

سازمان بنادر و دریانوردی

دستورالعمل اجرایی برگزاری دوره آموزشی تطبیقی سمت

افسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر - سفرهای نامحدود

The code of practice for conducting Chief Mate on ships of Gross Tonnage (GT≥3000) engaged on Unlimited Voyages Upgrading Training Course

کد مدرک: P6-W119

شماره بازنگری	تاریخ بازنگری	شرح تغییرات (علت و ممل)	تهیه کننده	تأیید کننده	تصویب کننده
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صفحه ۱ از ۱۰





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## مقدمه

سازمان بنادر و دریانوردی در راستای اجرای وظایف و اختیارات قانونی ناشی از ماده ۱۹۲ قانون دریایی جمهوری اسلامی ایران مصوب شهریور ماه ۱۳۴۳ و بند ۱۰ ماده ۳ آئین نامه تشکیل سازمان بنادر و دریانوردی مصوب بهمن ماه ۱۳۴۸ کمیسیون های خاص دو مجلس که صدور هر گونه سند یا گواهینامه و پروانه مربوط به کشتی، فرماندهان، افسران و کارکنان کشتیها را در صلاحیت این سازمان قرار داده و در راستای رعایت مفاد کنوانسیون بین المللی استانداردهای آموزش، صدور گواهینامه و نگهداری دریانوردان (STCW- as amended) مصوب مرداد ماه ۱۳۷۵ مجلس شورای اسلامی ایران و با عنایت به بند ۴ از مقرر ۱/۱۱ کنوانسیون مذکور ، این "دستورالعمل اجرایی برگزاری دوره آموزشی تطبیقی سمت افسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر ( GT≥3000 ) - سفرهای نامحدود " را تدوین نموده و پس از تصویب هیأت عامل سازمان قابل اجرا می باشد.

**یادداشت:** قانون تغییر نام سازمان بنادر و کشتیرانی به سازمان بنادر و دریانوردی در تاریخ ۱۳۸۷/۰۲/۱۰ به تصویب مجلس شورای اسلامی رسید.





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## ۱- هدف از تدوین

هدف از تدوین این دستورالعمل ارائه حداقل نیازمندیهای برگزاری دوره آموزشی تطبیقی سمت افسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر (GT ≥ 3000) - سفرهای نامحدود می باشد.

## ۲- دامنه کاربرد

این دستورالعمل برای کلیه مراکز آموزشی مورد تایید سازمان و مجری برگزاری دوره آموزشی تطبیقی سمت افسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر (GT ≥ 3000) - سفرهای نامحدود، کاربرد دارد.

## ۳- تعاریف

اصطلاحات استفاده شده در راستای اهداف این دستورالعمل دارای معانی ذیل می باشند.

### ۱-۳ دستگاه نظارت مرکز (Central Monitoring Office):

به معنای اداره یا بخشی که وظیفه صدور مجوز فعالیت آموزش دریانوردی و نظارت بر مراکز آموزشی را بر عهده دارد. دستگاه نظارت در ستاد سازمان، اداره استانداردهای دریانوردان می باشد. مدیر کل امور دریانوردان نیز جزء دستگاه نظارت مرکز بوده و می تواند صدور مجوز فعالیت آموزش دریانوردی و نظارت بر مراکز آموزش دریانوردان را تایید نماید.

### ۲-۳ گواهینامه شایستگی دریانوردی (Certificate of Competency):

به معنای گواهینامه صادره طبق مفاد بند ۵,۴ این دستورالعمل برای فرماندهان، افسران و کاربران مخابرات می باشد و دارندهی قانونی آن محق به خدمت در سمت و عمل به وظایف مربوطه در سطح مسئولیت مشخص شده در آن است.

### ۳-۳ افسر اول (Chief Mate):

به معنای افسر عرشه ای است یک درجه پایینتر از فرمانده که بر اساس مفاد مربوطه این دستورالعمل واجد شرایط بوده و در مواقع عدم توانایی فرمانده، مسئولیت فرماندهی کشتی را بر عهده می گیرد.

### ۴-۳ دستورالعمل (Code of Practice):

به معنای مجموعه قوانین، مقررات ملی و الزامات مندرج در این دستورالعمل است که توسط اداره کل امور دریانوردان تدوین و به تصویب هیات عامل سازمان رسیده است.





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### ۵-۳ شرکت کشتیرانی (Company):

به معنای مالک کشتی، هر شخصی مانند مدیر، یا اجاره کننده در بست کشتی است، که مسئولیت عملیات کشتی از طرف مالک کشتی بر وی فرض شده است، و با قبول چنین مسئولیتی، کلیه وظایف و مسئولیت‌های محول شده بر شرکت توسط این دستورالعملها را بر عهده گرفته است.

### ۶-۳ کنوانسیون (Convention):

به معنای کنوانسیون اصلاح شده بین المللی استانداردهای آموزشی، صدور گواهینامه و نگرهبانی دریانوردان (STCW-78 as amended) می باشد.

### ۷-۳ گواهی طی دوره (Course Completion Certificate or Documentary Evidence):

به معنای گواهی است که مرکز آموزشی مورد تایید سازمان به فراگیر پس از گذراندن موفقیت آمیز دوره مربوطه ارائه می دهد.

### ۸-۳ ظرفیت ناخالص کشتی (Gross Tonnage):

به معنای ظرفیت ناخالص حجمی محاسبه شده شناور بر اساس مقررات مربوطه می باشد.

### ۹-۳ آئین نامه ی امنیت کشتی ها (ISPS Code):

به معنای آئین نامه بین المللی امنیت کشتی ها و تسهیلات بندری است که در تاریخ ۲۰۰۲ میلادی طی قطعنامه شماره ۲ کنفرانس دولتهای متعاقد به کنوانسیون بین المللی ایمنی جان اشخاص در دریا ۱۹۷۴ ( SOLAS) به تصویب رسیده و ممکن است توسط سازمان بین المللی دریانوردی براساس اصلاحیه های بعدی تغییر یابد.

### ۱۰-۳ سطح مدیریتی (Management Level):

به معنای سطحی از مسئولیت اطلاق می گردد که مرتبط با وظایف مدیریتی فرمانده، افسر اول، افسر سرمهندس و افسر مهندس دوم در کشتیها می باشد و همچنین آنها را ملزم به حصول اطمینان از انجام مطلوب وظایف محوله بر روی کشتی در حیطه مسئولیت هایشان می نماید.

### ۱۱-۳ فرمانده (Master):

به معنای شخصی است که عهده دار فرماندهی کشتی می باشد.

### ۱۲-۳ گواهینامه سلامت پزشکی (Medical Fitness Certificate):

به معنای گواهینامه ای است که توسط پزشک معتمد سازمان طبق دستورالعمل مربوطه و جهت متقاضیانی که از نظر پزشکی از سلامت برخوردار باشند، صادر می گردد.



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### ۳-۱۳ کشتی تجاری (Merchant Ship):

به معنای هر نوع شناوری است (به استثنای شناورهای خدماتی، سکوهای متحرک فراساحلی، صیادی و یا نظامی) که در امر جابجایی کالاهای تجاری، مسافر و بار تسهیلات مربوط به کالاهای تجاری بکار گرفته می شود.

### ۳-۱۴ ماه (Month):

جهت محاسبه خدمت دریایی هر ماه متشکل از ۳۰ روز می باشد.

### ۳-۱۵ سازمان (Ports & Maritime Organization):

به معنای سازمان بنادر و دریانوردی جمهوری اسلامی ایران می باشد.

### ۳-۱۶ مقررات (Regulations):

به معنای مجموعه مقررات مندرج در کنوانسیون و آئین نامه می باشد.

### ۳-۱۷ خدمت دریایی (Seagoing Service):

به معنای مدت زمان دریانوردی بر روی کشتی است که می بایست مرتبط با صدور و یا تجدید گواهینامه های شایستگی و یا مهارت در یانوردان می باشد.

### ۳-۱۸ گواهی خدمت دریایی (Seagoing Service/ Documentary Evidence):

به معنای تأییدیه خدمت دریایی دریانوردان جهت شرکت در دوره های آموزشی، آزمونهای دریانوردی و صدور گواهینامه های دریانوردی می باشد که علاوه بر ثبت در شناسنامه دریانوردی، توسط شرکت کشتیرانی/ مالک کشتی و یا اتحادیه مالکان کشتیها به صورت فرم کامپیوتری (computer sheet)، نامه اداری شماره شده و یا فرم تعریف شده (به ضمیمه این دستورالعمل) قابل ارائه می باشد.

### ۳-۱۹ کشتی دریا پیمای (Seagoing Ship):

به معنای کشتی است به غیر از آنهاثیکه منحصرأ در آبهای سرزمینی، نزدیک یا مجاور آبهای پناه گاهی و یا مناطق مشمول مقررات بندری، تردد میکنند.

### ۳-۲۰ آئین نامه ی کنوانسیون (STCW Code):

به معنای آئین نامه ی استانداردهای آموزش، صدور گواهینامه و نگرهبانی دریانوردان که طی قطعنامه ی شماره ۲ کنفرانس سال ۱۹۹۵ میلادی تصویب و ممکن است توسط سازمان بین المللی دریانوردی بر اساس اصلاحیه های بعدی تغییر یابد، می باشد.



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### ۲۱-۳ مرکز آموزشی (Training Center):

به معنای دانشگاه، شرکت، موسسه یا هر ارگانی که بر اساس مجوز اخذ شده از سازمان در زمینه آموزشهای دریانوردی فعالیت می کند.

### ۲۲-۳ سفرهای نامحدود (Unlimited Voyages):

به معنای سفرهای بین المللی که محدود به سفرهای نزدیک به ساحل نباشد.

### ۴- مسئولیتها

۴-۱ مسئولیت بازنگری این دستورالعمل بر عهده دستگاه نظارت مرکز می باشد.

۴-۲ مسئولیت تایید اصلاحیه ها به این دستورالعمل بر عهده اداره کل امور دریانوردان می باشد.

۴-۳ مسئولیت تصویب اصلاحیه ها به این دستورالعمل بر عهده معاون امور دریایی به نیابت از هیات عامل سازمان می باشد.

۴-۴ مسئولیت اجرای کامل دوره آموزشی بر اساس عناوین اعلام شده بر عهده مرکز آموزشی می باشد.

۴-۵ مسئولیت نظارت بر حسن اجرای این دستورالعمل در مراکز آموزشی دریانوردی بر عهده دستگاه نظارت مرکز می باشد.

### ۵- روش اجرا:

#### ۵-۱ هدف از برگزاری دوره آموزشی

هدف از برگزاری این دوره آموزشی ، تطبیق فراگیران با توانمندی های مندرج در بند ۲-۶-۵ دستورالعمل اجرایی برگزاری دوره آموزشی و آزمونهای شایستگی دریانوردی سمت افسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر (GT≥3000) - سفرهای نامحدود، می باشد.

#### ۵-۲ طول دوره

۵-۲-۱ طول دوره حداقل ۵۶ ساعت و بر اساس ۴۶ ساعت نظری (تئوری) و ۱۰ ساعت عملی می باشد.

۵-۲-۲ حداکثر مدت زمان آموزش روزانه برای هر فراگیر ۸ ساعت می باشد.





### ۳-۵ تعداد شرکت کنندگان در دوره

۳-۵-۱ حداکثر فراگیران شرکت کننده در هر دوره ۲۰ نفر می باشد.

۳-۵-۲ در صورت افزایش حداقل فضا، تجهیزات و امکانات کمک آموزشی مرتبط بر اساس دستورالعمل صدور مجوز و نظارت بر اجرای دوره ها در مراکز آموزشی دریانوردی و پس از اخذ تاییدیه از دستگاه نظارت ذیربط، تعداد شرکت کنندگان در دوره می تواند حداکثر تا ۳۰ نفر افزایش یابد.

### ۴-۵ شرایط ورود به دوره

۴-۵-۱ دارا بودن گواهینامه سلامت پزشکی معتبر بر اساس دستورالعمل مصوب سازمان

۴-۵-۲ دارا بودن گواهینامه شایستگی سمت افسر اول (صادر به بر اساس اصلاحیه ۱۹۹۵) بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر (GT≥3000) - سفرهای نامحدود و یا گواهی طی موفقیت آمیز دوره مذکور.

### ۵-۵ دانش، درک و مهارت مورد انتظار

۵-۵-۱ توانایی برقراری ناوبری ایمن با بکارگیری از تجهیزات کمک ناوبری به منظور کمک در ارائه تصمیم گیری مناسب

۵-۵-۲ توانایی حفظ ایمنی دریانوردی از طریق استفاده از ECDIS و سیستمهای ناوبری مربوطه به منظور کمک در ارائه تصمیم گیری مناسب

۵-۵-۳ توانایی در حمل کالاهای خطرناک با کشتی

۵-۵-۴ توانایی در پایش و کنترل انطباق با قوانین ومقررات جهت اطمینان از:

- ایمنی جان افراد در دریا

- حفاظت از محیط زیست دریایی

۵-۵-۵ توانایی در حفظ ایمنی و امنیت خدمه و مسافران

۵-۵-۶ توانایی در سازماندهی و مدیریت خدمه

### ۶-۵ عناوین دروس و ریز مواد درسی

عناوین دروس و ریز مواد درسی برای داوطلبین دوره آموزش تطبیقی سمت افسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر (GT≥3000) - سفرهای نامحدود ، به شرح ذیل می باشد.

۶-۵-۱ حداقل مواد درسی دوره آموزش تطبیقی سمت افسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر (GT≥3000) - سفرهای نامحدود در بخش انگلیسی این دستورالعمل می باشد.







سازمان بازرسی و آموزش دریایی

دستورالعمل اجرایی برگزاری دوره آموزشی تئوری ست اسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر - سربازی محدود  
The code of practice for conducting Chief Mate on ships of Gross tonnage  
(GT ≥ 3000) engaged on Unlimited Voyages Upgrading Training course

کد مدرک : P6-W119/1

شماره صفحه : ۹ ( ۱۰ )

## ۵-۷ امکانات مورد نیاز جهت برگزاری دوره

جهت برگزاری دوره آموزشی علاوه بر فضای آموزشی قید شده در "دستورالعمل صدور مجوز و نظارت بر اجرای دوره ها در مراکز آموزشی دریانوردی" مصوب سازمان ، تجهیزات کمک آموزشی مشروحه زیر نیز مورد نیاز می باشد:

۵-۷-۱ سالن / کلاسها می بایست مجهز به سیستم تهویه و نور کافی و وسایل سمعی و بصری و امکانات مورد نیاز برای تدریس باشد (وسایل کمک آموزشی شامل: وایت بورد/ تخته سفید، کامپیوتر و دستگاه ویدئو پروژکتور چند رسانه ای، پرده ویدئو پرژکتور)

۵-۷-۲ کتابخانه مجهز به کتب تخصصی مورد نیاز تدریس و اطلاعات جامع دیگر در خصوص دوره

۵-۷-۳ فیلم های آموزشی مرتبط در خصوص دوره.

۵-۷-۴ تجهیزات کمک آموزشی مرتبط با دوره

## ۵-۸ شرایط مدرسین و مربیان دوره

۵-۸-۱ مدرسین و مربیان دوره آموزشی مندرج در این دستورالعمل می بایست ، علاوه بر گذراندن دوره مدرس و آشنایی با اصلاحیه ۲۰۱۰ مانیل به کنوانسیون و مورد تأیید سازمان ، دارای حداقل مدارک و تجارب مشروحه زیر باشند:

۵-۸-۱-۱ مدرسین:

۵-۸-۱-۱-۱ دارای گواهینامه شایستگی معتبر فرماندهی بر روی کشتیهای با ظرفیت ناخالص  $GT \geq 3000$  سفرهای نامحدود با حداقل ۱۲ ماه خدمت دریایی در این سمت.

۵-۸-۱-۲ مربیان:

۵-۸-۱-۲-۱ دارای حداقل مدرک تحصیلی فوق دیپلم دریایی (ناوبری) با حداقل ۲ سال خدمت دریایی باشند.

## ۵-۹ ارزیابی و صدور گواهینامه

۵-۹-۱ در صورت موفقیت فراگیران در ارزیابی های حین و یا پایان دوره ، گواهی طی موفقیت آمیز دوره مربوطه توسط مرکز آموزشی مورد تایید و مجری برگزاری دوره صادر می گردد ؛ و

۵-۹-۲ متعاقباً اداره امتحانات و اسناد دریانوردان سازمان بر اساس مفاد دستورالعمل صدور ، تمدید و تجدید گواهینامه های دریانوردان و رعایت دیگر شرایط لازم ، گواهینامه دریانوردی مرتبط صادر می نماید.



### ۱۰-۵ شرایط تمدید / تجدید گواهینامه

گواهینامه های شایستگی و مهارت دریانوردی بر اساس مفاد دستورالعمل صدور ، تمدید و تجدید گواهینامه های دریانوردان ، تمدید و یا تجدید می گردد.

### ۱۱-۵ روش تأیید دوره

تأیید دوره بر اساس مفاد مندرج در دستورالعمل صدور مجوز و نظارت بر اجرای دوره ها در مراکز آموزش دریانوردی صورت می پذیرد.

### ۶-سوابق

کلیه سوابقی که نشان دهنده رعایت موارد مندرج در این دستورالعمل باشد.

### ۷-مراجع

۷-۱ دستورالعمل صدور ، تمدید و تجدید گواهینامه های دریانوردان

۷-۲ دستورالعمل اجرایی برگزاری دوره آموزشی و آزمونهای شایستگی دریانوردی سمت افسر اول بر روی کشتیهای با ظرفیت ناخالص ۳۰۰۰ یا بیشتر - سفرهای نامحدود (P6-W118) ؛ و

۷-۳ دستورالعمل صدور مجوز و نظارت بر اجرای دوره ها در مراکز آموزشی دریانوردی

### ۸- ضمیمه

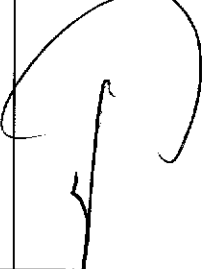

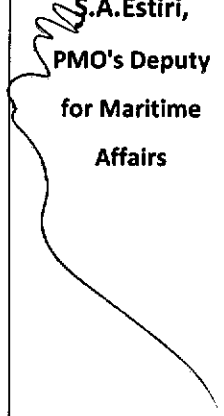
ندارد.



**PMO**

***The Code of Practice for Conducting Chief Mate on ships of Gross Tonnage (GT≥3000) engaged on Unlimited Voyages Upgrading Training Course***

**P6-W119**

Revision No.	Date of revision	Comment on revision	provider	approving amendments authority	endorsing amendments authority
01	18.AUG.2014	STCW Convention, as amended	N. Alipour, Head of Seafarers' Standards' Directorate 	H. Mirzaei, Director General of Seafarers' Affairs 	S.A.Estiri, PMO's Deputy for Maritime Affairs 

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## Introduction

Ports and Maritime organization (P.M.O) of the Islamic republic of Iran in performing its duty and in exercising its prerogative resulting from article 192 of the Islamic republic of Iran maritime code, 1964 and paragraph 10 of article 3 of P.M.O manifesto, 1970 enabling it to issue any document, certificate or license for ships, masters, officers and other ship personnel and also in accordance with the provisions of the international convention on standards of training, certification and watch keeping for seafarers (STCW), 1978, as amended adopted by the Islamic consultative assembly in 1996 and taking into account regulations I/11 , paragraph 4 of the mentioned Convention, develops this "code of practice for conducting Chief Mate on ships of Gross Tonnage  $GT \geq 3000$  engaged on unlimited voyages upgrading training course" which is applicable after endorsement by the board of executives of Ports & Maritime Organization.

**NOTE:** The title of Ports and Shipping Organization changed to Ports and Maritime Organization dated 29.04.2008 through parliamentary act and approved by Islamic council assembly.





## 1-Objective

The objective of this code of practice is to specify the minimum requirements for conducting Chief Mate on Ships of Gross Tonnage GT≥3000 engaged on Unlimited Voyages upgrading training course.

## 2-Scope of application

This code of practice is applicable to all approved training centers that conduct Chief Mate on Ships of Gross Tonnage GT≥3000 engaged on Unlimited Voyages upgrading training course.

## 3-Definition

For the purpose of this Code of Practice, unless expressly provided otherwise:

### 3-1 Central Monitoring Office

Central monitoring office which is responsible for approving and monitoring training courses is the Seafarer's standard directorate of the PMO.

### 3-2 Certificate of Competency (COC)

Means a certificate issued and endorsed for masters, officers and GMDSS radio operators in accordance with the provisions of chapters II, III, IV or VII of the STCW Convention and entitling the lawful holder thereof to serve in the capacity and perform the functions involved at the level of responsibility specified therein.

### 3-3 Chief Mate

Means the officer next in rank to the master and upon whom the command of the ship will fall in the event of the incapacity of the master.

### 3-4 Code of Practice

Means all national rules, regulations and requirements specified in this document which have been drafted by the PMO's General Directorate of Maritime affairs and endorsed by the PMO's board of executive

### 3-5 Company

Means the owner of the ship or any other organization or person such as the manager, or the bareboat charterer, who has assumed the responsibility for operation of the ship from the ship owner and who, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed on the company by these Codes of practices.

### 3-6 Convention

Means international convention on standards of training, certification and watch keeping for Seafarers, 1978, as amended.

### 3-7 Course Completion Certificate or Documentary Evidence

Means a certificate issued through the training center, after successfully completion of training program by the applicants





### **3-8 Gross Tonnage**

Means the volume of all enclosed spaces of a vessel calculated in accordance with relevant regulations.

### **3-9 ISPS Code**

Means the International Ship and Port Facility Security (ISPS) Code adopted on 12 December 2002, by resolution 2 of the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, as may be amended by the Organization.

### **3-10 Management Level**

Means the level of responsibility associated with serving as master, chief mate, chief engineer officer and second engineer officer on board a seagoing ship, and also ensuring that all functions within the designated area of responsibility are properly performed.

### **3-11 Master**

Means the person having command of a ship

### **3-12 Medical Fitness Certificate**

Means a certificate issued by the PMO's recognized medical practitioner to the candidates who found to be medically fit.

### **3-13 Merchant Ship**

Means any ship (other than servicing vessel, mobile offshore platform, fishing and naval ships) used for carriage of cargoes, passenger and/or provisions

### **3-14 Month**

Means a calendar month or 30 days made up of periods of less than one month.

### **3-15 PMO**

Means Ports & Maritime Organization (PMO) of the Islamic Republic of Iran

### **3-16 Regulations**

Means regulations contained in the annex to the STCW Convention

### **3-17 Seagoing service**

Means service on board a ship relevant to the issue or revalidation of a certificate or other qualification.

### **3-18 Seagoing Service / Documentary Evidence**

Means approved sea going service required to be presented for participating in a training course, maritime examination and issuance of certificate. These documentary evidence should be inserted in CDC and authenticated by company or ship owner or ship owner's associations and in addition be presentable in a form of computer sheet, official letter or other forms as defined in the annex to this code of practice.





### **3-19 Seagoing Ship**

Means a ship other than those which navigate exclusively in inland waters or in waters within, or closely adjacent to, sheltered waters or areas where port regulations apply.

### **3-20 STCW Code**

Means the seafarers' training, certification and watch keeping (STCW) code as adopted by the 1995 conference resolution 2, as it may be amended by the international maritime organization.

### **3-21 Training center**

Means maritime university/center/ directorate/ department/company and/or any organization conducting maritime training course approved by PMO

### **3-22 Unlimited Voyages**

Means voyages not limited to the near coastal voyages.

## **4 Responsibilities:**

4-1 Central monitoring office is responsible for revising this code of practice.

4-2 General Director of Seafarers' Affairs is responsible for approving amendments to this code of practice.

4-3 Deputy of maritime affairs is responsible to endorse amendments to this code of practice on behalf of PMO's board of executive.

4-4 Training centers are to conduct training course in accordance with this Code of practice.

4-5 Central monitoring office is responsible for supervising the implementation of this code of practice in training centers.

## **5 Procedures:**

### **5-1 course objective**

The objective of this training course is to upgrade the competencies of trainees to those set out in paragraph 5-6-2 of the "code of practice for conducting Chief Mate on Ships of Gross Tonnage GT≥3000 engaged on Unlimited Voyages training course and competency assessments".

### **5-2 course duration**

5-2-1 a minimum of 46 hours theoretical and 10 hours practical for each trainee (total of 56 hours).

5-2-2 Maximum daily contact hours for each trainee is 8 hours.







### **5-3 number of trainees**

5-3-1 the maximum number of trainees in each course is 20.

5-3-2 the number of trainees may be increased to 30 when the relevant facilities, teaching aids and class-room space are increased as per criteria set out in the code of practice for approving and monitoring training courses and is approved by the relevant monitoring office.

### **5-4 Course entry requirement**

The course trainees should, at least;

5-4-1 holding valid medical fitness certificate, issued in accordance with the provisions of the relevant code of practice; and;

5-4-2 hold certificate of competency as Chief Mate on Ships of Gross Tonnage GT≥3000 engaged on Unlimited Voyages or course completion certificate of mentioned capacity.

### **5-5 Expected Knowledge, Understanding and Proficiency**

5-5-1 Ability in maintaining a safe navigational watch by use of navigational aids for assist in command decision making;

5-5-2 Ability to maintain safety of navigation by use of ECDIS and other navigational aids for assist in command decision making;

5-5-3 Knowledge of carriage of dangerous goods;

5-5-4 Proficiency in monitoring and controlling compliance with legislation to ensure, Safety of life at sea, Protection of the marine environment;

5-5-5 Ability in contribution to safety and security of personnel and ship and passengers;

5-5-6 Ability in leadership and team working skills;





## 5-6 Course minimum syllabi

### 5-6-1 Mandatory minimum syllabi requirements for upgrading Chief Mate on Ships of Gross Tonnage GT≥3000 engaged on Unlimited Voyages

#### 1. Enhanced Loran (e-Loran) 1hrs (T) + 0hrs (P) + 0hrs (E).

##### Knowledge of;

- The operating principles of e-Loran and that it is a terrestrial navigation system.
- That e-Loran is an independent, dissimilar, complement to Global Navigation Satellite Systems (GNSS).
- That the principal difference between e-Loran and traditional Loran-C is the addition of a data channel on the transmitted signal.
- That the e-Loran will allow GNSS users to retain the safety, security, and economic benefits of GNSS, even when their satellite services are disrupted.
- That each user's e-Loran receiver will be operable in all regions where an e-Loran service is provided and e-Loran receivers shall work automatically, with minimal user input.
- That the core e-Loran system comprises of modernized control centers, transmitting stations and monitoring sites.
- That e-Loran transmissions are synchronized to an identifiable, publicly-certified, source of Coordinated Universal Time (UTC) by a method wholly independent of GNSS.
- That e-Loran users' receivers operate in an all-in-view mode. That is, they acquire and track the signals of many Loran stations (the same way GNSS receivers acquire and track multiple satellites) and employ them to make the most accurate and reliable position and timing measurements.
- That an important bonus of using e-Loran – something GNSS cannot provide – is the e-Loran compass. How, when the receiver is used with an H-field (Magnetic Loop) antenna it can be employed as an automatic direction finder taking bearings on the transmitting stations. From these, the receiver calculates the ship's heading, generally with an accuracy of better than 1°, and independent of the ship's movement.
- The limitation of the e-Loran system receiver.

#### 2. Long Range Identification and Tracking (LRIT) 1hrs (T) + 0hrs (P) + 0hrs (E).

##### Knowledge of;

- That the purpose of LRIT is to improve maritime safety, security, assist with search, and rescue (SAR) purposes.
  - That the LRIT system consists of the ship-borne LRIT information transmitting equipment, the Communication Service Provider(s), the Application Service Provider(s), the LRIT Data Centre(s), including any related Vessel Monitoring System(s), the LRIT Data Distribution Plan and the International LRIT Data Exchange.
  - That the availability of information from LRIT transmissions is restricted to contracting IMO member states and administrations and it is not available to third parties or other ships.
  - That the ship-borne LRIT equipment is:
    - Capable of automatically transmitting the ship's LRIT information at 6 hour intervals to an LRIT Data Centre without human intervention on board the ship;
    - Capable of being configured remotely to transmit LRIT information at variable intervals;
    - Capable of transmitting LRIT information following receipt of polling commands;
    - Interface directly to the ship-borne global navigation satellite system equipment, or has internal positioning capability;
- Supplied with energy from main as well as emergency source of electrical Power;





- Tested for electromagnetic compatibility taking into account the recommendations developed by International Maritime Organization (IMO).
- That the position report from the ship is sent to a Data Centre via an Application Service Provider (ASP) utilizing a Communication Service Provider (CSP) and Position reports are automatically sent every six hours to the Data Centre and additional position reports may be requested by increasing the position reporting up to each 15 minutes or "polling" for an immediate position report by entitled Governments.
- The difference between LRIT and AIS is that, whereas AIS is a broadcast system, data derived through LRIT will be available only to the recipients who are entitled to receive such information; regulatory provisions will include safeguards concerning the confidentiality of data.

**Familiarity with;**

- The Data transmitted from the LRIT are:
  - Ship's identity;
  - Ship's position (Latitude and Longitude);
  - Time and date of transmission (associated with the GNSS position).
- That the following ships are required to transmit LRIT messages:
  - Passenger ships (including high-speed craft);
  - Cargo ships (including high-speed craft) of 300 gross tonnage and up;
  - Mobile offshore drilling units.
- That the ship-borne equipment should transmit the LRIT information using a communication system, which provides coverage in all areas where the ship operates.
- That there is no interface between LRIT and AIS.
- That SOLAS contracting Governments will be entitled to receive information about ships navigating within a distance not exceeding 1000 nautical miles off their coast.
- The limitations of the LRIT system.

**3. Voyage Data Recorder (VDR) and Simplified Voyage Data Recorder (S-VDR) 1hrs (T) + 0hrs (P) + 0hrs (E).**

**Knowledge of;**

- That Voyage data recorder (VDR) and Simplified Voyage Data Recorder (S-VDR) means a complete system, including any items required to interface with the sources of input data, for processing and encoding the data, the final recording medium in its capsule, the power supply and dedicated reserve power source.
- That the purpose of a voyage data recorder (VDR) and Simplified Voyage Data Recorder (S-VDR) is to maintain a store, in a secure and retrievable form, of information concerning the position, movement, physical status, command and control of a vessel over the period leading up to and following an incident having an impact thereon.
- That the Information contained in a VDR and S-VDR is made available to both the Administration and the ship owner and this information is for use during any subsequent investigation to identify the cause(s) of the incident.
- The operation of a VDR and S-VDR, that is it;
  - continuously maintains sequential records of preselected data items relating to the status and output of the ship's equipment, and command and control of the ship
  - Permits subsequent analysis of factors surrounding an incident, the method of recording ensures that the various data items are co-related in date and time during playback on suitable equipment. The final recording medium is installed in a protective capsule and in case of S-VDR of either a fixed or float-free type that meets all of the following requirements:
    - is capable of being accessed following an incident but secure against tampering;





- for VDR - it maximizes the probability of survival and recovery of the final recorded data after any incident;
  - for S-VDR –it maintains the recorded data for a period of at least 2 years following termination of recording;
  - is of a highly visible colour and marked with retro- reflective materials; and
  - is fitted with an appropriate device to aid location
- The requirements set out in MSC resolution A.861(20) on the fixed type protective capsule for S-VDR.
  - That the equipment is so designed that, as far as is practical, it is not possible to tamper with the selection of data being input to the equipment, the data neither itself nor that which has already been recorded, and any attempt to interfere with the integrity of the data or the recording is recorded.
  - That the recording method is such that each item of the recorded data is checked for integrity and an alarm is given if a non-correctable error is detected.
  - The continuity of operation of VDR and S- VDR.
  - The data items recorded in the VDR and S-VDR, which are:
    - date and time
    - ship's position
    - ship's speed
    - bridge audio
    - communications audio
    - radar data, post-display selection (or, for S- VDR only, AIS data if radar data is not available)In addition to the above data sets, a VDR should also record:
    - depth under the keel
    - status of all mandatory bridge alarms
    - rudder order and rudder position
    - Engine orders and engine response (rev/min or pitch), including any transverse - thrusters.
    - status of hull openings
    - Status of watertight doors and fire doors.
    - wind speed and direction
  - The Data output interface of VDR and S-VDR, that they provide an interface for downloading the stored data and playbacks the information to an external computer. This interface is compatible with an internationally recognized format, such as Ethernet, USB, FireWire, or equivalent.
  - The software for data downloading and playback.
  - That the ship owner, in all circumstances and at all times, owns the VDR and its information.
  - That in the event of an accident the owner of the ship makes all decoding instructions available as necessary to recover the recorded information and maintains the same.
  - The recovery and relevant information of VDR and S-VDR.
  - The custody, read-out and access to the VDR and S-VDR information.
  - The limitations of the receivers.

#### **4. Bridge Navigational Watch Alarm System (BNWAS)**

1hrs (T) + 0hrs (P) + 0hrs (E).

##### **Knowledge of;**

- That the carriage requirement of Bridge Navigational Watch Alarm Systems (BNWAS), is set out by SOLAS chapter V/19 and the requirements will be mandatory for new ships and phased-in for existing ships
- That the purpose of BNWAS is to monitor bridge activity and detect operator disability, which could lead to marine accidents





- That this purpose is achieved by a series of indications and alarms to alert first the OOW and, if he/she is not responding, then to alert the Master or another qualified OOW
- That the system monitors the awareness of the officer-on-watch (OOW) and automatically alerts the Master or other qualified OOW if for any reason the OOW becomes incapable of performing watch duties
- That additionally, the BNWAS may provide the OOW with a means of calling for immediate assistance if required
- That the BNWAS should be operational whenever the ship's heading or track control system is engaged, unless inhibited by the Master
- That the system has the following operational modes: Automatic, Manual On and Manual Off
- The operational sequence of indications and alarms:
  - once operational, the alarm system remains dormant for a period of between 3 and 12 min (Td- selected dormant period)
  - at the end of this dormant period, the alarm system initiates a visual indication on the bridge
  - if not reset, the BNWAS additionally sounds a first stage audible alarm on the bridge 15sec after the visual indication is initiated
  - if not reset, the BNWAS additionally sounds a second stage remote audible alarm in the back-up officer's and /or Master's location 15sec after the first stage audible alarm is initiated
  - if not reset, the BNWAS additionally sounds a third stage remote alarm at locations of further crew members capable of taking corrective actions 90 seconds after the second stage remote audible alarm is initiated
  - In vessels other than passenger vessels, the second or third stage remote audible alarms may sound in all the above locations at the same time. If the second stage audible alarm is sounded in this way, the third stage alarm may be omitted
  - states that in larger vessels, the delay between the second stage and third stage may be set to a longer value on installation, up to a maximum of 3 min, to allow sufficient time for back-up officer and /or Master to reach the bridge
  - list and explain the resetting function of the BNWAS, which are as follows;
  - it is not possible to initiate the reset or cancel any audible alarm from any device, equipment or system not physically located in areas of the bridge providing proper look out
  - The reset function does, by a single operator action, cancel the visual indication and all audible alarms and initiate a further dormant period. If the reset function is activated before the end of the dormant period, the period is re-initiated to run for its full duration from the time of reset
  - To initiate the reset function, an input representing a single operator action by the OOW is required. This input may be generated by reset devices forming an integral part of the BNWAS or by external inputs from other equipment capable of registering physical activity and mental alertness of the OOW
  - a continuous activation of any reset device does not prolong the dormant period or cause a suppression of the sequence of indications and alarms
  - explains that the emergency call facility may be provided on the bridge to immediately activate the second, and subsequently third stage, remote audible alarms by means of an "Emergency Call" push button or similar
  - explains that the means of selecting the operational mode and the duration of the dormant period (Td) is security protected so that access to these controls should be restricted to the Master only
  - describes the limitation of the system





**Familiarity with;**

- When BNWAS must be fitted to existing ships.

**5. Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision making**

4hrs (T) + 2hrs (P) + 0hrs (E).

**Knowledge of;**

- Management of operational procedures, system files and data, including:
  - manage procurement, licensing and updating of chart data and system software to conform to established procedures
  - system and information updating, including the ability to update ECDIS system version in accordance with vendor's product development
  - create and maintain system configuration and backup files
  - create and maintain log files in accordance with established procedures
  - create and maintain route plan files in accordance with established procedures
  - Use ECDIS log book and track history functions for inspection of system functions, alarm settings and user responses.
  - Use ECDIS playback functionality for passage review, route planning and review of system functions.

**6. Emergency Towing Arrangements and Towing Procedures**

1hrs (T) + 0hrs (P) + 0hrs (E).

**Knowledge of;**

- How to approach a disabled vessel and pass the first connection by line-throwing apparatus or other methods.
- How to pay out the towing wire under control.
- Methods of securing the towing wire at the towing ship.
- Why the wire is usually shackled to the anchor cable of the tow.
- The preparations made by the disabled ship.
- How to take the weight of the tow.
- How the towing speed should be decided.
- How to disconnect the tow on arrival at the destination.
- The emergency towing arrangements for all tankers of not less than 20,000dwt.

**Familiarity with;**

- That permission from the owners or charterers is usually required before towing, except for the purpose of saving life.
- That a coastal State may intervene when a disabled ship presents a potential risk to the environment.
- That early communication should be established between the vessels to agree on the method of connecting the tow.
- That both vessels should have everything prepared and have agreed on communication before the arrival of the towing ship.
- That the tow normally passes a messenger followed by a wire messenger to the towing vessel to haul across the towing line.
- That the towing wire should be protected from chafing at fairleads.





- That wire and cables should be inspected frequently and the nip freshened if any sign of wear or chafe is found.

**7. International regulations, standards, codes including the international maritime dangerous goods (IMDG) code and the international maritime solid bulk cargoes (IMSBC) code and recommendations on carriage of dangerous cargoes** 2hrs (T) + 0hrs (P) + 0hrs (E).

**Understanding of;**

- The content and applies the of International Regulations Standards, Codes and Recommendations on the carriage of dangerous cargoes, including the International Maritime Dangerous Goods (IMDG) Code and the International Maritime Solid Bulk Cargoes (IMSBC) Code, which aims primarily to facilitate the safe stowage and shipment of solid bulk cargoes by providing information on the dangers associated with the shipment of certain types of solid bulk cargoes and instructions on the procedures to be adopted when the shipment of solid bulk cargoes is contemplated plans loading, stowage and segregation in accordance with the IMDG Code.

**Familiarity with;**

- That the International Maritime Solid Bulk Cargoes Code (IMSBC Code) amplifies the mandatory provisions contained in the parts A and B of chapter VI and part A-1 of chapter VII, of the International Convention for the Safety of Life at Sea, 1974 (SOLAS Convention), as amended, governing the carriage of solid bulk cargoes and the carriage of dangerous goods in solid form in bulk, respectively.
- That the provisions contained in the IMSBC Code apply to all ships to which the SOLAS Convention, as amended, applies and that are carrying solid bulk cargoes as defined in regulation 2 of part A of chapter VI of the Convention.
- That the prime hazards associated with the shipment of solid bulk cargoes are those relating to structural damage due to improper cargo distribution, loss or reduction of stability during a voyage and chemical reactions of cargoes.
- That the primary aim of the IMSBC Code is to facilitate the safe stowage and shipment of solid bulk cargoes by providing information on the dangers associated with the shipment of certain types of solid bulk cargoes and instructions on the procedures to be adopted when the shipment of solid bulk cargoes is contemplated.
- That the observance of the Code harmonizes the practices and procedures to be followed and the appropriate precautions to be taken in the loading, trimming, carriage and discharge of solid bulk cargoes when transported by sea, ensuring compliance with the mandatory provisions of the SOLAS Convention.
- That typical cargoes currently shipped in bulk, together with advice on their properties and methods of handling, are given in the schedules for individual cargoes.
- That appendix 1 of the IMSBC Code, contains individual schedules of solid bulk cargoes.
- That if a solid cargo which is not listed in appendix 1 to this Code is proposed for carriage in bulk, the shipper shall, prior to loading, provide the competent authority of the port of loading with the characteristics and properties of the cargo in accordance with section 4 of this Code.
- That based on the information received, the competent authority will assess the acceptability of the cargo for safe shipment.
- That regulation 2 of the IMSBC Code states that, the shipper shall provide the master or his representative with appropriate information on the cargo sufficiently in advance of loading to enable the precautions which may be necessary for proper stowage and safe carriage of the cargo to be put into effect.





- That the fore mentioned information shall be confirmed in writing and by appropriate shipping documents prior to loading the cargo on the ship.
- That the cargo information shall include:
  - The Bulk Cargo Shipping Name (BCSN) when the cargo is listed in this Code. Secondary names may be used in addition to the BCSN;
  - the cargo group (A and B, A, B or C);
  - the IMO Class of the cargo, if applicable;
  - the UN number preceded by letters UN for the cargo, if applicable;
  - the total quantity of the cargo offered;
  - the stowage factor;
  - the need for trimming and the trimming procedures, as necessary;
  - the likelihood of shifting, including angle of repose, if applicable;
  - additional information in the form of a certificate on the moisture content of the cargo and its transportable moisture limit in the case of a concentrate or other cargo which may liquefy;
  - likelihood of formation of a wet base (see subsection 7.2.3 of this Code);
  - toxic or flammable gases which may be generated by cargo, if applicable;
  - flammability, toxicity, corrosiveness and propensity to oxygen depletion of the cargo, if applicable;
  - self-heating properties of the cargo, and the need for trimming, if applicable;
  - properties on emission of flammable gases in contact with water, if applicable;
  - radioactive properties, if applicable; and
  - any other information required by national authorities
- That as per definitions listed in the IMSBC Code, Bulk Cargo Shipping Name (BCSN) identifies a bulk cargo during transport by sea.
- That when a cargo is listed in this Code, the Bulk Cargo Shipping Name of the cargo is identified by capital letters in the individual schedules or in the index.
- That as per definitions listed in the IMSBC Code, Group A consists of cargoes which may liquefy if shipped at moisture content in excess of their transportable moisture limit.
- That as per definitions listed in the IMSBC Code, Group B consists of cargoes which possess a chemical hazard which could give rise to a dangerous situation on a ship.
- That as per definitions listed in the IMSBC Code, Group C consists of cargoes which are neither liable to liquefy (Group A) nor to possess chemical hazards (Group B).
- The content of section 2, General loading, carriage and unloading precautions, of the IMSBC Code.
- The content of section 3, Safety of personnel and ship, of the IMSBC Code.
- The information provided in appendix 1 of the IMSBC Code, which contains individual schedules of solid bulk cargoes.

**Ability to;**

- Plan loading and stowage in accordance with the IMSBC Code.

**8. Carriage of dangerous, hazardous and harmful cargoes; precautions during loading and unloading and care during the voyage of dangerous, hazardous and harmful cargoes**

**i. Dangerous Goods in Packages**      2hrs (T) + 0hrs (P) + 0hrs (E).

**Knowledge of;**

- The contents of the shipper's declaration of dangerous goods.  
The actions to take when documentation, packaging, labelling or the condition of packages does not meet the requirements of the IMDG Code.







- That a port authority may be empowered to refuse dangerous substances if it is considered that their presence would endanger life or property because of:
  - their condition
  - the condition of their containment
  - the condition of their mode of conveyance
  - conditions in the port area
- The inspections which may be made by a port authority.
- The signals as:
  - by day, flag 'B' of the International Code of Signals
  - by night, an all-round fixed red light
- How effective communications with the port authority can be maintained.
- The requirements regarding mooring a ship carrying dangerous substances.
- That the port authority should be informed of the intention to carry out repair work when dangerous substances are on board.
- The handling precautions which should be observed regarding:
  - avoidance of damage to packages
  - access to handling areas
  - lifting goods over dangerous goods stowed on deck
  - escape of a dangerous substance from a package entry into enclosed spaces
- The special precautions for loading or unloading explosives.

#### **Understanding of;**

- The marking and labelling required on packages or cargo units.
- That the documentation provided to the ship and the packaging and labelling of packaged dangerous cargo complies with the requirements of the IMDG Code.
- The appropriate action to take in emergency and medical first aid situations involving dangerous goods.
- 'dangerous substances', 'port authority', 'regulatory authority', 'designated port office' and 'responsible person' as used in the Recommendations on the Safe Transport, Handling and Storage of Dangerous Substances in Port Areas.

#### **Familiarity with;**

- That the IMDG Code is an evolving document and is updated every two years to take account of:
  - new dangerous goods which have to be included
  - new technology and methods of working with or handling dangerous goods
  - safety concerns which arise as a result of experience
- The explosives which may be carried on a passenger ship.
- Why additional labelling may be necessary to meet the requirements for through transport.
- That, if any dangerous substance constitutes an unacceptable hazard, the port authority should be able to order the removal of such substance or any ship, package, container, portable tank or vehicle containing it.
- That a port authority will normally require notification at least 24 hours in advance of the transport or handling of dangerous substances, including those which are not for discharge at that port.
- That the designated port officer should be empowered to:
  - direct when and where a ship having any dangerous substances on board may anchor, moor or berth
  - direct a ship to be moved within or to leave the port area





- attach conditions appropriate to local circumstances and the quantity and nature of the dangerous substances
- That the regulatory authority may require signals to be shown while transporting or handling dangerous substance.
- That at all times there should be sufficient crew on board to maintain a proper watch and operate appliances in the case of an emergency, taking into account the nature and quantity of dangerous substances on board.
- That a responsible person should be designated to supervise the handling of dangerous goods.
- The measures which should be taken by the responsible person in connection with:
  - the weather
  - lighting
  - protective clothing and equipment
  - intoxicated persons
  - fire and other emergency procedures
  - reporting of incidents and safety precautions

**Ability to;**

- Plan the stowage and segregation of a cargo containing dangerous goods when provided with the loading list, the copies of the shipper's declarations and the IMDG code to plan a stow and segregation and prepares the dangerous goods manifest and stowage plan for a cargo containing multiple dangerous good.
- Extract the relevant references to EmS and MFAG.

**ii. Solid Bulk Cargoes**      1hrs (T) + 0hrs (P) + 0hrs (E).

**Knowledge of;**

- The contents of the International Maritime Solid Bulk Cargoes (IMSBC Code).
- That certificates stating transportable moisture limits should be accompanied by a statement that the moisture content is the average moisture content at the time of presenting the certificate.
- How to distribute a high-density cargo between holds when detailed information is not available.
- How to prevent shifting of bulk cargo by reducing an excessively high GM.
- Precautions to take before, during and after loading of bulk cargo.
- The precautions to take to minimise the effect of dust on deck machinery, navigational aids and living quarters.
- The health hazards which may be associated with bulk materials.
- How to trim cargoes having an angle of repose:
  - less than or equal to 35 degrees
  - greater than 35 degrees
- How to stow material which flows freely like grain.
- The IMSBC code method for determining the approximate angle of repose on board ship.
- The types of cargo which may liquefy during carriage.
- That such cargoes may look relatively dry when loaded but liquefy as a result of compaction and vibration during the passage.
- The precautions to be taken to keep liquids out of holds where such cargoes are carried and the danger of using water to cool a shipment of these materials.
- The test for approximately determining the possibility of flow which may be carried out on board ship.
- That some materials are classified as dangerous goods in the IMDG code while others are Materials Hazardous only in Bulk' (MHB).





- The content the content and use of the following;
  - The BLU code
  - The BLU manual
  - MSC/Circ. 908 - Uniform Method of Measurement of the Density of Bulk Cargoes
  - MSC/Circ. 1146 - Lists of Solid Bulk Cargoes for which a Fixed Gas Fire-extinguishing System may be Exempted or for which a Fixed Gas Fire-extinguishing System is Ineffective
  - Res. A. 864(20) - Recommendations for Entering Enclosed Spaces Aboard Ships
  - MSC.1/Circ.1264 - Recommendations on the Safe Use of Pesticides in Ships Applicable to the Fumigation of Cargo Holds
  - BC.1/Circ.66 - Contact Names and Addresses of the Offices of Designated National Competent Authorities Responsible for the Safe Carriage of Grain and Solid Bulk Cargoes
- The list of materials possessing chemical hazards is not exhaustive, that the properties listed are for guidance only and that it is essential to obtain currently valid information about bulk materials before loading.
- The use of the tables for segregation between incompatible bulk materials and between bulk materials and dangerous goods in packaged form.

**Familiarity with;**

- That the main hazards associated with the shipment of bulk solids are:
  - structural damage due to improper distribution of the cargo
  - loss or reduction of stability during a voyage
  - chemical reactions
- The information which should be supplied by the shipper to the master before loading.
- That a certificate stating the relevant characteristics of the material should be provided to the master at the loading point.
- That the loading instrument, loading information and the ship's stability information book should be used to check the suitability of a proposed stow for stresses and stability.
- That safety precautions and any appropriate national regulations should be complied with during the handling and carriage of bulk materials.
- That a copy of the Medical First Aid Guide for Use in Accidents Involving Dangerous Goods should be on board.
- That cargoes which may liquefy should not be carried with a moisture content above that of the transportable moisture limit.
- That such cargoes should be trimmed reasonably level, regardless of the angle of repose stated.
- That specially fined or constructed cargo ships may carry materials with a moisture content above the transportable moisture limit if approved by their Administrations.
- That some materials transported in bulk present hazards because of their chemical properties.
- That the IMSBC Code categorises cargoes into three groups - A, B and C.
- That the IMDG code should also be consulted for additional requirements regarding the stowage and segregation of packaged dangerous goods.
- That particular care should be taken with the segregation of toxic substances and foodstuffs.
- Use the IMSBC code to extract all necessary information for the safe carriage in bulk of a stated cargo, describes how it should be loaded and lists any special precautions or requirements to be observed during loading, carriage and discharge.





**9. Responsibilities under the Relevant Requirements of the International Convention for the Safety of Life at Sea**

2hrs (T) + 0hrs (P) + 0hrs (E).

**Overview of**

- Recent (last five years) amendments to SOLAS.

**Knowledge of;**

- The rights of the master of a ship in distress to requisition one or more ships which have answered his call for assistance.
- When the master of a ship is released from the obligation to render assistance.
- The requirements for the carriage of navigational equipment.
- The procedure for the testing of the ship's steering gear before departure.
- The requirements for the display of operating instructions and change-over procedures for remote steering gear control and steering gear power units.
- The requirements for emergency steering drills.

**Familiarity with;**

- The obligations of the master concerning the sending of danger messages relating to dangerous ice, a dangerous derelict, other dangers to navigation, tropical storms, sub-freezing air temperature with gale force winds causing severe ice accretion or winds of force 10 or above for which no storm warning has been received.
- The information required in danger messages.
- That when ice is reported near his course, the master of every ship at night is bound to proceed at a moderate speed or to alter his course so as to go well clear of the danger zone.
- That the use of an international distress signal, except for the purpose of indicating that a ship or aircraft is in distress, and the use of any signal which may be confused with an international distress signal are prohibited.
- The obligations of the master of a ship at sea on receiving a signal from any source that a ship or aircraft or a survival craft thereof is in distress.
- That all equipment fitted in compliance with Reg V/12 must be of a type approved by the Administration.
- That all ships should be sufficiently and efficiently manned.
- That manning is subject to Port State Control inspection.
- The contents of the minimum safe manning document referred to in Assembly resolution A481 (XII), Principles of Safe Manning.
- That in areas where navigation demands special caution, ships should have more than one steering gear power unit in operation when such units are capable of simultaneous operation
- The entries which should be made in the log-book regarding the checks and tests of the steering gear and the holding of emergency drills .
- That all ships should carry adequate and up-to date charts, sailing directions, lists of lights, notices to mariners, tide tables and other nautical publications necessary for the voyage.
- Which ships should carry the International Code of Signals.





**10. Responsibilities under the international convention for the prevention of pollution from ships, 1973, and the protocol of 1978 relating thereto (MARPOL 73/78) 2hrs (T) + 0hrs (P) + 0hrs (E).**

**Overview of**

- Recent (last five years) amendments to MARPOL 73/78.

**i. Annex VI — (Regulations for the Prevention of Air Pollution from Ships) of the MARPOL Convention.**

**Familiarity with;**

- That MARPOL 73/78 Annex VI Regulations for the prevention of Air Pollution from ships entered into force on 19 May 2005
  - That MARPOL Annex VI sets limits on sulphur oxide and nitrogen oxide emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances
  - That Annex VI emission control requirements are in accordance with the 1987 Montreal Protocol (a UN international environmental treaty), as amended in London in 1990
  - That MARPOL ANNEX VI applies to all ships, fixed and floating drilling rigs and other platforms, but the certification requirements are depending on size of the vessel and when it is constructed
  - That Regulation 16 sets out requirements for shipboard incineration and as per 16(4) bans the incineration of:
    - MARPOL Annex I, II and III cargo residues and related contaminated packing materials;
    - polychlorinated biphenyls (PCBs);
    - garbage, as defined in MARPOL Annex V, containing more than traces of heavy metals; and
    - refined petroleum products containing halogen compounds
  - That under regulation 16(5) incineration of sewage sludge and sludge oil generated during the normal operation of a ship may take place in the main or auxiliary power plant or boilers (as well as in an incinerator), but in those cases, must not take place inside ports, harbours and estuaries
  - That Regulation 16(6) prohibits the shipboard incineration of polyvinyl chlorides (PVCs), except in incinerators for which IMO Type Approval Certificates have been issued
  - That under regulation 16(7) all ships with incinerators subject to regulation 16 must possess a manufacturer's operating manual which must specify how to operate the incinerator within the limits described in paragraph 2 of appendix IV to Annex VI
  - That under regulation 16(8) personnel responsible for operation of any incinerator must be trained and capable of implementing the guidance in the manufacturer's operating manual
  - That Regulation 3 provides that the regulations of Annex VI will not apply to any emission necessary for the purpose of securing the safety of a ship or saving life at sea, or any emission resulting from damage to a ship or its equipment, subject to certain conditions
  - That Regulation 15 provides that in ports or terminals in Party States any regulation of emissions of Volatile Organic Compounds (VOCs) from tankers must be in accordance with Annex VI
  - That as per Regulation 15 a tanker carrying crude oil is required to have a "VOC Management Plan" approved by the Administration onboard
  - That ships of 400 gross tons and above engaged in international voyages involving countries that have ratified the conventions, or ships flying the flag of those countries, are required to have an International Air Pollution Prevention Certificate (IAPP Certificate)
  - That the IAPP certificate will be issued following an initial survey carried out by the Flag Administration or by a recognised organization on behalf of the Flag Administration, confirming compliance with MARPOL Annex VI. For ships with the flag of an Administration that have not yet ratified Annex VI, a Certificate of Compliance with Annex VI may be issued
- That Annex VI also requires diesel engines with a power output of more than 130 kW which is installed on a ship constructed on or after 1 January 2000 or with a power output of more than 130





kW which undergoes a major conversion on or after 1 January 2000 or with a power output of more than 5000 kW and a per cylinder displacement at or above 90 litres which is installed on a ship constructed on or after 1 January 1990 but prior to 1 January 2000, to carry individual certificates with regard to NOx emissions, named Engine International Air Pollution Prevention (EIAPP) Certificates

- That Annex VI requires that every ship of 400 gross tonnage or above and every fixed and floating drilling rig and other platforms shall be subject to a schedule of surveys that occur throughout the life of a vessel

## ii. The schedule of surveys:

### Familiarity with;

- Initial survey: This survey occurs before the ship is put into service or before a vessel certificate is issued for the first time. This survey ensures that the equipment, systems, fitting, arrangements and material used onboard fully comply with the requirements of Annex VI. The vessel's International Air Pollution Prevention certificate (IAPP) will be issued to the vessel by an organization authorized to act on behalf of the state, after this survey.
- Periodic surveys: These surveys occur at least every five years after the initial survey. These surveys confirm that nothing has been done to the ship's equipment that would take it out of compliance. The vessel's IAPP certificate will be re-issued by an organization authorized to act on behalf of the state, after this survey.
- Intermediate surveys: These surveys occur at least once during the period between issuance of an IAPP and the periodic surveys. They also confirm that all of the ship's equipment remains in compliance.
- That Chapter III of Annex VI (regulations 12 to 19) contains requirements for control of emissions from ships, but the following regulations directly impact Vessel operation:
  - Regulation 12 – Ozone Depleting Substances
  - Regulation 13 – NOx emissions
  - Regulation 14 – Sulphur Oxide emissions
  - Regulation 15 – VOC emissions
  - Regulation 16 – Shipboard Incinerators
  - Regulation 18 – Fuel Oil Quality control
- That Regulation 12(1) prohibits deliberate emissions of ozone-depleting substances, except where necessary for the purpose of securing the safety of a ship or saving life, as provided in regulation 3.
- That Regulation 12(2) prohibits, on all ships, new installations containing ozone-depleting substances, except that new installations containing hydrochlorofluorocarbons (HCFCs) are permitted until 1 January 2020.
- That all the ships subject to the requirements of Annex VI, are required to maintain a list of equipment containing ozone depleting substances and in case a ship which has rechargeable systems containing ozone depleting substances, an Ozone depleting Substances Record Book is to be maintained on board.
- That Regulation 13 sets NOx emission limits for diesel engines with a power output of more than 130kW installed on ships built on or after 1 January 2000, and diesel engines of similar power undergoing a major conversion on or after 1 January 2000.
- That Regulation 13 does not apply to emergency diesel engines, engines installed in lifeboats and any device or equipment intended to be used solely in case of emergency, or engines installed on ships solely engaged in voyages within waters subject to the sovereignty or jurisdiction of the flag State, provided that such engines are subject to an alternative NOx control measure established by the Administration.

That Regulation 13 further contains a 3-Tier approach;





- Tier I (current limits)
  - For diesel engines installed on ships constructed from 1 January 2000 to 1 January 2011
  - Tier II
  - For diesel engines installed on ships constructed on or after 1 January 2011
  - Tier III
  - Ships constructed on or after 1 January 2016
- That Engine surveys are described in Chapter 2 of the NOx Technical Code, a supporting document to Annex VI.

### iii. Engine surveys:

#### Familiarity with;

- Pre-certification survey: This survey occurs before an engine is installed onboard a vessel, to ensure the engine meets the NOx limits. The Engine International Air Pollution Prevention certificate (EIAPP) is issued after this survey for each applicable engine, engine family, or engine group.
- Initial certification survey: This survey occurs after the engine is installed onboard the ship, but before the ship is placed into service. It ensures that the engine meets the NOx limits as installed. If an engine has an EIAPP, the initial certification survey will primarily ensure that any modifications to the engine's settings are within the allowable adjustment limits specified in the EIAPP.
- Periodic and intermediate surveys: These surveys occur as part of the ship's surveys described above. They ensure that the engine continues to comply fully with the NOx limits.
- Modification survey: This survey occurs when an engine overhaul meets the criteria for a major conversion. It ensures that the modified engine complies with the NOx limits.
- That there are three documents that are essential for completing the engine and vessel surveys. These are the EIAPP or Statement of Compliance, the Technical File, and the Record Book of Engine Parameters.
- That Regulation 14 provides for adoption of "SOx Emission Control Areas"- "SECA" where the adoption of special mandatory measures for SOx emissions from ships is required to prevent, reduce and control air pollution from SOx and its attendant adverse impacts on land and sea areas with more stringent control on sulphur emissions.

### iv. Emission Control Areas (ECA):

#### Familiarity with;

- The Baltic Sea area as defined in regulation 1.11.2 of Annex I, the North Sea as defined in regulation 5(1)(f) of Annex V.
- That in these areas the sulphur content of fuel oil used on ships must not exceed 1.5% m/m. Alternatively, ships in these areas must fit an exhaust gas cleaning system or use any other technological method to limit SOx emissions.
- That Regulation 15 provides that in ports or terminals in Party States any regulation of emissions of Volatile Organic Compounds (VOCs) from tankers must be in accordance with Annex VI.
- That Regulation 16 sets out requirements for shipboard incineration and as per 16(4) bans the incineration of:
  - MARPOL Annex I, II and III cargo residues and related contaminated packing materials;
  - polychlorinated biphenyls (PCBs);
  - garbage, as defined in MARPOL Annex V, containing more than traces of heavy metals; and
  - refined petroleum products containing halogen compounds





- That under regulation 16(5) incineration of sewage sludge and sludge oil generated during the normal operation of a ship may take place in the main or auxiliary power plant or boilers (as well as in an incinerator), but in those cases, must not take place inside ports, harbours and estuaries.
- That Regulation 16(6) prohibits the shipboard incineration of polyvinyl chlorides (PVCs), except in incinerators for which IMO Type Approval Certificates have been issued.
- That under regulation 16(7) all ships with incinerators subject to regulation 16 must possess a manufacturer's operating manual which must specify how to operate the incinerator within the limits described in paragraph 2 of appendix IV to Annex VI
- That under regulation 16(8) personnel responsible for operation of any incinerator must be trained and capable of implementing the guidance in the manufacturer's operating manual.
- That as per Regulation 15 a tanker carrying crude oil is required to have a "VOC Management Plan" approved by the Administration onboard.
- That Regulation 3 provides that the regulations of Annex VI will not apply to any emission necessary for the purpose of securing the safety of a ship or saving life at sea, or any emission resulting from damage to a ship or its equipment, subject to certain conditions.

**11. International Convention on Standards of Training, Certification and Watch keeping for Seafarers, 1995 (STCW) including 2010 manila amendment.**

2hrs (T) + 0hrs (P) + 0hrs (E).

**Familiarity with;**

- The general obligations under the Convention.
- Followings, for the purpose of the Convention:
  - Certificate of Competency
  - Certificate of Proficiency
  - certificated
  - seagoing ship
  - Radio Regulations
- The application of the Convention.
- The issue of certificates and their endorsement by the issuing Administration.
- The conditions under which dispensations may be granted.
- That ships, when in a port of a party to the Convention, are subject to control to verify that all seafarers serving on board who are required to be certificated are so certificated or hold a valid dispensation.
- That a ship which extends its voyage beyond what is defined as a near-coastal voyage by a Party must fulfill the requirements of the Convention without the relaxation allowed for near-coastal voyages.
- The control which may be exercised by a duly authorized control officer.
- The circumstances in which the control officer should supply written information to the master regarding deficiencies and the grounds under which the ship may be detained.
- That the regulations contain:
  - mandatory minimum requirements for the certification of masters, officers, radiotelephone operators, able seafarers deck or engine and ratings forming part of a navigational watch or an engineering watch
  - mandatory minimum requirements for the training and qualifications of masters, officers and ratings of oil, chemical and gas tankers
  - mandatory minimum requirements to ensure the continued proficiency and updating of masters and deck, engineer, and radio officers and ratings
  - basic principles to be observed in keeping navigational and engineering watches
  - mandatory minimum requirements for the issue of a Certificate of Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats







## 12. Maritime Labour Convention (MLC 2006)

1hrs (T) + 0hrs (P) + 0hrs (E).

### Knowledge of;

- That the Maritime Labour Convention, 2006 is an important new international labour Convention that was adopted by the International Labour Conference of the International Labour Organization (ILO), under article 19 of its Constitution at a maritime session in February 2006 in Geneva, Switzerland.
- That it sets out seafarers' rights to decent conditions of work and helps to create conditions of fair competition for shipowners.
- That it is intended to be globally applicable, easily understandable, readily updatable and uniformly enforced.
- That the MLC, 2006, complementing other major international conventions, reflects international agreement on the minimum requirements for working and living conditions for seafarers.
- That the Maritime Labour Convention, 2006 has two primary purposes:
  - to bring the system of protection contained in existing labour standards closer to the workers concerned, in a form consistent with the rapidly developing, globalized sector (ensuring "decent work");
  - to improve the applicability of the system so that shipowners and governments interested in providing decent conditions of work do not have to bear an unequal burden in ensuring protection ("level playing field" fair competition)
- That the Maritime Labour Convention, 2006 has been designed to become a global legal instrument that, once it enters into force, will be the "fourth pillar" of the international regulatory regime for quality shipping, complementing the key Conventions of the International Maritime Organization (IMO) such as the International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS), the International Convention on Standards of Training, Certification and Watchkeeping, 1978, as amended (STCW) and the International Convention for the Prevention of Pollution from Ships, 73/78 (MARPOL).
- That the Convention "consolidates" the existing international law on all these matters.
- That the existing ILO maritime labour Conventions will be gradually phased out as ILO Member States that have ratified those Conventions ratify the new Convention, but there will be a transitional period when some parallel Conventions will be in force.
- That countries that ratify the Maritime Labour Convention, 2006 will no longer be bound by the existing Conventions when the new Convention comes into force for them.
- That countries that do not ratify the new Convention will remain bound by the existing Conventions they have ratified, but those Conventions will be closed to further ratification.
- That the Convention is organized into three main parts: the Articles coming first set out the broad principles and obligations which is followed by the more detailed Regulations and Code (with two parts: Parts A and B) provisions.
- That it occasionally contains new subjects in comparison to the existing ILO Maritime labour conventions, particularly in the area of occupational safety and health to meet current health concerns, such as the effects of noise and vibration on workers or other workplace risks.
- That the standards in the new Convention are not lower than existing maritime labour standards as the aim is to maintain the standards in the current maritime labour Conventions at their present level, while leaving each country greater discretion in the formulation of their national laws establishing that level of protection.
- That the advantages for ships of ratifying countries that provide decent conditions of work for their seafarers will have protection against unfair competition from substandard ships and will benefit from a system of certification, avoiding or reducing the likelihood of lengthy delays related to inspections in foreign ports.





- That the Maritime Labour Convention, 2006 aims to establish a continuous “compliance awareness” at every stage, from the national systems of protection up to the international system and it will improve compliance and enforcement;
  - Starting with the individual seafarers, who – under the Convention – have to be properly informed of their rights and of the remedies available in case of alleged non-compliance with the requirements of the Convention and whose right to make complaints, both on board ship and ashore, is recognized in the Convention.
  - It continues with the shipowners. Those that own or operate ships of 500 gross tonnage and above, engaged in international voyages or voyages between foreign ports, are required to develop and carry out plans for ensuring that the applicable national laws, regulations or other measures to implement the Convention are actually being complied with.
  - The masters of these ships are then responsible for carrying out the shipowners’ stated plans, and for keeping proper records to evidence implementation of the requirements of the Convention.
  - As part of its updated responsibilities for the labour inspections for ships above 500 gross tonnage that are engaged in international voyages or voyages between foreign ports, the flag State (or recognized organization on its behalf) will review the shipowners’ plans and verify and certify that they are actually in place and being implemented.
  - Ships will then be required to carry a maritime labour certificate and a declaration of maritime labour compliance on board.
  - Flag States will also be expected to ensure that national laws and regulations implementing the Convention’s standards are respected on smaller ships that are not covered by the certification system.
  - Flag States will carry out periodic quality assessments of the effectiveness of their national systems of compliance, and their reports to the ILO under article 22 of the Constitution will need to provide information on their inspection and certification systems, including on their methods of quality assessment.
  - This general inspection system in the flag State (which is founded on ILO Convention No. 178) is complemented by procedures to be followed in countries that are also or even primarily the source of the world’s supply of seafarers, which will similarly be reporting under article 22 of the ILO Constitution.
  - The system is further reinforced by voluntary measures for inspections in foreign ports (port State control)
- That the Maritime Labour Certificate would be issued by the flag State to a ship that flies its flag, once the State (or a recognized organization that has been authorized to carry out the inspections), has verified that the labour conditions on the ship comply with national laws and regulations implementing the Convention.
- That the declaration of maritime labour compliance is attached to the certificate and summarizes the national laws or regulations implementing an agreed-upon list of 14 areas of the maritime standards and setting out the shipowner’s or operator’s plan for ensuring that the national requirements implementing the Convention will be maintained on the ship between inspections.

**Familiarity with;**

- That it sometimes called the consolidated Maritime Labour Convention, 2006 as it contains a comprehensive set of global standards, based on those that are already found in 68 maritime labour instruments (Conventions and Recommendations), adopted by the ILO since 1920.
- That the new Convention brings almost all of the existing maritime labour instruments together in a single new Convention that uses a new format with some updating, where necessary, to reflect modern conditions and language.





- That the MLC, 2006 applies to all ships engaged in commercial activities (except fishing vessels, ships of traditional build and warships or naval auxiliaries).
- That ships of 500 GT or over are required to be certified: they must carry a Maritime Labour Certificate as well as a Declaration of Maritime Labour Compliance.
- That ships below 500 GT are subject to inspection at intervals not exceeding three years.
- That the Regulations and the Standards (Part A) and Guidelines (Part B) in the Code are integrated and organized into general areas of concern under five Titles:
  - Title 1: Minimum requirements for seafarers to work on a ship: minimum age, medical certificates, training and qualification, recruitment and placement.
  - Title 2: Conditions of employment: Seafarers Employment Agreements, Wages, Hours of Work and Hours of Rest, Entitlement to Leave, Repatriation, Seafarer compensation for the ship's Loss or Foundering, Manning Levels, Career and Skill Development and Opportunities for Seafarers' Employment
  - Title 3: Accommodation, recreational facilities, food and catering
  - Title 4: Health protection, medical care, welfare and social security protection: Medical Care on-board ship and Ashore, Ship-owners' Liability, Health & Safety Protection and Accident Prevention, Access to Shore-based Welfare Facilities, Social Security
  - Title 5: Compliance and enforcement: Flag State Responsibilities: General Principles, Authorization of Organizations, Maritime Labour Certificate and Declaration of Maritime Labour Compliance, Inspection and Enforcement, On-board Complaint Procedures, Marine Casualties
  - Port State Responsibilities: Inspections in Port, Detailed Inspection, Detentions, On-shore Seafarer Complaint Handling Procedures
  - Labour-supplying Responsibilities: Recruitment and Placement services, Social security provisions These five Titles essentially cover the same subject matter as the existing 68 maritime labour instruments, updating them where necessary
- That the appendices to the Convention contain key model documents: a maritime labour certificate and a declaration of maritime labour compliance.
- That the certificate would be valid for five years subject to periodic inspections by the flag State.
- That the lists of the 14 areas that must be certified by the flag State and that may be inspected, if an inspection occurs, in a foreign port are also set out in the Appendices to the Convention.

**13. Stowaways**      1hrs (T) + 0hrs (P) + 0hrs (E).

**Knowledge of;**

- That as per IMO Guidelines -a "stowaway" is defined as "a person who is secreted on a ship, or in a cargo which is subsequently loaded on the ship, without the consent of the shipowner or the master or any other responsible person, and who is detected on board after the ship has departed from a port and is reported as a stowaway by the master to the appropriate authorities".
- That an international convention relating to stowaways was adopted in Brussels in 1957, but it has not yet entered into force.
- That according to the P&I clubs (who deal with many stowaway incidents), certain parts of the world are high-risk areas for stowaways.
- That since the P&I clubs invariably have the latest intelligence on stowaway risks, masters should endeavour to obtain their latest club bulletins and information.
- That at any port in a high-risk area, great care should be taken to ensure that stowaways do not board, and the following safeguards should be observed:
  - A watch should be kept on the accommodation ladder or gangway.
  - Stevedores should only be allowed to work in restricted areas and a watch should be kept on them.





- Open spaces should be closed as far as possible.
- A search of the ship should be carried out before the ship sails.
- All open-top containers on the quay should be checked. All containers on the quay should be stacked door-to-door, if possible.
- IMO has introduced various guidelines on stowaway matters, the latest being in Resolution A.871(20), adopted on 27 November 1997, and its Annex, "Guidelines on the Allocation of Responsibilities to seek the Successful Resolution of Stowaway Cases".
- That the guidelines in the resolution state that the resolution of stowaway cases is difficult because of different national legislation in the various countries involved, nevertheless, some basic principles can be applied generally.
- That as per the IMO guideline there are nine basic principles which can be applied generally with respect to stowaway cases, the second of these is that stowaway/asylum-seekers should be treated in compliance with international protection principles as set out in international instruments (including the UN Convention relating to the Status of Refugees of 28 July 1951 and the UN Protocol relating to the Status of Refugees of 31 January 1967) and relevant national legislation, the ninth is that stowaway incidents should be dealt with humanely by all parties involved. Due consideration should always be given to the operational safety of the ship and to the well-being of the stowaway.
- That Paragraph 5.1 of the IMO Guidelines lists responsibilities of the master in stowaway cases, which are as follows:
  - to make every effort to determine immediately the port of embarkation of the stowaway;
  - to make every effort to establish the identity, including the nationality/citizenship of the stowaway;
  - to prepare a statement containing all information relevant to the stowaway, in accordance with information specified in the standard document annexed to these Guidelines, for presentation to the appropriate authorities;
  - to notify the existence of a stowaway and any relevant details to his shipowner and appropriate authorities at the port of embarkation, the next port of call and the flag State;
  - not to depart from his planned voyage to seek the disembarkation of a stowaway to any country unless repatriation has been arranged with sufficient documentation and permission for disembarkation, or unless there are extenuating security or compassionate reasons;
  - to ensure that the stowaway is presented to appropriate authorities at the next port of call in accordance with their requirements;
  - to take appropriate measures to ensure the security, general health, welfare and safety of the stowaway until disembarkation.
- The procedure to be adopted, in general, on the discovery at sea of stowaways, which is:
  - The owner or manager, as appropriate, should be contacted. The owner will normally contact the P&I club's managers to decide on a course of action. The P&I club's correspondent serving the next port of call will normally be contacted by the club managers. The correspondent should be able to advise what information will be required by port State and other officials.
  - An entry should be made in the Official Log Book recording the discovery of the stowaways.
  - The compartment or area in which the stowaways were found should be searched. Any documents or articles of clothing, etc. may give an indication of their place of origin. (Most countries only allow a stowaway to be landed if he has the necessary travel documents to return to his own country. Stowaways rarely have any documentation, however, and some will try to destroy all clues as to their identity.)
  - The clothing of the stowaways should be searched for indications as to their origin.
  - The agent at the next port of call should be contacted and instructed to advise the appropriate authorities of the port State of the presence of stowaways on board.
  - Each stowaway found should be individually interviewed in order to establish the following details:
    - name of stowaway;





- stowaway's date and place of birth;
  - nationality of stowaway;
  - name, date and place of birth of either or both of the stowaway's parents;
  - postal and residential address of the stowaway and either parent;
  - stowaway's passport or seaman's book number, together with date and place of issue; and
  - stowaway's next of kin, if different from above.
- The Stowaway Details Form contained in MGN 70 should be completed. The completed form should be copied by fax or e-mail to the agent and the P&I club correspondent at the next port of call.
  - Photographs of each stowaway should be taken and, where digital camera facilities are available, transmitted to the P&I club correspondent; these may enable travel documents to be obtained more quickly on the ship's arrival.
  - All stowaways should be housed in some part of the crew accommodation which can be locked when necessary.
  - The stowaways should not be locked in their accommodation when the vessel is at sea and well clear of land unless they are considered a threat to the safety of the ship or personnel on board. Consideration should be given, however, to the possibility of unguarded stowaways launching a liferaft or boat in an attempt to reach land.
  - The stowaways should be locked securely in their accommodation when the vessel approaches any port or nears any land. (Consideration should be given to the possibility of the stowaways' escape through open scuttles.)
  - The stowaways should be provided with adequate food, water, sanitary facilities, etc.
  - The stowaways should be treated in a humane manner.
  - The stowaways should not be made to work for their keep.
  - The stowaways should not be signed on the Crew Agreement and should not be entered on any List of Crew. A "Stowaway List" should be made recording any known particulars, ready for production to port officials.
  - Evidence of costs relating to the stowaway case, such as fuel, insurance, wages, stores, provisions and port charges, should be gathered to support the owner's claim on his P&I policy. (The owner's costs associated with the landing of stowaways are usually recoverable from his P&I club.)
  - Full details of all events and particulars relating to the stowaway incident should be recorded in the Official Log Book, if necessary in an annexed document. (This may be used as part of any report required by owners, the club, etc.)
- That arriving with stowaways on board can have complications.
  - That the IMO Guidelines on the Allocation of Responsibilities to seek the Successful Resolution of Stowaway Cases state (in paragraph 3) that the resolution of stowaway cases is difficult because of different national legislation in each of the potentially several countries involved: the country of embarkation, the country of disembarkation, the flag State of the vessel, the country of apparent, claimed or actual nationality/citizenship of the stowaway, and countries of transit during repatriation.
  - That the IMO Guidelines on the Allocation of Responsibilities to seek the Successful Resolution of Stowaway Cases contain (in paragraph 4) certain basic principles which can be applied generally, the first of these is that there is recognition that stowaways arriving at or entering a country without the required documents are, in general, illegal entrants. Decisions on dealing with such situations are the prerogative of the countries where such arrival or entry occurs, the third is that the shipowner and his representatives on the spot, the master, as well as the port authorities and national Administrations, should co-operate as far as possible in dealing with stowaway cases.
- That in every case the agent should be notified of the presence of stowaways in advance of arrival .





- That under the U.S. Refugee Act 1980 a stowaway who arrives in the USA can request political asylum.
- That the Immigration and Naturalization Service (INS) has taken the position that shipowners are required to provide 24-hour armed guards during the entire asylum process which can take months.
- That there have been cases where the owner has incurred costs in excess of \$1m for such detention.
- That many countries impose very heavy penalties (in some cases of over US\$200,000) on masters who fail to ensure that stowaways are kept securely on board in port.

**14. Ballast Water Convention 2004**      1hrs (T) + 0hrs (P) + 0hrs (E).

**Knowledge of;**

- The application of this convention.
- The conditions where the application of this convention may be exempted.
- The management and control requirement based on Section B Regulation B1 to B6.
- The Annex – Section A, B, C, D and E briefly.
- The standards that need to be observed in ballast water exchange.
- That in accordance with SOLAS Chapter V, Regulation 28 – Records of navigational activities and daily reporting, the commencement and termination of the operation should be recorded.
- That the navigational records generated during ballast water exchange may be reviewed during ISM Audits and port state control inspections.

**Understanding of;**

- The following:
  - ballast water
  - ballast water management
  - sediments

**Familiarity with;**

- Under Regulation B-4 Ballast Water Exchange, all ships using ballast water exchange should:
  - Whenever possible, conduct ballast water exchange at least 200 nautical miles from the nearest land and in water at least 200 metres in depth, taking into account Guidelines developed by IMO;
  - In cases where the ship is unable to conduct ballast water exchange as above, this should be as far from the nearest land as possible, and in all cases at least 50 nautical miles from the nearest land and in water at least 200 metres in depth
- As per Annex – Section B Management and Control Requirements for Ships:
  - Ships are required to have on board and implement a Ballast Water Management Plan approved by the Administration (Regulation B-1). The Ballast Water Management Plan is specific to each ship and includes a detailed description of the actions to be taken to implement the Ballast Water Management requirements and supplemental Ballast Water Management practices.
- That a new paragraph, 4, has been added with effect from July 1, 2010 to SOLAS Chapter V, Regulation 22 – Navigation bridge visibility. Some changes are operational and others introduce new requirements applicable to navigation records.
- That as a consequence of this amendment, any increase in blind sectors or reduction in horizontal fields of vision resulting from ballast water exchange operations is to be taken into account by the Master before determining that it is safe to proceed with the exchange.





- That as an additional measure, to compensate for possible increased blind sectors or reduced horizontal fields of vision, the Master must ensure that a proper lookout is maintained at all times during the exchange. Ballast water exchange must be conducted in accordance with the ship's ballast water management plan, taking into account the recommendations adopted by the IMO.

**15. International Convention on the Control of Harmful Anti-fouling Systems on Ships, Statical Stability Code 2008, Wreck removal – Nairobi convention, Recycling convention, Carriage of goods by sea – Rotterdam rules**

1hrs (T) + 0hrs (P) + 0hrs (E).

**Familiarity with;**

- Anti-fouling system.
- The control of waste material in Annex 1 of the Convention.
- Statical Stability Code 2008, wind and weather heeling criteria, synchronous and parametric rolling and precaution.
- Wreck removal – Nairobi convention,
- Recycling convention,
- Carriage of goods by sea – Rotterdam rules

**16. Port and Flag State Control**

1hrs (T) + 0hrs (P) + 0hrs (E).

**Knowledge of;**

- That "Port State control" is the inspection of foreign ships present in a nation's ports for the purpose of verifying that the condition of the ships and their equipment comply with the provisions of international conventions and codes, and that the ships are manned and operated in compliance with those provisions.
- That the primary responsibility for maintaining ships' standards rests with their flag States, as well as their owners and masters. However, many flag States do not, for various reasons, fulfill their obligations under international maritime conventions, and port State control provides a useful "safety net" to catch substandard ships.

**Familiarity with;**

- that a "Port State Control regime", where set up under a "memorandum of understanding" ("MOU") or similar accord between neighbouring port States, is a system of harmonised inspection procedures designed to target substandard ships with the main objective being their eventual elimination from the region covered by the MOU's participating States.
- That there are eight international PSC agreements currently in force world-wide.
- How to ascertain which port state agreement a particular port state might be party to and any areas of particular focus that may currently be in place.
- That the US Coast Guard operates a national Port State Control Initiative.
- That the list of certificates and documents which are checked during the inspection are:
  - International Tonnage Certificate (1969);
  - Passenger Ship Safety Certificate;
  - Cargo Ship Safety Construction Certificate;
  - Cargo Ship Safety Equipment Certificate;
  - Cargo Ship Safety Radio Certificate;
  - Exemption Certificate;
  - Cargo Ship Safety Certificate;
  - Document of Compliance (SOLAS 74, regulation II-2/54);





- Dangerous Goods Special List or Manifest, or Detailed Stowage Plan;
  - International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk, or the Certificate of Fitness for the Carriage of Liquefied Gases in Bulk, whichever is appropriate;
  - International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk, or the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk, whichever is appropriate;
  - International Oil Pollution Prevention Certificate;
  - International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk;
  - International Load Line Certificate (1966);
  - International Load Line Exemption Certificate;
  - Oil Record Book, parts I and II;
  - Shipboard Oil Pollution Emergency Plan;
  - Cargo Record Book;
  - Minimum Safe Manning Document;
  - Certificates of Competency;
  - Medical certificates (see ILO Convention No. 73);
  - Stability information;
  - Safety Management Certificate and copy of Document of Compliance (SOLAS chapter IX);
  - Certificates as to the ship's hull strength and machinery installations issued by the classification society in question (only to be required if the ship maintains its class with a classification society);
  - Survey Report Files (in case of bulk carriers or oil tankers in accordance with resolution A.744(18));
  - For ro-ro passenger ships, information on the A/A max ratio;
  - Document of authorization for the carriage of grain;
  - Special Purpose Ship Safety Certificate;
  - High-Speed Craft Safety Certificate and Permit to Operate High-Speed Craft;
  - Mobile Offshore Drilling Unit Safety Certificate;
  - For oil tankers, the record of oil discharge monitoring and control system for the last ballast voyage;
  - The muster list, fire control plan and damage control plan;
  - Ship's log-book with respect to the records of tests and drills and the log for records of inspection and maintenance of life-saving appliances and arrangements;
  - Procedures and Arrangements Manual (chemical tankers);
  - Cargo Securing Manual;
  - Certificate of Registry or other document of nationality;
  - Garbage Management Plan;
  - Garbage Record Book;
  - Bulk carrier booklet (SOLAS chapter VI regulation 7); and
  - Reports of previous port State control inspections
- That in addition to the general control of above listed certificate and documents, examinations / inspections of the following are generally given priority by Port State Control Officer (PSCO):
- Nautical publication (SOLAS 74 R V/20)
  - Navigational equipment (SOLAS 74 R V/12 and 19)
  - Emergency starting and running tests (SOLAS 74 R II-2 - 4.3)
  - Lifesaving equipment. Rafts FF (SOLAS 74 R III/20, 23, 26 and 29)
  - Emergency Generator (start/stop only) (SOLAS 74 R II-1/42&43)Hull corrosion and damages (Load Lines) (SOLAS 74 R I/11)
  - Main engine & aux. engines (SOLAS 74 R II/26, 27 &28)
  - Oily water separator 15 ppm alarm (MARPOL Annex I/16(1))
  - Oil discharge monitor (ODM) (MARPOL Annex I/16)







- Charts corrected and proper scale (SOLAS 74 R V/20)
- Fire safety Control plan (SOLAS 74 R II-2/20)
- Ventilation inlets/outlets (SOLAS 74 R II-2/16.9 & 48)
- Emergency training and drills (Log book rec. SOLAS 74 R III/18)
- Emergency lighting/batteries (SOLAS 74 R II/42 & 43)
- Deck- and hatches corrosion and damages (LL 1966)
- Steering gear – incl. auxiliary & emergency (Bridge inspection only – SOLAS 74 R V/19)
- Cleanliness in engine room (SOLAS 74 R II-1/26 and ILO 134)
- Cleanliness in accommodation (ILO 92 & 133)
- That the Port State Control inspections may be conducted on the following basis:
  - initiative of the Port State Administration;
  - the request of, or on the basis of, information regarding a ship provided by another Administration
  - information regarding a ship provided by a member of the crew, a professional body, an association, a trade union or any other individual with an interest in the safety of the ship, its crew and passengers, or the protection of the marine environment.
- That the PSC inspections may be on random, targeted or periodical basis. The following types of PSC inspections are used in PSC:
  - Initial Inspection (random)
  - More detailed inspection (escalated)
  - Expanded inspection (targeted/periodical)
- That the definition of Inspection is: "A visit on board a ship to check both the validity of the relevant certificates and other documents, and the overall condition of the ship, its equipment, and its crew".
- That the certificates and documents listed above should therefore be readily available and presented to the PSCO at his request during the PSC inspection.
- That the definition of more detailed inspection is: "An inspection conducted when there are clear grounds for believing that the condition of the ship, its equipment, or its crew does not correspond substantially with the particulars of the certificates".
- That the definition of Clear grounds is: "Evidence that the ship, its equipment, or its crew does not correspond substantially with the requirements of the relevant conventions or that the master or crew members are not familiar with essential shipboard procedures relating to the safety of ships or the prevention of pollution".
- That "Clear grounds" to conduct a more detailed inspection include:
  - the absence of principal equipment or arrangements required by the conventions;
  - evidence from a review of the ship's certificates that a certificate or certificates are clearly invalid;
  - evidence that documentation required by the conventions are not on board, incomplete, are not maintained or are falsely maintained;
  - evidence from the PSCO's general impressions and observations that serious hull or structural deterioration or deficiencies exist that may place at risk the structural, watertight or weathertight integrity of the ship;
  - evidence from the PSCO's general impressions or observations that serious deficiencies exist in the safety, pollution prevention or navigational equipment;
  - information or evidence that the master or crew is not familiar with essential shipboard operations relating to the safety of ships or the prevention of pollution, or that such operations have not been carried out;
  - indications that key crew members may not be able to communicate with each other or with other persons on board;
  - the emission of false distress alerts not followed by proper cancellation procedures;
  - receipt of a report or complaint containing information that a ship appears to be substandard.





- That the PSCO during a more detailed inspection generally take the following into account:
  - structure;
  - machinery spaces;
  - conditions of assignment of load lines;
  - life-saving appliances;
  - fire safety;
  - regulations for preventing collisions at sea;
  - Cargo Ship Safety Construction Certificate;
  - Cargo Ship Safety Radio Certificates;
  - equipment in excess of convention or flag State requirements;
  - guidelines for discharge requirements under Annexes I and III of MARPOL 73/78 which includes:
    - inspection of crude oil washing (COW) operations;
    - inspection of unloading, stripping and prewash operations;
    - guidelines for control of operational requirements – which include:
      - muster list;
      - communication;
      - fire drills;
      - abandon ship drills;
      - damage control plan and Shipboard Oil Pollution Emergency Plan;
      - fire control plan;
      - bridge operation;
      - cargo operation;
      - operation of the machinery;
      - manuals, instructions etc.;
      - oil and oily mixtures from machinery spaces;
      - loading, unloading and cleaning procedures for cargo spaces of tankers;
      - dangerous goods and harmful substances in packaged form;
      - garbage;
  - minimum manning standards and certification;
  - STCW 78;
  - ISM; and
  - ISPS Code.
- That expanded inspection is an inspection conducted according to non-mandatory guidelines only once during 12 months period for certain types of ships and certain categories of age and size.
- That Oil tankers, bulk carriers, gas and chemical carriers and passenger ships are subject to expanded inspections once during a period of 12 months.
- The IMO RESOLUTIONS pertaining to Port State Controls are as follows:
  - A.9/Res.321 Procedures for the control of ships 12/11/1975
  - A.12/Res.466 Procedures of port state control 19/11/1981
  - A.15/Res.597 Amendments to the procedures for the control of ships 19/11/1987
  - A.19/Res.787 Procedures for port state control 23/11/1995
  - A 21/Res.882 Amendments to the procedures for port state control (Resolution A.787(19) 25/11/1999
- That the publication by IMO which gives the General Procedural Guidelines for Port State Control Officers are also of particular relevance to shipmaster.
- That a record of port State control inspections including safety-related details of many ships is available on the internet from the Equasis database and may be viewed by any member of the public.





- That Equasis forms part of the Quality Shipping campaign launched by the EU in 1997 which is formally supported by signatories from marine Administrations, classification societies, P&I clubs and the ITF.
- That more than 40 organisations provide information to Equasis and is used heavily by charterers and insurers as well as marine Administrations with port State control functions.

### **17. National legislation for implementing international agreements and conventions**

1hrs (T) + 0hrs (P) + 0hrs (E).

#### **Knowledge of;**

- The process by which international agreements and conventions are ratified and implemented into national legislation.

### **18. Use of leadership and managerial skill Shipboard Personnel Management and training**

#### **.1 Shipboard Personnel Management**

2hrs (T) + 0hrs (P) + 0hrs (E).

#### **i. Principles of Controlling Subordinates and Maintaining Good Relationships**

#### **Review of;**

- Theories in cultural awareness and cross cultural communication.
- Theories in human error, situational awareness, automation awareness, complacency and boredom.
- Theories in leadership and teamwork.

#### **Knowledge of;**

- theories on how effective authority and power may be enhanced or diminished by management level officers on ships.
- Strategies that management level officers could adopt to enhance their effectiveness in managing crews of different cultures.
- strategies that management level officers can adopt to optimise situational awareness and to minimise human error and complacency of individuals and teams
- Strategies that management level officers can adopt to enhance leadership and teamwork.
- Theories of personnel motivation and relates these to shipboard situations encountered by management level officers.
- That an individual's motivation and well being may be effected by both real and perceived influences on board ship and at home.
- Strategies that management levels officers could adopt to optimise the motivation of individuals and teams.
- Theories on coaching individuals and teams to improve performance.
- Approaches to managing and improving the performance of oneself, individuals and teams.
- Strategies that can be adopted when a crew member is believed to be physically or mentally unwell or badly demotivated.
- Strategies that management level officers can take to ensure that crew remains physically well and are encouraged to remain physically active.

#### **Ability to;**

- Identify sources of authority and power.
- Prepare for and conducts a simulated formal performance review.
- Identify the impact of repeated harassment including bullying on individuals.





- Recognise indications that crew members may be physically or mentally unwell or badly demotivated.

## ii. Crew Employment

### Knowledge of;

- The need for management level officers to be fully familiar with the requirements of national law relating to crew employment and of all crew agreements in place on the ship.
- The process for signing on and discharging crew under national law.
- The need to ensure that new crew are appropriately certificated, competent and familiarised with the safety management system, working procedures and equipment of the ship.
- Those procedures for conducting investigations and applying consequences in disciplinary situations are governed by national law, codes of conduct, employment agreements and company procedures.
- The process for investigating and applying consequences in disciplinary situations under relevant national law and procedures.
- The formal process for addressing continuing levels of unacceptable performance by a crew member under national law.
- The process for investigating and responding to incidents of harassment or bullying of crew members under national law.
- Requirements for handling crew wages, advances and allotments when this is done by management level officers on board ship.

## .2 Training

1hrs (T) + 0hrs (P) + 0hrs (E).

### i. Training Methods

#### Review

- Theories on training on board ship.

#### Knowledge of;

- The effectiveness of training methods that can be adopted for training.
  - in attitude
  - in skills
  - in knowledge
- The preparation needed before the start of a training session.
- Methods for ensuring that crew are motivated to participate fully in training.
- The resources that may be available on board ship that can be used for training.

#### Familiarity with;

- Lists the areas in which training is required by regulation including the requirements of SOLAS.
- Identifies other topics where training might be desirable.





**Ability to;**

- Delivers a training session to other members of the class.

**Demonstrate**

- How to conduct a training session for a given topic.

**.3 Related International Maritime Conventions and National Legislation** 1hrs (T) + 0hrs (P) + 0hrs (E).

**i. The ISM Code**

**Knowledge of;**

- The principles underlying the ISM Code.
- The content and application of the ISM Code.

**ii. STCW Convention**

**Knowledge of;**

- The principles underlying the STCW Convention.
- The content and application of the STCW Convention.
- How to implement the regulations for controlling and monitoring to minimum hours of rest for watchkeepers.
- What shipboard familiarization may involve for watchkeeping officers.
- What tasks or duties elementary basic safety familiarization involves for a watchkeeping officer.
- How to organize shipboard training and how to maintain records.

**Understanding of;**

- That seafarers new to a particular type of vessel require ship specific shipboard familiarization.
- That penalties are prescribed for breaches of STCW 95 requirements and that these are determined by the flag state.
- That national legislation is required to implement the provisions of an international convention.
- That for STCW 1978, as amended, national legislation is subject to scrutiny and checking by IMO appointed persons.
- That National legislation may differ from one flag to another.

**iii. Maritime Labour Convention (MLC)**

**Demonstrate**

- a working knowledge of the Maritime Labour Convention provisions relating to the management of personnel on board ship, with particular reference to;
  - engagement of crew
  - employment conditions
  - crew entitlements and repatriation





## 19. Application of task and workload management

**.1 task and workload management** 2hrs (T) + 0hrs (P) + 0hrs (E).

### Review

- Theories on applying task and workload management on Leadership and Teamwork.

### Knowledge of;

- The scope of activity and conflict between activities managed by management level officers is broader than for operational level officers and requires greater task and workload management ability.
- The task and workload allocation for significant shipboard activities so that the following are considered:
  - human limitations
  - personal abilities
  - time and resource constraints
  - prioritisation
  - workload, rest and fatigue

### Discuss

- Strategies to monitor the effectiveness of task and workload management during an activity and to adjust the plan as necessary.
- strategies to ensure that all personnel understand the activity to be undertaken and their tasks in this.
- Whether the encouragement of a challenge and response environment is appropriate to the task and workload management of particular shipboard tasks.
- The importance of debriefs and reflection after activities have been conducted to identify opportunities for improving task and workload management.

## 20. Effective Resource Management

**.1 Application of effective resource management at a management level** 2hrs (T) + 0hrs (P) + 0hrs (E).

### Review

- Theories on effective communication.
- Theories on effective resource allocation, assignment and prioritisation.
- Theories on decision making that considers team experience.
- Theories on assertiveness and leadership.
- Theories on obtaining and maintaining situational awareness.
- Theories on the use of short and long term strategies.

### Discuss

- How management level officers can encourage other personnel to use effective communications.
- Appropriate leadership styles and levels of assertiveness for management level officers in a range of shipboard activities.





**Demonstrate**

- The effective communication in simulated or real situations involving communications on board ship and between ship and shore.
- The effective allocation, assignment and prioritisation of resources when managing simulated or real shipboard activities.
- The ability to involve team member effectively in decision making when managing simulated or real shipboard activities.
- The ability to apply appropriate leadership styles and levels of assertiveness when managing simulated or real shipboard activities.
- The ability to obtain and maintain situational awareness when managing complex simulated or real shipboard activities.
- The ability to apply short and long term strategies when managing simulated or real shipboard activities.

**21. Decision Making Techniques**

**.1 Situation and risk assessment**

1hrs (T) + 0hrs (P) + 0hrs (E).

**Review**

- Theories of situation and risk assessment.

**Familiarity with;**

- Formal and informal approaches to risk assessment.
- Typical risks that management level officers may have to assess.

**Demonstrate**

- The ability to effectively assess risk in the planning and conduct of simulated or real shipboard activities.

**.2 Identify and Generate Options**

1hrs (T) + 0hrs (P) + 0hrs (E).

**Review**

- Theories on identifying and generating options.

**Demonstrate**

- The ability to identify and generate options when making decisions as a management level officer in simulated or real shipboard activity.

**.3 Selecting Course of Action**

1hrs (T) + 0hrs (P) + 0hrs (E).

**Review**

- Theories on selecting the course of action in making decisions.





**Demonstrate**

- The ability to select appropriate courses of action when making decisions as a management level officer in simulated or real shipboard activity.

**.4 Evaluation of outcome effectiveness** 1hrs (T) + 0hrs (P) + 0hrs (E).

**Knowledge of;**

- How to carry out the evaluation of outcome effectiveness and the importance of doing it.

**22. Personal Survival Techniques (PST)** 2hrs (T) + 2hrs (P) + 0hrs (E).

**Ability in;**

- Survive at sea in the event of ship abandonment:
  - don and use an immersion suit
  - safely jump from a height into the water (while wearing a lifejacket)
  - right an inverted liferaft while wearing a lifejacket
  - swim while wearing a lifejacket
  - keep afloat without a lifejacket

**23. Fire Prevention and Fire Fighting (FPFF)** 2hrs (T) + 2hrs (P) + 0hrs (E).

**Ability in;**

- Fight and extinguish fires:
  - use various types of portable fire extinguisher
  - extinguish smaller fires, e.g., electrical fires, oil fires, propane fires
  - extinguish extensive fires with water, using jet and spray nozzles
  - extinguish fires with foam, powder or any other suitable chemical agent
  - enter and pass through, with lifeline but without breathing apparatus, a compartment into which high-expansion foam has been injected
  - fight fire in smoke-filled enclosed spaces wearing self-contained breathing apparatus
  - extinguish fire with water or any other suitable fire-fighting agent in an accommodation room or simulated engine-room with fire and heavy smoke
  - extinguish oil fire with fog applicator and spray nozzles, dry chemical powder or foam applicators
  - effect a rescue in a smoke-filled space wearing breathing apparatus

**24. Proficiency in Survival Craft and Rescue Boat other than Fast Rescue Boats (PSCRB)**

2hrs (T) + 2hrs (P) + 0hrs (E).

**Ability in;**

- Take charge of a survival craft or rescue boat during and after launch:
  - right an inverted liferaft while wearing a lifejacket
  - operated off-load and on-load release devices
  - proper resetting of both off-load and on-load release devices
- Operate a survival craft engine:
  - ability to start and operate an inboard engine fitted in an open or enclosed lifeboat







- Use locating devices, including communication and signaling apparatus and pyrotechnics:
  - use signalling equipment, including pyrotechnics

**25. Advanced Fire Fighting (AFF) 2hrs (T) + 2hrs (P) + 0hrs (E).**

**Ability in;**

- Control fire-fighting operations aboard ships:
  - use of water for fire-extinguishing, the effect on ship stability, precautions and corrective procedures
  - fire fighting involving dangerous goods
- Organize and train fire parties:
  - preparation of contingency plans
  - composition and allocation of personnel to fire parties
  - strategies and tactics for control of fires in various parts of the ship
- Inspect and service fire-detection and fire-extinguishing systems and equipment:
  - fire-detection systems; fixed fire-extinguishing systems; portable and mobile fire-extinguishing equipment, including appliances, pumps and rescue, salvage, life-support, personal protective and communication equipment
  - requirements for statutory and classification surveys
- Investigate and compile reports on incidents involving fire:
  - assessment of cause of incidents involving fire

**5-7 facilities and equipment required for conducting the course**

Apart from those facilities, equipments and or requirements mentioned in Code of practice for approval and monitoring of maritime training courses followings have to be provided:

5-7-1 Classroom with air conditioning facilities, sufficient lighting and other facilities, suitable for delivering theoretical subjects (such as: white board, computer, multimedia projector and its curtain)

5-7-2 library with related technical books and references

5-7-3 relevant educational and training films

5-7-4 instruments relevant to the education and training.

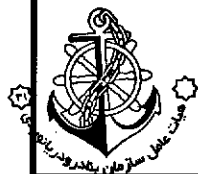
**5-8 Lecturers and instructors minimum qualifications**

5-8-1 Lecturers and instructors shall have completed a course in instructional techniques (TFT) and familiarization training on 2010 Manila amendment in one of the training centers approved by the PMO, and:

5-8-1-1 for lecturing in theoretical subjects should;

5-8-1-1-1 Possess valid Master certificate of competency for ships of GT≥3000 engaged on unlimited voyages as well as having 12 months of seagoing service in that rank.

5-8-1-2 for delivering practical training should;





5-8-1-2-1 Possess minimum nautical higher diploma as well as having two years of seagoing service.

### **5-9 Assessment and Certification**

5-9-1 upon successful completion of the examination which is carried out during and at the end of the course, the trainee will be awarded relevant course completion certificate issued by the approved training center; and

5-9-2 subsequently, in accordance with provisions of the "Codes of practices for issuing, revalidation and renewing certificates for seafarers" and upon fulfill other relevant certification requirements, a certificate of competency will be issued by the Seafarers' Examination and Documents Directorate of the PMO.

### **5-10 revalidation/renewal of certificates**

5-10-1 CoPs and CoCs will be revalidated and renewed in accordance with provisions of the Codes of practices for issuing, revalidation and renewing certificates for seafarers.

### **5-11 course approval**

5-11-1 It will be carried out as per code of practice for approval and monitoring of maritime training courses.

## **6-Records**

6-1 All records which present the implementation of the content of this code of practice.

## **7- References**

7-1 Codes of practices for issuing, revalidation and renewing certificates for seafarers.

7-2 The Code of Practice for Conducting Chief Mate on ships of Gross Tonnage (GT≥3000) Unlimited Voyages Training Course and Competency Assessments (P6-W118); and

7-3 Code of practice for approval and monitoring of maritime training courses.

## **8- Appendixes**

Nil

