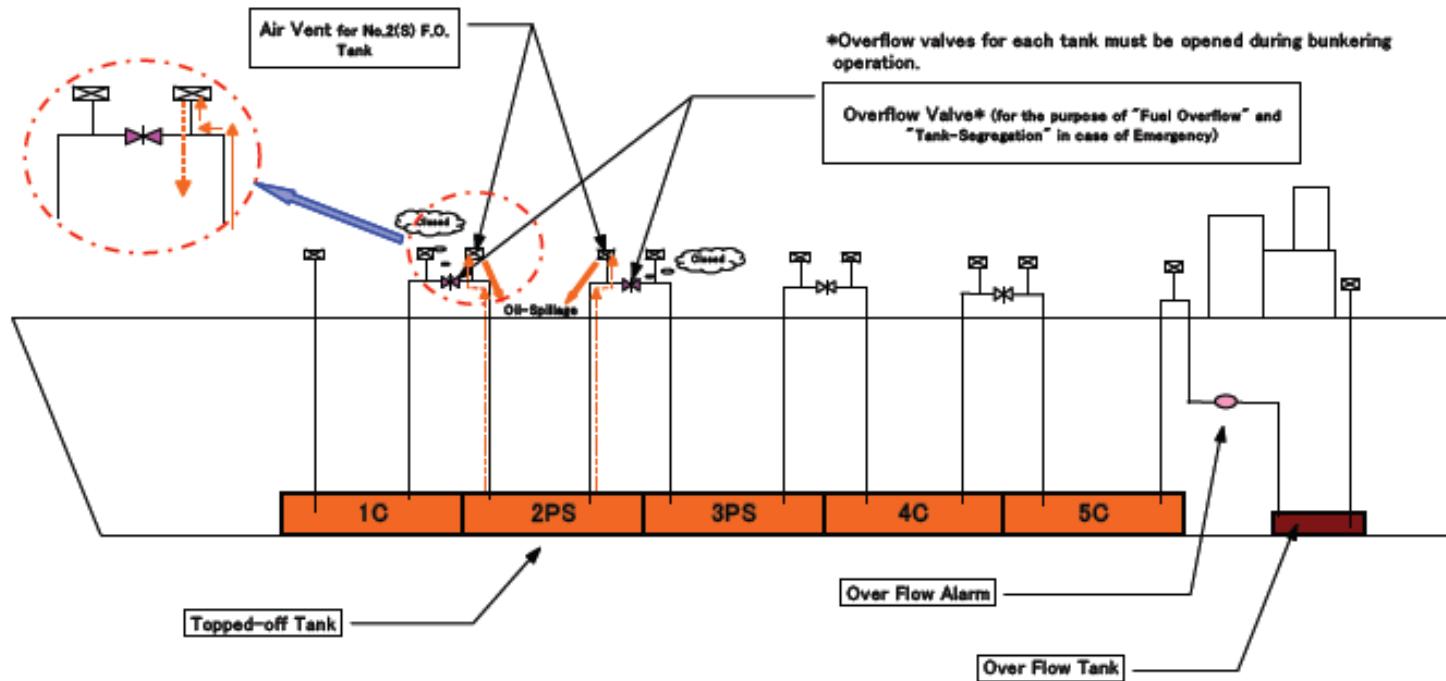
### Details :

The vessel in question had completed taking on fuel oil in two of the our fuel oil tanks that the vessel had planned to refuel at the port, and had started filling the remaining two. One of the two tanks that had already been topped off had a damaged seat ring in the filling valve, which allowed fuel oil to continue filling that topped-off tank. As a result, the fuel oil of that tank exceeded the planned level. Consequently, during an air blow in the final stage of the bunkering operation, fuel oil gushed out of the tank's air-vent opening and spilled about 2 metric tons on deck and about 15 liters into the sea.



# Case Study

## Rough Drawing of Air Escape and Overflow Arrangement



# DEVIL Chain

(FO spill during bunkering)

## Accident

(Environmental pollution)

A

FO spill on  
deck

B

Minor damage  
on FO storage  
tank

Minor  
accident/trouble

① Tank sounding during bunkering was improper.

A

② Indication of isolation valve was incorrect

A

③ Overflow valve was shut.

A

④ Communication with bunker barge was insufficient

A

⑤ Hydraulic valve was damaged.

B

Near Miss

a Number of assigned person was not enough.

①

b Master valve (2N) for No2 P&S FO tank was left open.

①

c The bunker plan was insufficient.

①②③④

d There was an insufficient understanding of overflow pipeline.

②③

e The HL alarm was not activated properly.

①

f The bunker line was not checked properly.

②③

g Pressure test of the bunker line was not carried out.

④

DEVIL



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# Ch. 9 Safety, Health and Risk Management

Document Number:

SMS / Z-M-09.00.00 Safety, Health and Risk Management

- Risk Management
- Conduct of Daily Job Order
- Hazard Identification and Analysis
- Behavior based Safety Program
- Company's Award Scheme
- Duties of Safety Officer
- Personal Protective Equipment

- Fire / Explosion Prevention
- Hot Work for Dry Vessels
- Hot Work for Tankers / Gas Carriers
- Enclosed / Confined Spaces
- Permits to Work (Dangerous Work)
- Lock-out Tag-out Procedure
- Safety Instructions for Visitors



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# Ch. 9 Safety, Health and Risk Management

Document Number:

SMS / Z-M-09.00.00 Safety, Health and Risk Management

- Third Party Services – Risk and Safety Management
- Onboard Meetings
- Crew Health and Medicine Management
- Near Miss Marine Injury and Sickness
- Signs and Notices
- Chemical Storage and Handling
- Asbestos Handling
- Safe Mooring Operations
- Cold Weather Precautions



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# WORKSHOP

<http://www.trustcollective.com>

NYK SHIPMANAGEMENT PTE LTD



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<https://www.matrixtelesol.com>

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# 1AE Hand Amputation(at wrist level)





## Case Study

- During Incinerator oily rags burning operation, in order to expedite the burning process or to expose the unburnt rags Oiler opened the Feeding door & inside sluice door after bypassing the Safety device ( Door micro switch) & used metal rod for spreading the burning oil rags. While doing so his hands slipped & sluice door closed automatically ( after 10 sec of releasing the limit switch). His hands got caught in between the door & frame. His hand got burned ( III deg burn) & he is declared not fit for duty.

- **Immediate causes:**
- Lack of safe mind along with procedural violation.
- He acted on his own without consulting senior officer.
- **Root Cause :**
- Ignorance, lack of safe mind. Bypassing of safety Interlocks.
- Procedural violation.

06-Oct-2015

How will you prevent this from occurring on your Vessel ?

- Failure / Root Causes:**
- 1) Lack of safe mind
  - 2) Failure to follow W.I.
  - 3) Risk not properly identified



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## Case Study

### ■ Depiction of Incident

1. Oiler opening the feeding door by **BYPASSING** the limit switch.
2. Inserting the metal rod for exposing the unburnt Rags.
3. During this RISKY operation his hands slipped .
4. Before he could take out his hand the inside sluice door closed automatically ( 10 sec after releasing the switch).His wrist caught between the door frame & the door.
5. Condition of his right hand.

DID HE ASK HIMSELF  
**WHY**  
AM I DOING THIS ??????





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## Case 1: Flooding in no. 1 Cargo Hold

### Incident Details:

Date of Incident: 09 August 2017

Type of vessel: Coal Tar / Pitch carrier

Location: en-route from Richards Bay to Singapore



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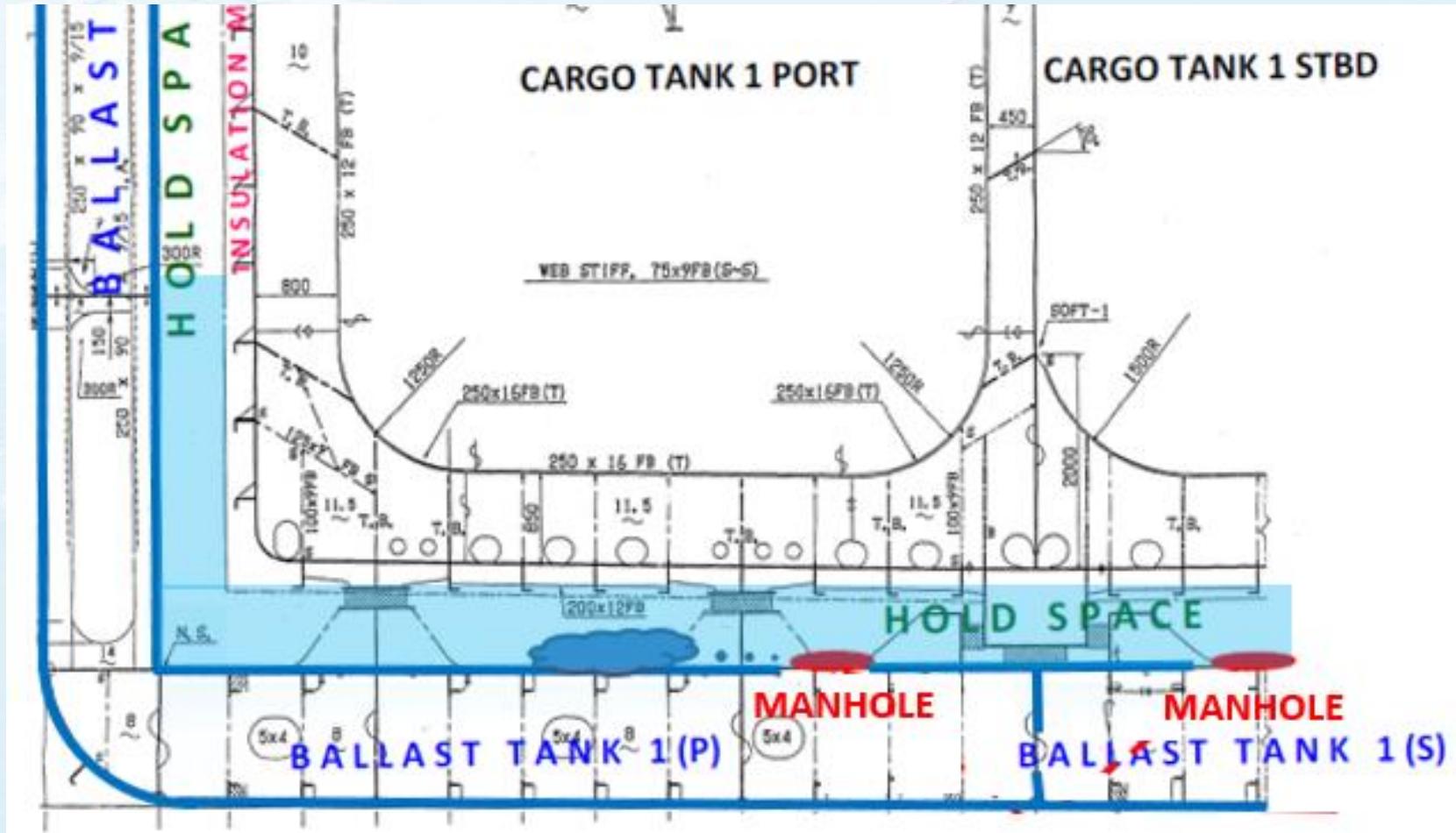


## Summary

- Vessel experienced **flooding of No.1 Cargo Hold** (space between No.1 Cargo Tank and No.1 Ballast Tank) due to the ingress of water from No.1 Ballast Tanks.
- No.1 Cargo Tanks (P&S) were lifted upwards from their base supports.
- Main cargo lines, vapour lines and thermal oil heating coils were **sheared off**. Walkways, tank insulation material, tank base & side supports, cargo valve spindles, level gauging equipment and the tank top bonnet were **damaged**.



# Structure of Tank/Hold space





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# Extent of damage



Damaged Cargo valves of Cargo Tank 1P



Damaged Railing due to Shift of cargo Tank



Tank Insulation steel sheet torn



Damaged Tank Insulation



Damaged Cargo Tank Suction pipe



Heating coil pipelines sheared



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## Sequence of Events

- 24 - 25 July: Inspection of the Ballast Tanks was carried out.
- 27 - 28 July: All Ballast Tanks were ballasted to 100% capacity at 1st discharging port (Maputo)
- 08 Aug: Vessel departed 2nd discharging port after cargo operations.
- 09 Aug: Ship's staff noticed **some smoke coming out from the air vent of No.1 Cargo Hold and at the same time E/R reported activation of the thermal oil expansion tank - low level alarm.**



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## Sequence of Events

Upon opening the cargo hold inspection hatch, it was noticed that **No.1 Cargo Hold void space was flooded with water.** When No.1 Ballast Tanks (P&S) were sounded, their levels were found to have been significantly reduced.

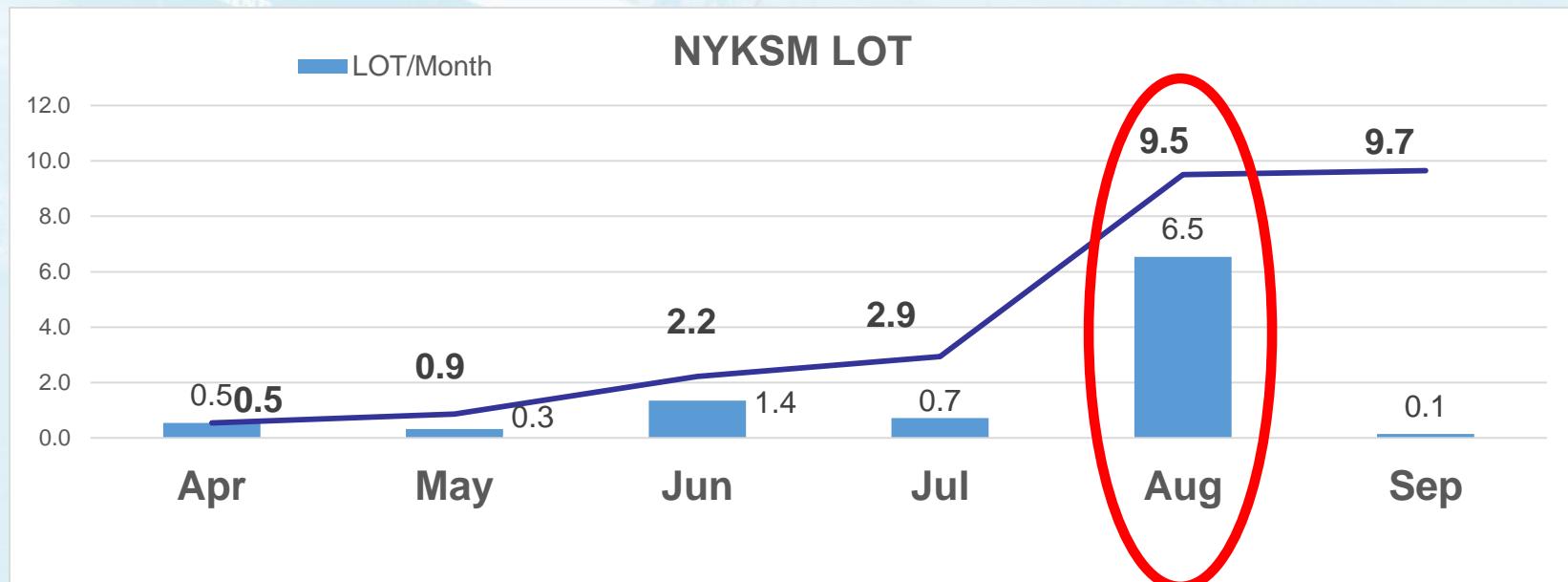


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# Loss of Time

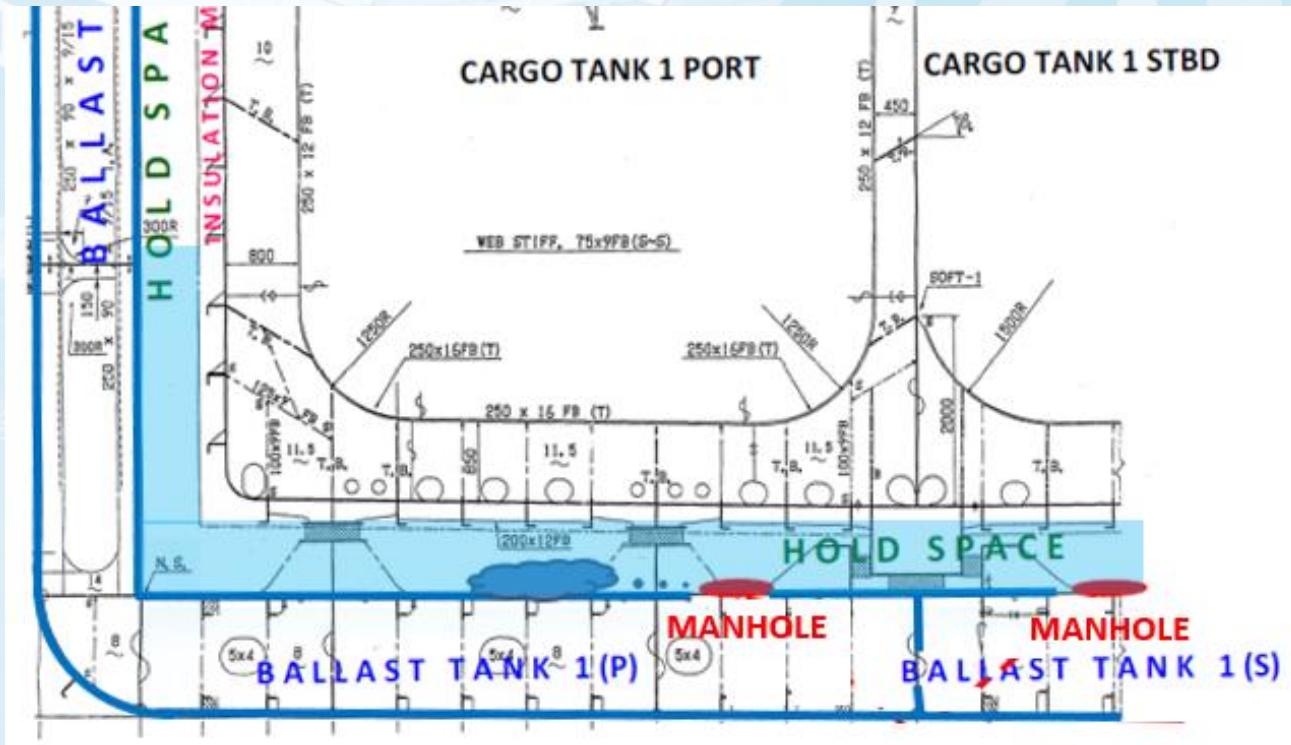
- Vessel was going to Dry Dock for repair
- Loss of Time was **912** hours (38 days.)





# Cause analysis

# What are the causes & contributory factors?





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# Causes and contributory factors

- 1 - Manhole covers were **not** fully tightened.
- 2 - Confirmation of manhole closing was **not** done by Department head (C/O).
- 3 - Ship's crew **did not** check for leaks from the manhole when ballasting the tanks.



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# Causes and contributory factors

- 4 - Daily sounding of Ballast Tanks and Cargo Hold bilges was not carried out.
- 5 - Ship's crew did not notice the decreasing water levels of the Ballast Tanks and increasing water levels in Bilges of the Cargo Hold void space.
- 6 - Bosun did not give clear instruction to AB to spanner tighten all manholes bolts in No.1 Hold. (Communication Error)



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# Countermeasures

- ❑ Briefing of top 4 officers shall be conducted at Singapore.
- ❑ SMS Training shall be conducted before joining.
- ❑ HSEQ managers will carry out **sailing audit every 6 month** to impart training to ship's staff.
- ❑ **Review of internal audit procedures to identify the gaps** in compliance with SMS procedures.
- ❑ **To change the concept / procedure of Internal audits**
- ❑ Vessels will **advise company by e-mail** about closure of ballast tank manholes **after inspection**.
- ❑ **Incident shall be circulated** to other vessels.
- ❑ **To install Cargo hold Bilge Alarm system.**



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# Points to Remember

- ***Closing and tightening of Manhole covers and confirmation by department head***
- ***Sounding of the Tank/ Bilges and monitoring the level changes.***
- ***These are some of the most basic but important routines.***
- ***A lapse in such matters may result in catastrophic accidents.***



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# FATALITY IN ENCLOSED SPACE

Please read the case study paper given to you.



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# FATALITY IN ENCLOSED SPACE

**What Mistake C/O, 2/O & AB-1 did ????**

They did not raise the **STOP CARD** & wait for the enough person to accomplish the task.



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# FATALITY IN ENCLOSED SPACE

**In your opinion what could be the reason of loss of life???????**

**Only one reason**

**Crew members should not be hesitant to challenge the orders and they must raise the STOP CARD if they feel its not safe.**

**Virtually ship staff violated the SMS procedure.**

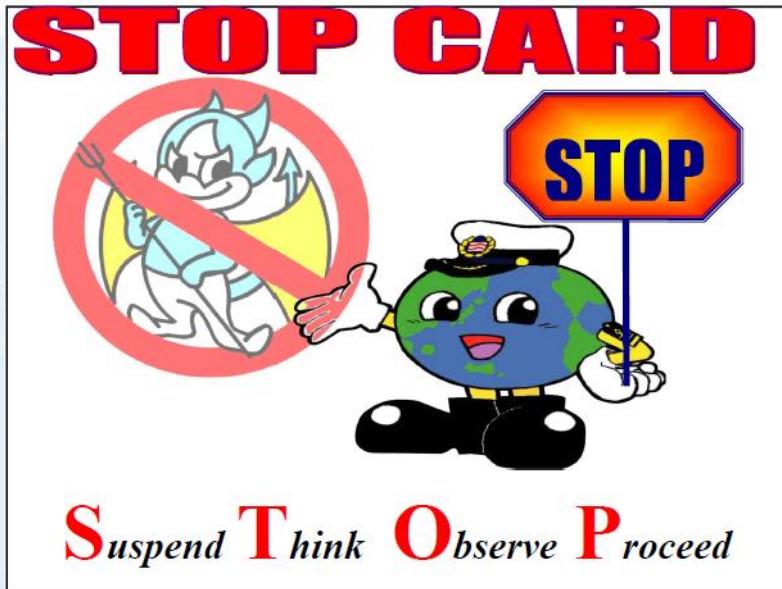
**Please follow SMS procedure and your quick action can SAVE your colleague life.**



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# FATALITY IN ENCLOSED SPACE



INSTRUCTIONS FOR ISSUING STOP CARD	
a) If you identify any unsafe act -advise the worker or workers to halt their work by showing this card	
b) Pls cordially point out the unsafe act and the suggested corrective action needed,	
- Emphasizing to the worker that this is for the workers own safety	
- Inform Safety Officer if some Standard Procedure (e.g Permit / Lock / Tag out) related unsafe act	
c) Worker should STOP work and apply the corrective action before resuming	
d) Issuer of STOP CARD should prepare Near Miss Report at the earliest	
<b>Suspend Think Observe Proceed</b>	
<b>SUSPEND</b>	Suspend the Unsafe Act - Stop your work
<b>THINK</b>	Think - What is the Corrective Action / Corrective Behavior
<b>OBSERVE</b>	Observe the Instructions - Implement the corrective actions
<b>PROCEED</b>	Proceed with your work - Resume your work



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# Ch. 10 Operation and Maintenance of Equipment



Document Number:

## SMS / Z-M-10.00.00 Operation and Maintenance of Equipment

- Planned Maintenance Procedures
- Survey of ships
- Critical Equipment Standards
- Dock Repairs
- Navigational Equipment
- Windlass and Mooring Winch
- Steering Equipment
- Main Diesel Engines
- Exhaust Gas Economizer
- Preventive Maintenance of Propeller Shaft
- Bilge and Waste Oil Operations
- Fuel and Lube Oil Quality Control
- Technical and Potable Water control



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# Ch. 10 Operation and Maintenance of Equipment

Document Number:

## SMS / Z-M-10.00.00 Operation and Maintenance of Equipment

- Main Steam Turbine Engine
- Main Boiler And Plant
- Main Feed Pump
- LSA / FFA / Fire Protection
- Hull Inspection on Tankers and Gas Carriers
- Hull Inspection on Dry Vessels
- Mooring Hawsers and Tail Ropes
- Wires, Ropes (other than Hawsers) and Loose Gears
- Ladders
- Exposed Hydraulic Hoses
- Control of Measuring Equipment
- Functional Testing of Equipment
- Explosive Rated Electrical & Intrinsically Safe Equipment
- Vibration Measurement



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<http://aims.fao.org>

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# Case study





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# Unit No. 6 Bottom End Bearing



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# Counter Weight Damage



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## Damage to Casing



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# Unit No.6 Liner Seat Damage



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# Case Study

## Time Line

**June 19, 2013** - At sea started overhauling Dg no.4

**June 25, 2013** - At sea completed overhauling DG. No.4

**June 26, 2013** - After several test carried —out run for continues operation until trouble occurs.

**13th July, 2013**

**23:09 HRS LT** - **DG.No.4 ACB abnormal trip and shut down**, followed by various alarms  
DG.No.3 automatically started for back-up power.

**23:10 HRS LT** - Duty Oiler acknowledged alarm and inform duty 3rd Engineer about the situation.

**23:12 HRS LT** – 3<sup>rd</sup> engineer arrived in control room, check monitor about the alarms and call the attention of 2 engineer about DG. No. 4 shut down then rush to scene with oiler



# Case Study

## Time Line

- 23:15 HRS LT** - 2nd engineer arrived in control room and proceed directly to DG No.4 on ER 3rd deck and **found out oil, cooling water and broken parts scattered around flooring of DG no.6 cylinder**, in no time with engineer and oiler closed all fuel oil, lube oil and cooling water valves.
- 23:18 HRS LT** - 2" engineer call Chief engineer, 1st engineer, other oiler and fitter about the situation then 2/AE went back to DG. To find-out the extent of trouble.
- 23:21 HRS LT** - Chief engineer arrive in control room with electrician, chief engineer rush, directly to DG no.4 and investigate **found out piston, liner, connecting rod, counterweight, crankcase doors p/s and port side cylinder block upper part of crankcase frame blown off.**  
Electrician on control room started to reset all breakers that tripped off.
- 23:22 HRS LT** - 1st engineer and other engine hands proceeded directly to DG. No.4 and started cleaning spilled oil and water on the vicinity , while other crew refilling expansion tank.
- 23:30 HRS LT** - Chief engineer and other engineers completed assessing the extent of trouble on DG. No.4 and found damage overwhelming and dg beyond repair, crew continued cleaning DG. no.4 vicinity of oily water and securing scattered broken parts.



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# Case Study

## Time Line

**23:50 HRS LT** - Chief engineer informed master about the incident on Dg. No.4 and immediately call by telephone back-up VM in Singapore and informed about the trouble.

**14 July 2013**

**00:10 HRS LT** - Engine room running machineries all back to normal.

**00:30 HRS LT** - Prepared engine for departure

**01:10 HRS LT** - Completed cleaning and securing around DG. No. 4

**01:25 HRS LT** - Bridge informed engine that departure is canceled.

**01:30 HRS LT** - Master called by telephone VM about the trouble with DG.No.4

**13:00 HRS LT** - Vessel departed form Yangshan, China to Balboa.



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# Case Study





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# Case Study

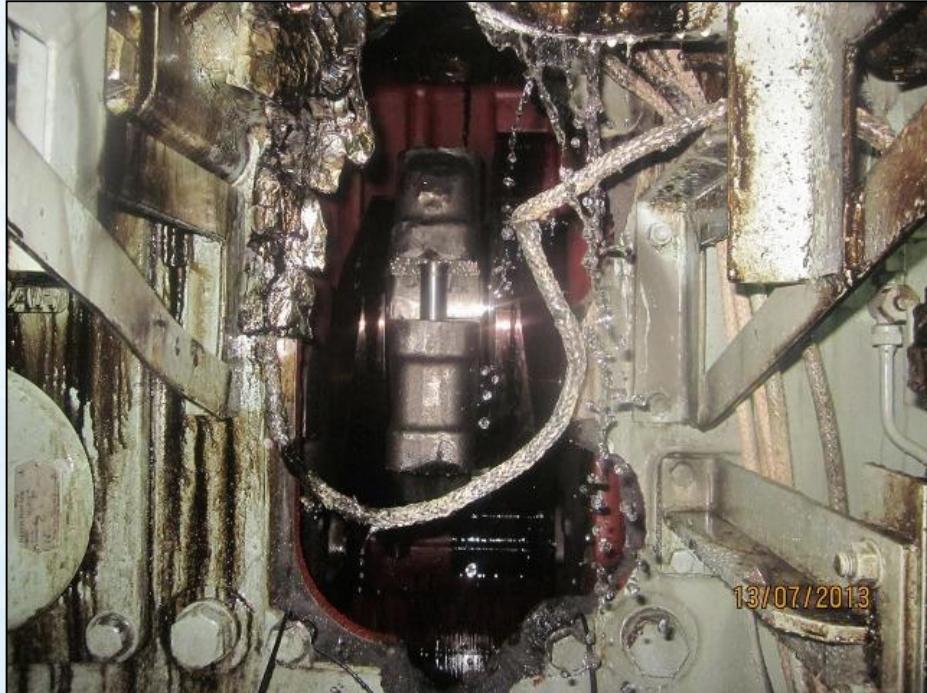




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# Case Study

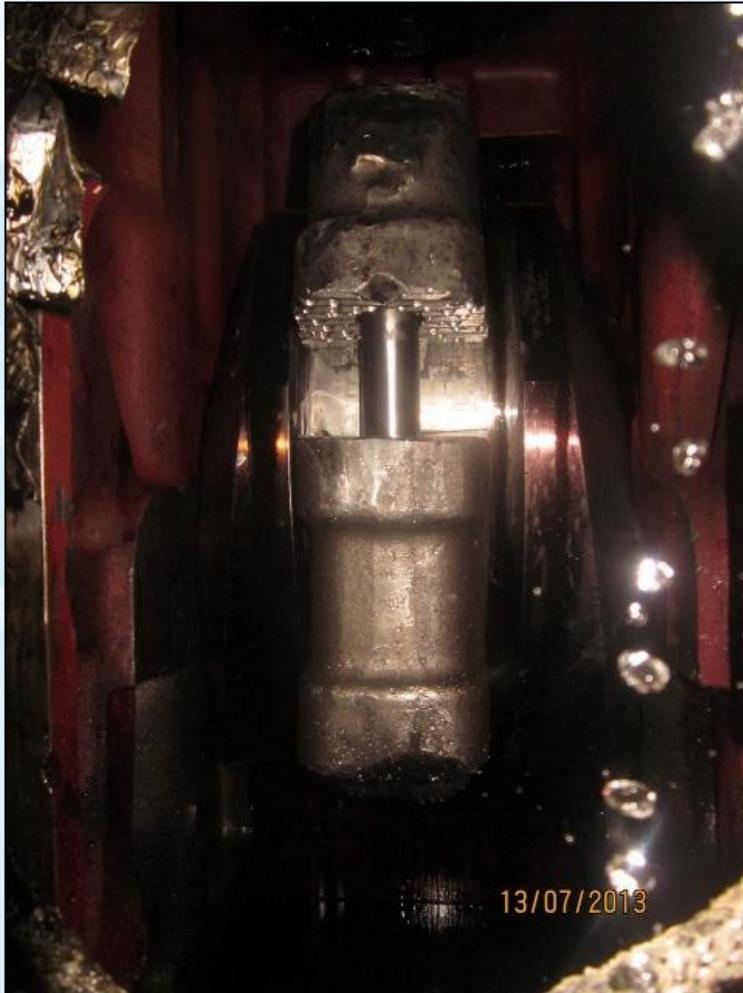




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# Case Study





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# Case Study

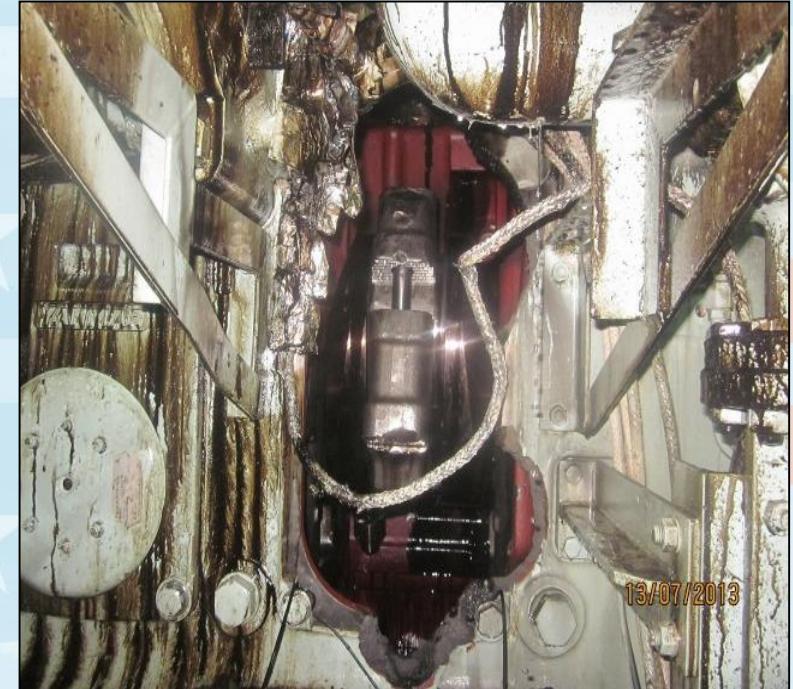




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# Case Study





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# Case Study





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# Case Study

## Counter Measures

Before any major maintenance on critical machinery such as diesel generator engine is carried out, a work plan must be prepared indicating time line of work and persons involved with their respective duties.

This plan must be sent to Vessel Manager for approval. Work may be commenced only after approval from Office is received.

Maintenance on board must be carried out in accordance with manufacturer's instruction manual always. Relevant content in instruction manual must be discussed prior commencing job as part of pre-job meeting.

In addition, use of videos and other aids must be employed by Senior Engineers to educate and familiarize other crew regarding work to be carried out.

Before commencing important jobs such as major overhaul of diesel generator engine, C/E and 1/E should ensure that all other machinery are in good working order and no maintenance is overdue that may lead to breakdown. It is highly recommended that attention is focused on the major job at hand and multiple jobs are not attempted at the same time.



# Case Study

## Counter Measures

When major overhaul of diesel generator engine is carried out, the following important points should be kept in mind :

Important stages of overhaul such as assembly of piston, connecting rod, top & bottom end bearing as well as tightening of cylinder head and adjusting the engine for correcting operation should be carried out personally by a Senior Engineer (C/E or 1/E) only. This job may not be assigned to a Junior Engineer.

After major overhaul of engine, gradual running and testing should be carried out in accordance with engine manufacturer's recommendation. During each stage of testing, engine covers and doors should be opened and tightness of bolts should be confirmed. In particular, it is important to note that during assembly of bottom end bearing, initial marking before tightening and final marking after tightening should be made. These markings should be confirmed during each inspection of crankcase.



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## Ch. 11 Crisis Management



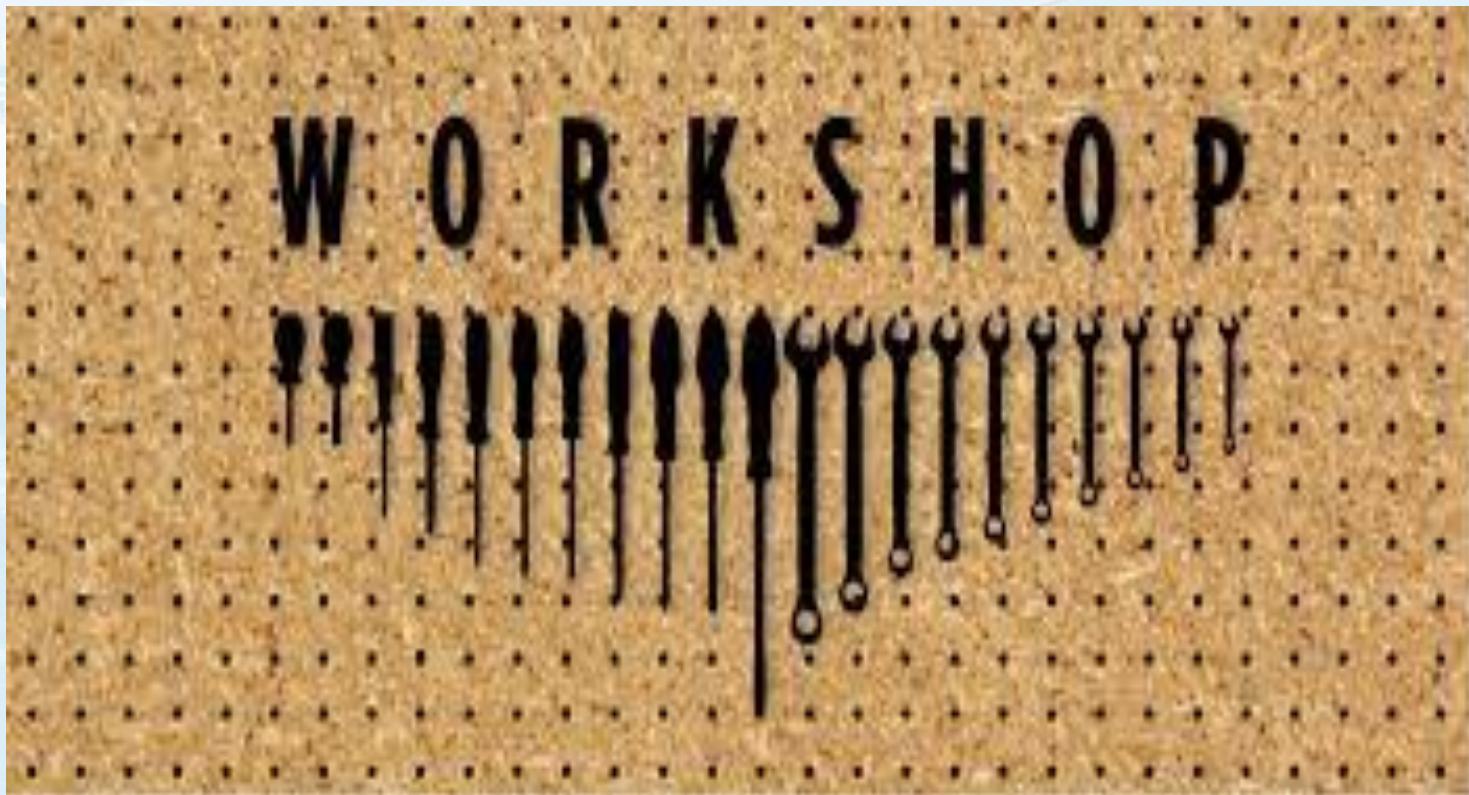
Document Number:

### SMS / Z-M-11.00.00 Crisis Management

- Standard Muster Station
- Channel of Emergency Communications between Company & Ship
- Records and Reports of Marine Accident
- Drills and Training on Board
- Shipboard Contingency Plan
- Emergency Response
- Media Handling



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<http://nextoptim.com>

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<https://i.ytimg.com>



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# Fire In Cargo Hold



- Fire occurred on board NYKSM managed container vessel on 19th October 2004, 23.55 hours SMT (21:55 Z) (3 Days prior arrival at Southampton via Mediterranean sea)



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## Fire In Cargo Hold

- Ship's staff investigated the nature and extent of the fire and made the decision to fully flood the hold with CO<sub>2</sub> in order to extinguish the fire. Additionally, the ship's hold sea water sprinkler system was activated; and also water injected into the hold via the CO<sub>2</sub> system. This was done for cooling purposes and to avoid the possibility for any re-ignition. The cargo hold was flooded to a level of around 4 meters.





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## Fire In Cargo Hold

- The ship staff showed a high degree of competence and professionalism in controlling and fighting the fire.
- They were also praised for managing and responding to the crisis by the Fire Brigade Officials at Southampton.



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# Fire on Deck(in Container)





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# Fire on Deck(in Container)



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# SAFETY CAMPAIGNS

## “Remember Nakanose”





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## SAFETY CAMPAIGNS

### "Sail on Safety"

Conducted for two months every winter in December and January, focusing primarily on rough winter-time weather.



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# NYK-STARS

NYK Shipboard Training & Assessment Records System



PCC-STARS  
Shipboard Module



VLCC-STARS  
Shipboard Module



CONTAINER-STARS  
Shipboard Module



LPG-STARS  
Shipboard Module



BULKER-STARS  
Shipboard Module



ENGINE-STARS  
Shipboard Module



CADET-STARS  
Shipboard Module-Deck



CADET-STARS  
Shipboard Module-Engine



SAFETY-STARS  
Safety STARS Module



Cadet-STARS 2008  
Engine Cadet Module



Heavy Cargo-STARS 2008  
Heavy Cargo Module



Save Bunker STARS  
Save Bunker Module



Cadet-STARS 2010  
Deck Cadet Module



Cadet-STARS 2010  
Engine Cadet Module



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# NYK-STARS

## Functioning of NYK-STARS

Shipboard Module



Onboard ship

After joining the vessel crew member must complete it within one month

After completion of training onboard, exporting file from Ship's module & sending to training center every alternate month

Office Module



NYKSM Office

After receiving file from ship, TM view the performance of each crew member onboard and provide feedback to the ship&management if additional training required by any crew member



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# NAV 9000

# NAV 9000

Specified Requirements for Safe Operation and Environmental Protection  
(For Use by Ship-Management Companies)



Third Edition

Third Edition Issued May 2010



**NYK**  
NIPPON YUSEN KAISHA  
LINE

An independently developed safety & environmental standard covering all aspects of ISM Code, ISO 9000 series, safe navigation and safe operation of ships

Nav-9000 Audit is carried out **ANNUALLY**



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December 2017 No.171

## NAV9000 Audit Feed Back

**NAV9000**

### Good Practice



Safe passage route clearly displayed

### Bad Practice



IMO Symbol faded



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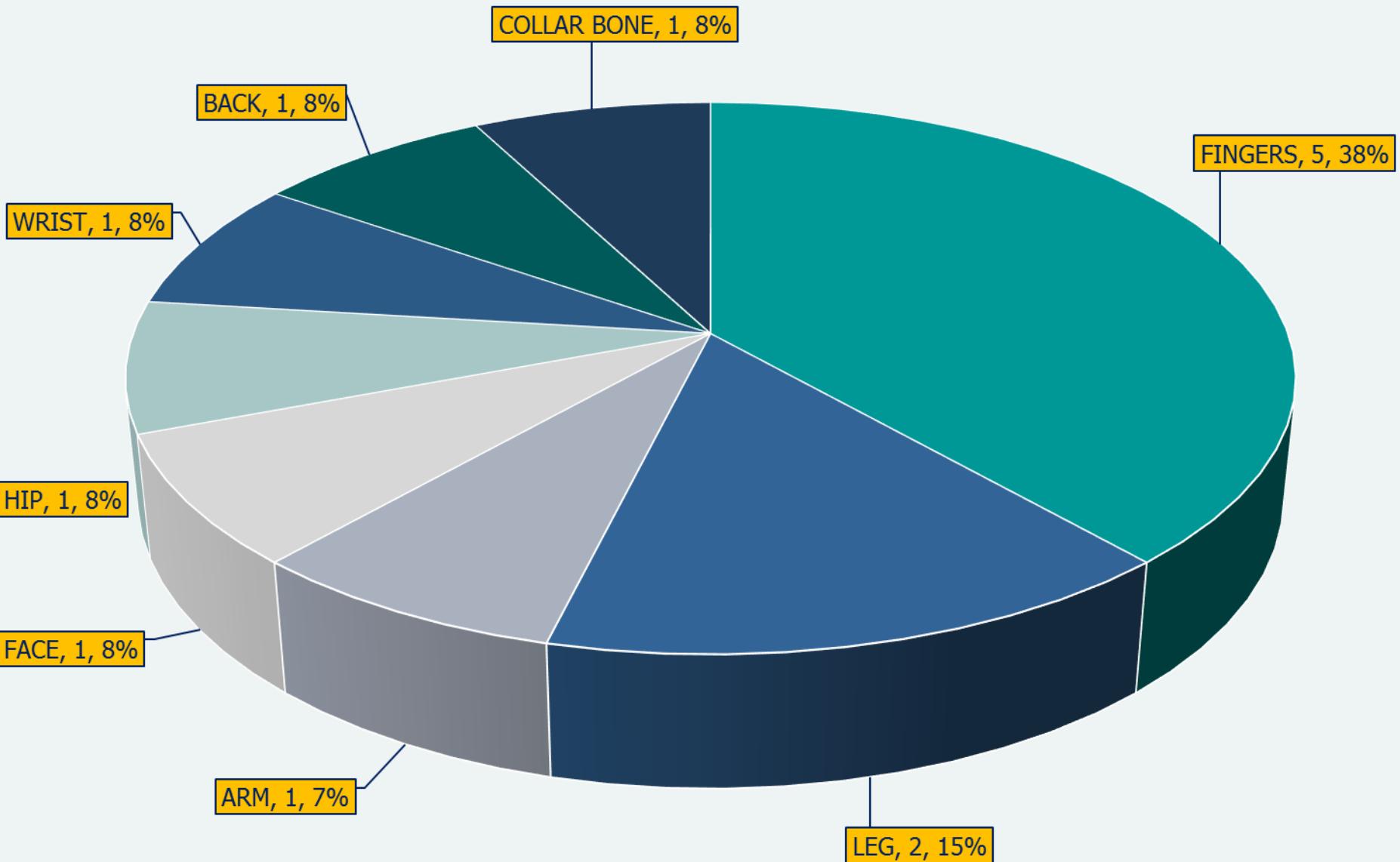


# PREVENTING FINGER INJURY CAMPAIGN

- Introduced 1<sup>st</sup> Sep '08 vide GI/FLT/037/08 due to considerable increase in finger injuries, as Lost Time Injury Cases.
- Reiterates the need for:
  - ✖ Ensuring proper job planning
  - ✖ Use of appropriate PPE
  - ✖ Following Safe working practices

Refer--GI / FLT / 018 / 16, the campaign is currently ongoing

## LOST WORKDAY CASES BY BODY PART INVOLVED



Source: NYKSM Singapore, 1st April-31<sup>st</sup> July 16 data



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# Finger Injury to Deck cadet

Incident details:

Date of Incident: 22 September 2017

Type of vessel: VLCC

Location: at sea – Bay of Bengal



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# Sequence of Events

- 22 Sept / 07:45 LT - Tool box meeting was carried out.
- 22 Sep / 08:10 LT - Additional C/O and Deck Cadet entered pump room for void space inspection.
- 22 Sep / 08:20 LT: Began opening void space manhole cover.
- 22 Sep / 08:30 LT - Deck Cadet sustained injury to his finger.



Manhole cover of the void space in the Pump room being opened up for inspection



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# Injury



Right hand little finger caught between the manhole handle and the bottom plate



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# Injury



Tip of the little finger on right hand injured.



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# Cause analysis

What were the causes and contributory factors ?



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## Causes and contributory factors

1. The locations of the lifting handles on the vertical manhole cover were not suitable.



Design of the Manhole cover handles

2. Using a chain block or other lifting gear to assist with the lifting, was not identified.

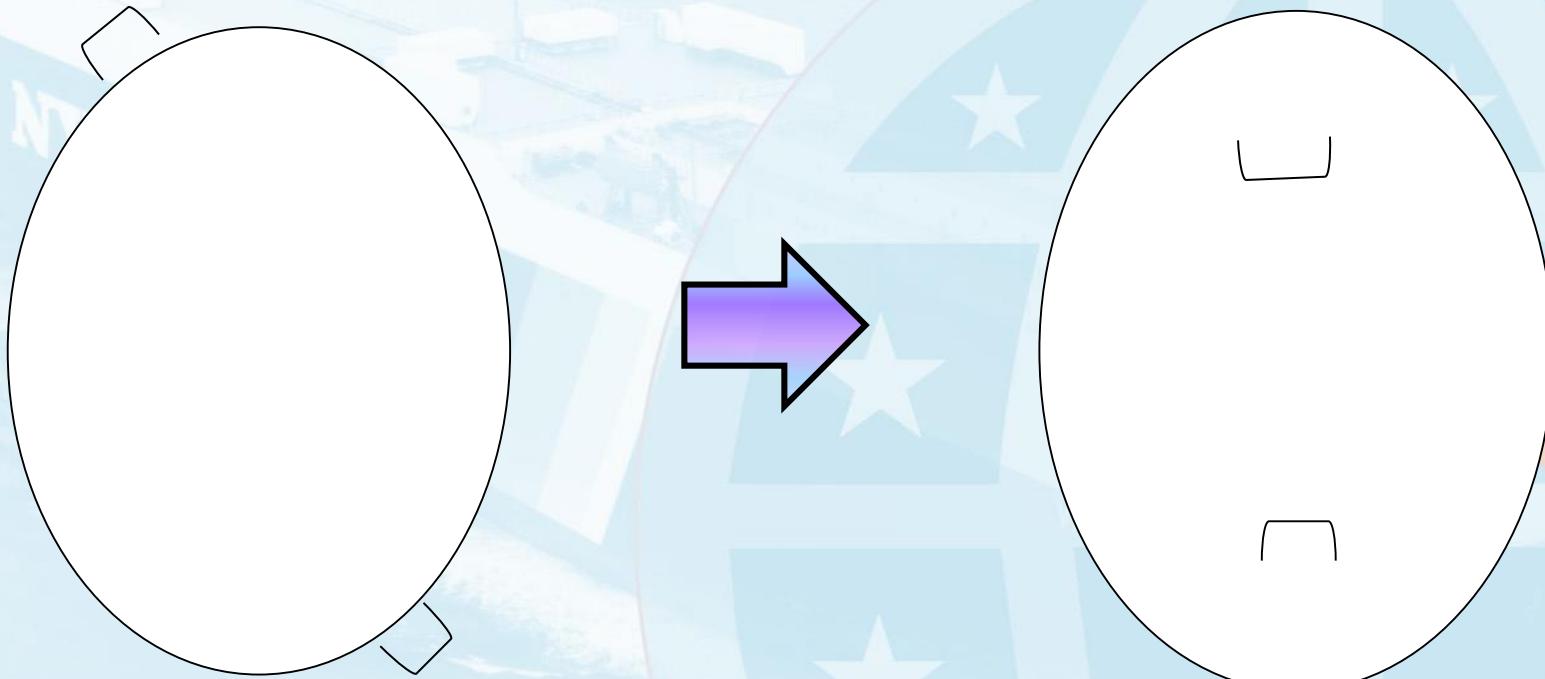


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# Countermeasures

1. The handles on the manhole covers were repositioned



2. All vessels instructed to identify similar conditions on board & suitably reposition the handles on manhole covers



## Case Study

- While carrying out 'O' ring replacement of lifting cylinder for the onboard deck lifter. To put the piston back in position the 1AE removed the wooden piece which was holding the piston eye, suddenly the piston rotated by 090 deg. and the 1AE right hand middle finger got caught under the piston eye causing the top part being completely cut off. He was given onboard treatment in consultation with company doctor ashore. He was repatriated home for further treatment.

07-Sep-2015

How will you prevent this from occurring on your Vessel ?

- **Immediate causes:**
- Failure to secure.
- Adverse weather condition
- **Root Cause :**
- SMS Procedures & instruction

Failure / Root Causes:

- 1) Lack of safe mind
- 2) Lack of SMS awareness
- 3) Risk not properly identified



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# EMS General Introduction

**NYK SHIPMANAGEMENT PTE. LTD has implemented Environmental Management System (E M S) and is certified in International standard ISO 14001:2004 under the umbrella of NYK LINE.**

**(Transition to ISO14001:2015 standards is currently in progress, likely to happen by end 2018)**



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Many of the requirements of the ISO 14001 standard are already addressed in the company's existing e-SMS Manual approved by Class NK, and under the ISM Rules to comply with MARPOL regulations.



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NYK Line has a ON LINE - EMS Manual  
accessible to NYKSM Singapore. All relevant  
requirements are addressed by the company  
through the e-SMS Manual, EMP and GI-ST  
Letters.

Rev 3.0 01/12/2010

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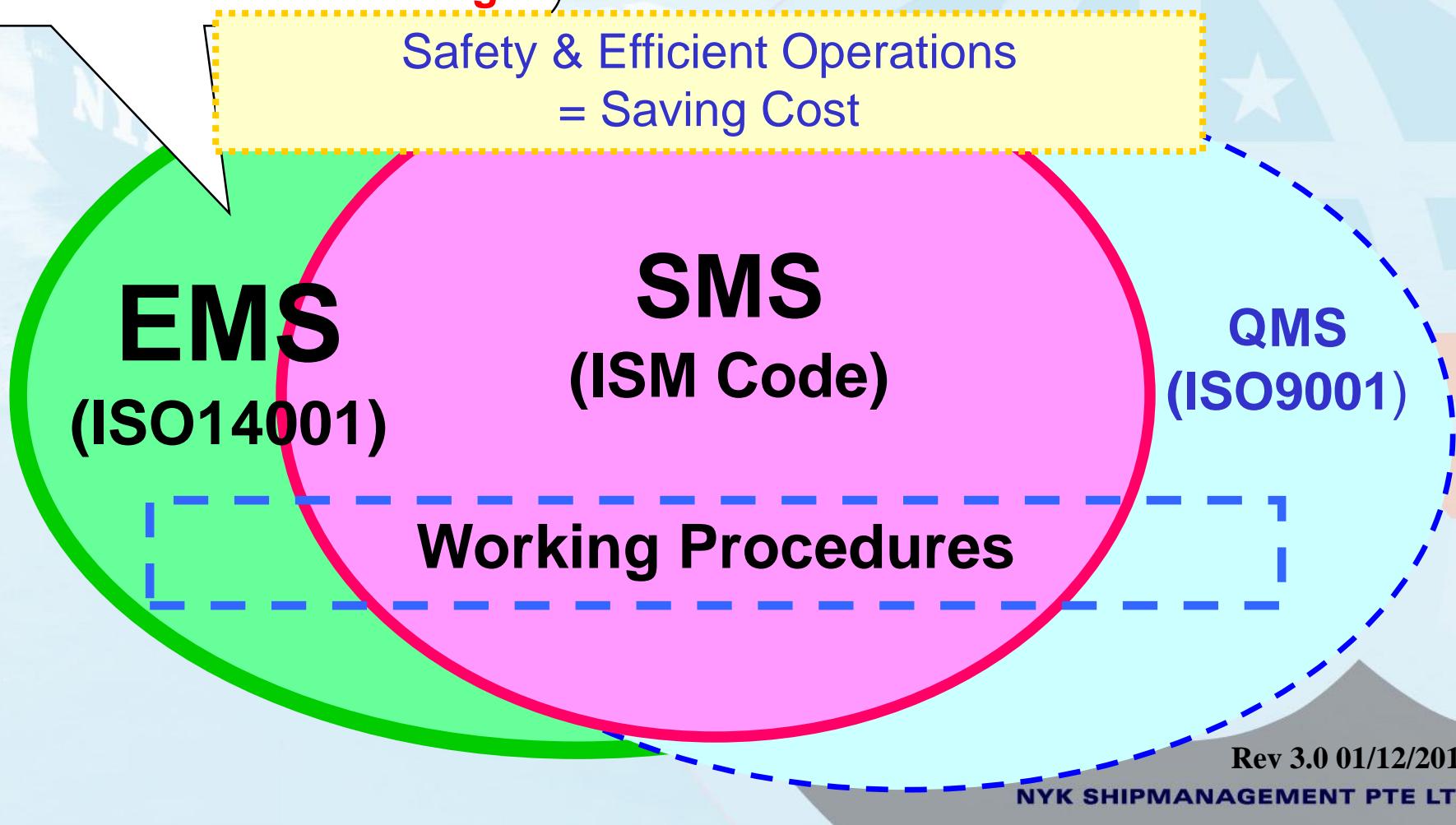


# Basic Concept

- Waste Reducing
- Green Purchasing
- Electric Power Saving



## Integration with other Management Systems





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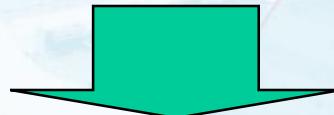
# ISO 14001 Standards



## Identification of Environmental Aspects and Impacts

### Input

Paper, Electricity, Materials, Energy, etc...



### Ships & Office

#### Environmental Aspects

- Activities
- Products
- Services



CO<sub>2</sub>, NOx, Sox, Black smoke, Bad smell, Noise,  
Vibration, Harmful substance, Waste etc...

### Output

Rev 3.0 01/12/2010

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# ISO 14001 Standards



## Environmental Impacts of Ship Operations

Leaks of chlorofluorocarbon gas

Emissions of greenhouse gases, such as SOx, NOx, & particulate matter

Marine pollution caused by collisions & groundings



Discharge of engine-room bilge

Discharge of ballast water

Elution of antifouling paint from the ship bottom

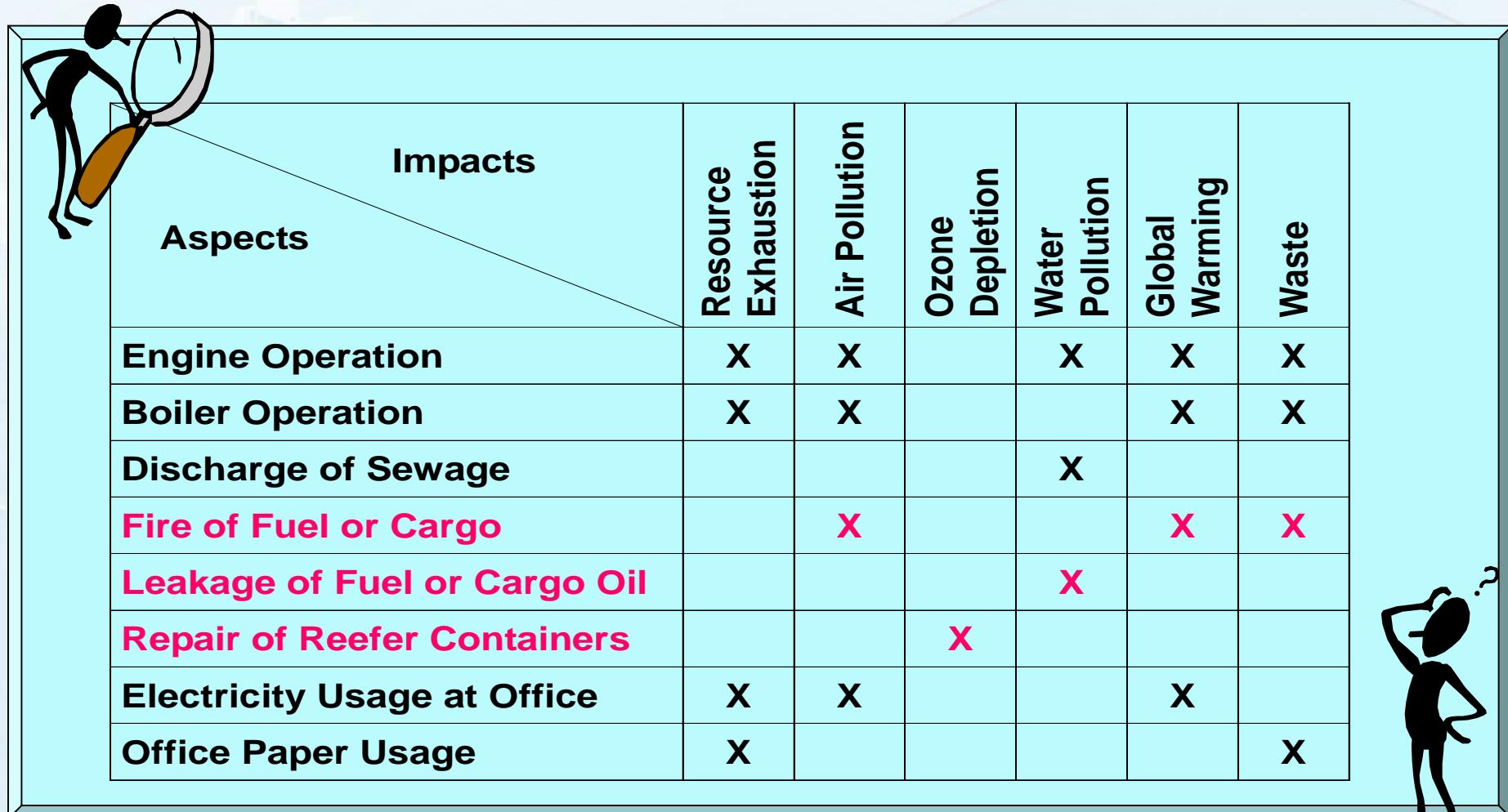


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# ISO 14001 Standards

## Evaluation of Environmental Impacts



Aspects	Impacts					
	Resource Exhaustion	Air Pollution	Ozone Depletion	Water Pollution	Global Warming	Waste
Engine Operation	X	X		X	X	X
Boiler Operation	X	X			X	X
Discharge of Sewage				X		
Fire of Fuel or Cargo		X			X	X
Leakage of Fuel or Cargo Oil				X		
Repair of Reefer Containers			X			
Electricity Usage at Office	X	X			X	
Office Paper Usage	X					X



# EMP



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<EMS M-040000 OGFRM>

## NYK SHIPMANAGEMENT PTE. LTD

### FY 2016 - 2017 Environmental Management Plan - NYKSM (Vessels)

GREEN POLICY	OBJECTIVES	TARGETS	ACTION BY VESSELS TO ACHIEVE TARGETS	INDEX TO CHECK ACHIEVEMENT	Related department	Assessment / Evaluation	Criteria A / B
1 Adopt responsible practices with due regard to the environmental impacts of our corporate activities. We will constantly review objectives and targets for achieving our goal to protect our entire global environment. (Continual Improvement)	Maintain and Continually update EMS	i-SMS serving as a core for EMS, to be onboard. To receive EMP from office and implement.  ii) Utilise Indicators such as CARs, Observations and records for improvements	0 To Comply with SMS, its revisions, GVT Letters, Circulars, EMP etc.  i) Comply with international laws and regulations a) Comply with MARPOL convention b) Get approval of Ballast Water Management Plan (BWM)  ii) e-SMS Revise iii) GVT Inspections iv) MARPOL inspection	Audit reports (No of CARs) - Periodic Management reviews	Vessel + Fleet Management Dept + HSQE Dept		
2 Seek not only to comply with safety and environmental regulations but also to implement in-house standards to improve our environmental performance and prevent pollution. (Comply with safety and environmental laws and regulations)	(A) Comply with safety and environmental laws and regulations	a) Comply with international laws and regulations b) Get approval of Ballast Water Management Plan (BWM)	0 To Comply with SMS, its revisions, GVT Letters, Circulars, EMP etc.  i) Comply with international laws and regulations a) Comply with MARPOL convention b) Get approval of Ballast Water Management Plan (BWM)  ii) e-SMS Revise iii) GVT Inspections iv) MARPOL inspection	Audit reports (No of CARs) - Periodic Management reviews	Vessel + Fleet Management Dept + HSQE Dept		
3 Commit ourselves to the safe operation of all our logistics services via sea, land, and air transport modes, including not only our containerizing vessels but also our tankers, bulkers and air transport services, as well as terminal and warehouse operations. (Ensuring safe operation)	Risk Accidents / Incidents	a) Reduce downtime affecting vessels in operation to 10 hours per ship/year b) Zero Fatal Accident  c) LTIF < 0 d) Zero Environmental incident e) Near Miss/Avg(j) > 10 per vessel per month f) Vetting deficiency rate (Tankers and Gas Carriers) < 2.50 per inspection (Gas Carrier) < 0 per inspection Rightship/ Final deficiency rate (Bulk Carriers) < 4	0 Conduct internal audits and evaluate the effectiveness of compliance with SMS procedures i) Internal audits and evaluate the effectiveness of compliance with SMS procedures ii) Environmental campaign iii) Single theme check lists, flag essentials incidents bulletins discussion iv) Proper execution of PMS and comply with SMS maintenance instructional/procedures	Conduct internal audits and evaluate the effectiveness of compliance with SMS procedures i) Internal audits and evaluate the effectiveness of compliance with SMS procedures ii) Environmental campaign iii) Single theme check lists, flag essentials incidents bulletins discussion iv) Proper execution of PMS and comply with SMS maintenance instructional/procedures	Vessel		
	Minimize the environment damage caused by oil spill accident	a) Onboard Training and Education of All Shipboard Staff and provide Contingency Planning  b) Emergency response Exercise (One vessel per fleet)	0 Conduct on board drills as per SMS "ZZ-5" p.11.10.03 (Oil/Spill and Training on Board) and Improve as per Drill Evaluation as required. ii) Comply with SOPEP, SMS Chapter 11 - Emergency Response and Vessel Response Plans as per OEW-90 Discuss feedback on board and/or participate in Ship-Shore exercise (Office to carry out emergency response and notification exercises with selected vessels, involve QI and other	Conduct on board drills as per SMS "ZZ-5" p.11.10.03 (Oil/Spill and Training on Board) and Improve as per Drill Evaluation as required. ii) Comply with SOPEP, SMS Chapter 11 - Emergency Response and Vessel Response Plans as per OEW-90 Discuss feedback on board and/or participate in Ship-Shore exercise (Office to carry out emergency response and notification exercises with selected vessels, involve QI and other	Vessel		

Sent to all NYKSM ships every year  
vide GI/Letter

# As an example, Environmental Targets for the Fiscal Year 2017-18 are as follows:

S. N.	Pollutant	KPI
1	Garbage	All Fleet (except Bulk Fleet) < 4 m <sup>3</sup> (per vessel / month) Bulk Fleet < 6 m <sup>3</sup> (per vessel / month)
2	Paper	Bulk Fleet < 4 reams (per vessel / month, 1 ream = 500 Pages) PCC / Container Fleet < 5 reams (per vessel / month) Tanker/LPG/LNG Fleet < 6 reams (per vessel / month)
3	Refrigerant ( Ozone Depleting Substances )	All Fleet < 3.5 kg (per vessel / month)
4	SOx	In ECA & Non ECA - 100 % Compliance
5	NOx	100% compliance as per NOx Technical file
6	CO2	-
7	Sewage (Sewage treatment plant breakdown)	Zero Breakdown of sewage treatment plant
8	Ballast water exchange	100% ballast exchange compliance
9	Anti-Fouling paint (Organotin free Anti fouling paint)	100% compliance to use Organotin free Anti fouling paint
10	Volatile organic compound (VOC) - For Tanker vessels only	100% utilization of vapour emission control system (VECS) where offered by shore



NYK Maritime College

(SEMC-NYKSM)



**Dy. CEM - NYKSM**

**(EMT – NYKSM)**

**(SSG – NYKSM)**



**SHIP Masters**

**Satellite Branch- NYKSM  
(Tokyo / Mumbai Offices)**

Rev 3.0 01/12/2010

NYK SHIPMANAGEMENT PTE LTD



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Doc. No.: EMS-M-01.00.00-E  
Date: 2013/04/01  
Form No.EMS-M-010000-06FIG

Issue : CEM  
Approve : EMS CEM



## Organization

NYK SHIPMANAGEMENT PTE LTD

Figure

### 1. Regional Safety and Environmental Organization

#### NYKSM – ENVIRONMENTAL ORGANIZATION (as of 10 Apr 2017)

**Secretariat**  
(GM-HSEQ & Marine Operations)

Capt. Girish Mandlik

**SEMC – NYKSM** (Safety and Environmental Management Committee)  
 Chairperson (CEO) (Capt. Masao Nakaya)  
 Executive Chairperson (MD& COO) (Mr H.S. Pathania)  
 DPA (HSEQ) (Capt. Taro Matsushige)  
 Executive Member (GM-Tanker Fleet) (Capt. N. Shiromoto)  
 Executive Member (GM-Fleetsupport) (Mr. T. Mishima)  
 Executive Member (GM – Maritime HR) (Capt. Shigeru Ezaki)  
 Executive Member (GM – Dry Cargo B) (Mr. M.G. Valsakumar)  
 Executive Member (DGM - Tanker - B) (Mr. A. Garg)

**DY. CEM - NYKSM** (Deputy Chief of Environmental Management )  
HSEQ & Marine Operations Manager - Capt. Anand Dubey

#### EMT - NYKSM (Environmental Management Team)

Member (HSEQ & Marine Operations Manager) - Capt. Yohei Tai  
 Member ((HSEQ & Marine Operations Manager) - Capt. V. Venugopal  
 Member (HSEQ & Marine Operations Manager) - Capt. R. Bali  
 Member (HSEQ & Marine Operations Manager) - Capt. Nansi Purendu  
 Member (HSEQ & Marine Operations Manager) - Capt Ashwani Kumar

**SSG-NYKSM (Satellite Support Group)**

DGM Admin & HR	- Ms. Allison Chan
Crewing Manager (Maritime HR)	- Capt. Michio Suzuki
Vessel Manager (Dry Cargo A)	- Mr. Yogesh Ramalingom
HSEQ & Marine Operations Manager	- Capt. Alok Singh
Admin/HR Deputy Manager	- Ms. Keiko Endo
Purchase (DGM)	- Ms. Geraldine Tan

**Ship's Masters**

**Satellite Branch - NYKSM Tokyo Office**  
(EF) Capt. Osamu Sugiyama

**Satellite Branch - NYKSM India (Including Field offices)** (EF) Capt. Anuraj Singh

**Satellite Branch - NYKSM Manila RHQ (EF)**  
Mr. Keshav Agarwala

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# Deputy Chief of Environmental Management

(DCEM - NYKSM)  
Capt ANAND DUBEY



Link Between the Ship & Shore

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CSR Report 2016  
The corporate social responsibility policy and  
activities of the NYK Group

NYK Maritime College



# What is CSR?

## BUSINESS TO SOCIETY

Society's Choice in Transportation



Corporate Social Responsibility

This Report is Published Once a year  
by NYK Line



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NYK SHIPMANAGEMENT PTE LTD

# Crew members are integral part of NYK Group's

## Mission and success





## Ship's staff



To Comply with e-SMS and other company circulars ( GI & ST Letters , HSEQ/ALL etc.)

- To comply with SOLAS , MARPOL and other Flag state requirements
- To follow E M P ( Environmental Management Plan)
- To Participate actively in various Environmental Campaigns



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## Ship's staff

- To Comply with e-SMS and other company circulars ( GI & ST Letters , HSEQ/ALL etc.)
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- To Participate actively in various Environmental



NYK Maritime College



# SMILE campaign

**Stay Motivated & Innovative – Let's Enjoy!**





NYK Maritime College



# SMILE Campaign ☺

## (Procedure)

- It is **very simple and easy**. We request vessels to take photos of ship's staff, showing them smiling.
- We will **share** selected pictures to all NYKSM vessels

## (Purpose)

- To motivate all staff on board & in office and **to have fun!**

## (Period)

- Oct. 2017 to Jun. 2018

***This campaign is a part of Power + activity***





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**SMILE  
DELIVERY**



**Stay Motivated & Innovative Let's Enjoy!  
NYK SHIPMANAGEMENT**

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ARIES LEADER



NYK SHIPMANAGEMENT



Gas Taurus



Castor Leader



TENYO



Orion Leader

**SMILE**  
Delivery



**NYK ORPHEUS  
SMILES**

**Stay Motivated & Innovative Let's Enjoy!**





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# SMILE

## "MV CEPHEUS LEADER"



NYK SHIPMANAGEMENT



NYK SHIPMANAGEMENT PTE LTD



NYK Mariti



Elegant Salute



Frontier Coronet

SMILE  
DELIVERY



NY



NYK SHIPMANAGEMENT PTE LTD





SMILE  
DELIVERY



PCC FLEET (DRY CARGO A FLEET)  
Stay Motivated & Innovative Let's Enjoy!  
NYK SHIPMANAGEMENT



# SMILE DELIVERY



MANILA OFFICE (DRY CARGO D FLEET)  
Stay Motivated & Innovative Let's Enjoy!



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**We believe that "Happy", "Smile",  
"Enjoy" onboard make best "Quality".**



NYK Maritime College



On behalf of NYK, many thanks for attending this course.

We wish you all safety, good health, efficiency and professionalism in your career.

Questions.....?  
Comments.....?  
Suggestions.....?

