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«TMSA - ΠΡΟΤΥΠΟ ΥΠΕΡΟΧΗΣ ΓΙΑ ΤΗΝ ΑΣΦΑΛΕΙΑ ΣΤΗ ΘΑΛΑΣΣΑ

ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»



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**TMSA**

**ΠΡΟΤΥΠΟ ΥΠΕΡΟΧΗΣ ΓΙΑ ΤΗΝ ΑΣΦΑΛΕΙΑ ΣΤΗ ΘΑΛΑΣΣΑ**

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ΠΕΙΡΑΙΑΣ Δεκέμβριος, 2009

Δηλώνω υπεύθυνα ότι, η παρούσα διπλωματική εργασία δεν έχει υποβληθεί για την απόκτηση άλλου μεταπτυχιακού τίτλου ειδίκευσης ή άλλου πτυχίου, πέραν αυτού, ολικά ή μερικά, στο Πανεπιστήμιο Πειραιά ή σε άλλο Πανεπιστήμιο του εσωτερικού ή του εξωτερικού.

Ο δηλών

Απόστολος Σκεμπές

### **Τριμελής Εξεταστική Επιτροπή**

Η παρούσα Διπλωματική Εργασία εγκρίθηκε ομόφωνα από την Τριμελή Εξεταστική Επιτροπή που ορίστηκε από τη ΓΣΕΣ του Τμήματος Ναυτιλιακών Σπουδών Πανεπιστημίου Πειραιώς, σύμφωνα με τον Κανονισμό Λειτουργίας του Προγράμματος Μεταπτυχιακών Σπουδών στη Ναυτιλία.

Τα μέλη της Επιτροπής ήταν:

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Κος Ερνέστος Τζαννάτος

Κος Αθανάσιος Τσελέντης

### Ευχαριστίες

Επιθυμώ να εκφράσω την εκτίμηση και τις ευχαριστίες μου στον Καθηγητή κ. Κ. Γκιζιάκη για την πολύτιμη βοήθεια και στήριξή του, τόσο κατά την διάρκεια της φοίτησης μου στο ΜΠΣ στη Ναυτιλία, όσο και κατά την διάρκεια της εκπόνησης της παρούσας διπλωματικής εργασίας.

Επίσης επιθυμώ να εκφράσω την εκτίμηση και τις ευχαριστίες μου στην μερίδα των λοιπών Καθηγητριών και Καθηγητών του Πανεπιστημίου Πειραιά που έδωσαν την ευκαιρία σε Αξιωματικούς του Ελληνικού εμπορικού ναυτικού να συμμετέχουν στο Μ.Π.Σ στη Ναυτιλία.

Τέλος, αφιερώνω την διπλωματική αυτή εργασία με εκτίμηση, στον Οικονομολόγο Δρ. Αθανάσιο Τσάκωνα, ο οποίος πρώτος μου ενέπνευσε την ιδέα της συμμετοχής μου σε Μ.Π.Σ. στα πλαίσια της δια βίου εκπαίδευσης, κατά τη διάρκεια μιας από τις πολλές ευχάριστες και ενδιαφέρουσες συζητήσεις που είχαμε στο παρελθόν.

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## Περίληψη

Στα πλαίσια των διαδικασιών «εξονυχιστικής Επιθεώρησης» δεξαμενοπλοίων – Vetting Inspections, για την δημιουργία της βάσης δεδομένων SIRE (Ship Inspection Report), παρουσιάστηκε το 2004 το πρόγραμμα Βέλτιστης Διαχειριστικής Πρακτικής **TMSA** (Tanker Management and Self Assessment).

Σκοπός, η μετεξέλιξη του εφαρμοζόμενου μέχρι τότε Διεθνούς Κώδικα Ασφαλούς Διαχείρισης (ISM Code) σε μία νέα μορφή Διαχειριστικής Πρακτικής που καλούνται να υλοποιήσουν οι Διαχειρίστριες Εταιρίες δεξαμενοπλοίων.

Η υποχρέωση της επίδειξης ευαισθησίας και δράσης, εκ μέρους των Διαχειριστών Δεξαμενοπλοίων σε θέματα ασφάλειας και προστασίας του περιβάλλοντος, που καθιερώθηκε με την εφαρμογή του Διεθνούς Κώδικα **ISM**, ισχυροποιείται μέσω της υλοποίησης του προγράμματος **TMSA**, το οποίο στοχεύει σε μία διαδικασία ποιοτικής αξιολόγησης και συνεχούς βελτίωσης του Συστήματος Διαχείρισης.

Μέσω της παροχής ενός Πρότυπου Πλαισίου Εργασίας, που περιέχει οδηγίες και κατευθυντήριες γραμμές, δίνεται η δυνατότητα δημιουργίας ενός Ποιοτικού Συστήματος Διαχείρισης.

Ο Διαχειριστής Δεξαμενοπλοίων, που ήδη εφαρμόζει ένα πρόγραμμα Ασφαλούς Διαχείρισης βάσει του Διεθνούς Κώδικα Ασφαλούς Διαχείρισης (ISM Code), έχει να συγκρίνει δύο στοιχεία. Από την μια πλευρά υπάρχει το τρέχον Σύστημα Ασφαλούς Διαχείρισης και από την άλλη υπάρχει το προτεινόμενο Πρόγραμμα **TMSA**, με τους Βασικούς Δείκτες Απόδοσης και την Καθοδηγητική Πρακτική Εφαρμογής.

Ο κάθε Διαχειριστής, καθορίζει το επίπεδο στο οποίο βρίσκεται το Σύστημα Ασφαλούς Διαχείρισης που εφαρμόζεται στο δεξαμενόπλοιο του, εκτιμώντας τα αποτελέσματα από την εφαρμογή του ή συνδυάζοντας πρακτικές που χρησιμοποιούνται στην αντίστοιχη ναυτιλιακή αγορά. Βάσει των πληροφοριών που καταχωρούνται στο αρχείο του, διαμορφώνει αντικειμενική εικόνα της επίτευξης ή μη των προσπαθειών του. Έτσι αναγνωρίζονται τα κενά στον σχεδιασμό και τις διαδικασίες του Συστήματος, καθορίζονται οι περαιτέρω στόχοι και διορθωτικές ενέργειες, για την ολοκλήρωση της διαδικασίας και την μελλοντική βελτίωση. Εφ' όσον εξασφαλίζονται οι βάσεις και ο σωστός σχεδιασμός κάθε συστήματος, ακολουθεί το κρίσιμο στάδιο της δράσης που συνοψίζεται στην εφαρμογή του σχεδίου.

Το πρόγραμμα **TMSA** περιέχει οδηγίες σχεδιασμένες κατά τέτοιο τρόπο ώστε να βοηθούν τους Διαχειριστές, παρέχοντας τους συνεχώς βελτιωμένα εργαλεία δράσης και τεχνικές. Σε αυτά περιλαμβάνονται διαδικασίες ελέγχου, εκτιμήσεις και τήρηση / αξιολόγηση αρχείου πληροφοριών και επιτευγμάτων. Η πρώτη περίοδος αυτό-αξιολόγησης οριοθετεί το επίπεδο που βρίσκεται η Διαχειρίστρια Εταιρία και οι επερχόμενες αυτό-αξιολογήσεις καταδεικνύουν την πρόοδο.

Εντός της παρούσης εργασίας παρουσιάζονται βαθμίδες και παράγοντες, δια μέσου των οποίων πραγματοποιούνται οι Μετρήσεις / Εκτιμήσεις των Διαδικασιών.

Παρατίθεται η Αυτό-αξιολόγηση Διαχειρίστριας Ναυτιλιακής Εταιρίας Δεξαμενοπλοίων, που εφαρμόζει Σύστημα Ασφαλούς Διαχείρισης, βάσει των δεικτών του προγράμματος TMSA.

Ακολουθεί η αναφορά της Ναυτιλιακής Εταιρίας, σχετικά με την πρόοδο της, επί της υλοποίησης του προγράμματος.

Τέλος, συμπεριλαμβάνονται παραδείγματα επίτευξης των θεσπισμένων Κύριων Αντικειμενικών Σκοπών, μέσω της χρήσης μερικών από τους Βασικούς Δείκτες Απόδοσης

Με τα παρατιθέμενα αυτά παραδείγματα εφαρμογής των Δεικτών Απόδοσης για τα διάφορα Στοιχεία και σε διαφορετικά επίπεδα της εφαρμογής του προγράμματος **TMSA**, αποδεικνύεται με την εκπόνηση της Διπλωματικής αυτής εργασίας, το περιθώριο βελτίωσης που μπορεί να επιτελεστεί σε ένα ήδη καλά οργανωμένο και πιστά τηρούμενο Σύστημα Ασφαλούς Διαχείρισης.

Το συμπέρασμα στο οποίο καταλήγουμε είναι πως πάντα υπάρχουν ανώτερα στάδια απόδοσης που ο κάθε απασχολούμενος στον κλάδο της ναυτιλίας πρέπει να στοχεύει, αρκεί να επιλεγεί η μέθοδος που αρμόζει στην Πολιτική της Εταιρίας, να επισημανθούν οι κατευθύνσεις και να υπάρχει ένα εμφανές μέτρο σύγκρισης, επί του οποίου ο κάθε ένας θα κάνει την αυτοκριτική του.



### **Abstract**

In 2004, OCIMF (the Oil Companies International Marine Forum), introduced a Best Practice guidance for the Tanker Fleet Operators / Managers, in order to ensure the strict implementation of Safety and Environmental Policies, as these had been imposed due to the ISM Code, since 1998.

The reason for this new proposed programme, was that – although SIRE data base had been formed for quite a long time and Vetting Inspections for Tankers were in full application by the Oil Majors – substandard vessels were still available in the oil transportation market.

The hiring of such substandard vessels, led to major Maritime accidents at the early 00's, M/T “ERICA” in 2000 and M/T “PRESTIGE” in 2002, being the most sound.

Based upon 12 ELEMENTS, with KEY POINT INDICATORS (KPI's) for the FOUR Stages of each Element and with the addition of Best Practice Guidance on each item, TMSA was set to introduce new and advanced Safety Management Systems, or to upgrade the existing ones. Self Assessment leads to Self Criticism, gaps and deficiencies are recognized and evaluated through the implementation of Risk Assessments, Statistics and Trend Analysis, aiming to force Tanker Managers into higher Status achievement for their Managerial Systems.

This essay, deals with the preparation of a Tanker Management Company in terms of adopting the TMSA guidelines.

First step is the comparison of the existing SMS to the proposed Best Practices and the assessment which states the level of existence for this SMS.

Following comes the Summary Report Document with comments by the Operator regarding the gaps and the deficiencies (YES / NO statement on the KPI's for each stage).

The essay gives examples for the introduction of Best Practices in a system and the tools which can lead to upgrading of the Status. Summary and conclusions are proving the existence of a place for improvements in every Safety Management System, higher level of Policies' enforcement and a self estimation which can put everyone through their obligations.

## ΕΙΣΑΓΩΓΗ

Στα πλαίσια των διαδικασιών «εξονυχιστικής Επιθεώρησης» δεξαμενοπλοίων – Vetting Inspections, για την δημιουργία της βάσης δεδομένων SIRE (Ship Inspection Report), παρουσιάστηκε το 2004 το πρόγραμμα Βέλτιστης Διαχειριστικής Πρακτικής **TMSA** (Tanker Management and Self Assessment).

Σκοπός, η μετεξέλιξη του εφαρμοζόμενου μέχρι τότε Διεθνούς Κώδικα Ασφαλούς Διαχείρισης (ISM Code) σε μία νέα μορφή Διαχειριστικής Πρακτικής που καλούνται να υλοποιήσουν οι Διαχειρίστριες Εταιρίες δεξαμενοπλοίων. Η υποχρέωση της επίδειξης ευαισθησίας και δράσης, εκ μέρους των Διαχειριστών Δεξαμενοπλοίων σε θέματα ασφάλειας και προστασίας του περιβάλλοντος, που καθιερώθηκε με την εφαρμογή του Διεθνούς Κώδικα **ISM**, ισχυροποιείται μέσω της υλοποίησης του προγράμματος **TMSA**, το οποίο στοχεύει σε μία διαδικασία ποιοτικής αξιολόγησης και συνεχούς βελτίωσης του Συστήματος Διαχείρισης. Μέσω της παροχής ενός Πρότυπου Πλαισίου Εργασίας, που περιέχει οδηγίες και κατευθυντήριες γραμμές, δίνεται η δυνατότητα δημιουργίας ενός Ποιοτικού Συστήματος Διαχείρισης.

Ο Διαχειριστής Δεξαμενοπλοίων, που ήδη εφαρμόζει ένα πρόγραμμα Ασφαλούς Διαχείρισης βάσει του Διεθνούς Κώδικα Ασφαλούς Διαχείρισης (ISM Code), έχει να συγκρίνει δύο στοιχεία. Από την μια πλευρά υπάρχει το τρέχον Σύστημα Ασφαλούς Διαχείρισης και από την άλλη υπάρχει το προτεινόμενο Πρόγραμμα **TMSA**, με τους Βασικούς Δείκτες Απόδοσης και την Καθοδηγητική Πρακτική Εφαρμογής.

Ο κάθε Διαχειριστής, καθορίζει το επίπεδο στο οποίο βρίσκεται το Σύστημα Ασφαλούς Διαχείρισης που εφαρμόζεται στο δεξαμενόπλοιο του, εκτιμώντας τα αποτελέσματα από

την εφαρμογή του ή συνδυάζοντας πρακτικές που χρησιμοποιούνται στην αντίστοιχη ναυτιλιακή αγορά. Βάσει των πληροφοριών που καταχωρούνται στο αρχείο του, διαμορφώνει αντικειμενική εικόνα της επίτευξης ή μη των προσπαθειών του. Έτσι αναγνωρίζονται τα κενά στον σχεδιασμό και τις διαδικασίες του Συστήματος, καθορίζονται οι περαιτέρω στόχοι και διορθωτικές ενέργειες, για την ολοκλήρωση της διαδικασίας και την μελλοντική βελτίωση. Εφ' όσον εξασφαλίζονται οι βάσεις και ο σωστός σχεδιασμός κάθε συστήματος, ακολουθεί το κρίσιμο στάδιο της δράσης που συνοψίζεται στην εφαρμογή του σχεδίου. Το πρόγραμμα **TMSA** περιέχει οδηγίες σχεδιασμένες κατά τέτοιο τρόπο ώστε να βοηθούν τους Διαχειριστές, παρέχοντας τους συνεχώς βελτιωμένα εργαλεία δράσης και τεχνικές. Σε αυτά περιλαμβάνονται διαδικασίες ελέγχου, εκτιμήσεις και τήρηση / αξιολόγηση αρχείου πληροφοριών και επιτευγμάτων. Η πρώτη περίοδος αυτό-αξιολόγησης οριοθετεί το επίπεδο που βρίσκεται η Διαχειρίστρια Εταιρία και οι επερχόμενες αυτό-αξιολογήσεις καταδεικνύουν την πρόοδο.

Με μία σειρά παρατιθέμενα παραδείγματα εφαρμογής των Δεικτών Απόδοσης για τα διάφορα Στοιχεία και σε διαφορετικά επίπεδα της εφαρμογής του προγράμματος **TMSA**, αποδεικνύεται με την εκπόνηση της Διπλωματικής αυτής εργασίας, το περιθώριο βελτίωσης που μπορεί να επιτελεστεί σε ένα ήδη καλά οργανωμένο και πιστά τηρούμενο Σύστημα Ασφαλούς Διαχείρισης.

Το συμπέρασμα στο οποίο καταλήγουμε είναι πως πάντα υπάρχουν ανώτερα στάδια απόδοσης που ο κάθε απασχολούμενος στον κλάδο της ναυτιλίας πρέπει να στοχεύει, αρκεί να επιλεγεί η μέθοδος που αρμόζει στην Πολιτική της Εταιρίας, να επισημανθούν

οι κατευθύνσεις και να υπάρχει ένα εμφανές μέτρο σύγκρισης, επί του οποίου ο κάθε ένας θα κάνει την αυτοκριτική του.



## 1. ΙΣΤΟΡΙΚΟ

Η δια του υγρού στοιχείου μεταφορά αγαθών, χρονολογείται από την εποχή που για πρώτη φορά ένας κορμός δέντρου παρασύρθηκε από τα ορμητικά νερά ενός παραπόταμου, κατέληξε στην εκβολή του ποταμού και από εκεί παρασύρθηκε κατά μήκος της ακτογραμμής, για να καταλήξει / προσαράξει κοντά σε κάποιο καταυλισμό και να χρησιμοποιηθεί / αξιοποιηθεί από τους κατοίκους που τον ανακάλυψαν.

Η αντίστοιχη διαδικασία, εξελιγμένη, οργανωμένη, νομοθετημένη και σαφώς πιο πολύπλοκη, συνεχίζεται με αμείωτο ρυθμό έως τις μέρες μας, αποτελώντας τον συνδετικό και τροφοδοτικό ιστό των ανεπτυγμένων και αναπτυσσόμενων οικονομιών του πλανήτη μας. Σημάδια μείωσης των θαλασσίων μεταφορών δεν διαφαίνονται στον ορίζοντα, ενώ οι επικρατούσες κρίσεις του κλάδου, περισσότερο ακραία αλλά περαστικά καιρικά φαινόμενα θυμίζουν, παρά θορυβούν τους - σώφρονες και καλούς μελετητές της ναυτιλιακής ιστορίας - παράγοντες του χώρου.

Η αύξηση της θαλάσσιας μεταφορικής ανάγκης, επέφερε την διόγκωση, επιτάχυνση και εξειδίκευση στο μέσο που χρησιμοποιείται για την μεταφορά, το πλοίο. Επέφερε την δημιουργία θαλάσσιων δίοδων, παράκτιων σταθμών φορτοεκφορτώσεως και διεπαφής πλοίου και Κοινωνίας, την ανάδειξη αλλά και την παρακμή ναυτικών λαών και την πολυεθνικότητα στις συνθέσεις των πληρωμάτων των πλοίων.

Η διόγκωση των πλοίων οδηγεί τα ναυπηγεία να «χτίζουν» μεγαθήρια των 400 μέτρων μήκους και των 20 και πλέον κόμβων ταχύτητας, η επιτάχυνση σε όλες τις διαδικασίες της μεταφοράς, συνέβαλε στην βέλτιστη αξιοποίηση του πλοίου - μείωση χρόνου παραμονής στο λιμάνι / ταχύτερη κάλυψη των θαλασσίων αποστάσεων – και η

εξειδίκευση δημιουργεί απαιτήσεις «δια βίου εκπαίδευσης» και την ανάγκη συμπλήρωσης των βασικών γνώσεων κάθε απασχολούμενου στη ναυτιλία, με τη συμμετοχή σε σεμινάρια και την διαρκή αναζήτηση στο διαδίκτυο.

Η ναυτιλία, ο κλάδος των δια του υγρού στοιχείου μεταφορών, περιλαμβάνει τις Ναυτιλιακές Εταιρίες, με τα πλοία και τα πληρώματα τους, τους συνεργάτες και κάθε λογής εμπλεκόμενους στο μεταφορικό έργο, τις εποπτικές αρχές και την Κοινωνία που τροφοδοτεί και τροφοδοτείται με το ανθρώπινο δυναμικό.

Οι απλοί εργαζόμενοι, οι ναυτικοί, αναπολούν τις παλιές εποχές, τότε που τα πλοία «κάθονταν» στα λιμάνια για μέρες, ενώ την σύγχρονη εποχή, η παραμονή του πλοίου σπάνια υπερβαίνει τα δύο εικοσιτετράωρα, μέσα στα οποία πρέπει να συγχωνευθούν οι εργασίες φορτίου, η παραλαβές εφοδίων και καυσίμων, η διενέργεια επιθεωρήσεων και κάποιες εργασίες συντήρησης ή επισκευής.

Οι Ναυτιλιακές Εταιρίες από την μεριά τους, δια μέσου των διαχειριστών τους, ανταγωνίζονται αλλήλους, προσπαθούν να μην εκτεθούν έναντι των ναυλωτών, υιοθετούν κάθε νέο κανονισμό, πρότυπο, πρόγραμμα διαχείρισης και μέθοδο εσωτερικού ελέγχου – αξιολόγησης, σε μία ατέρμονα προσπάθεια να αποφύγουν τα περιστατικά και τα ατυχήματα.

Καθώς το κάθε ατύχημα περιλαμβάνει κάποιο κόστος, προσωπικό – κοινωνικό – ψυχολογικό – υλικό και πάνω απ' όλα, βλάπτει ανεπανόρθωτα τη φήμη και της υπόληψη που με τόσο κόπο η κάθε Ναυτιλιακή Εταιρία προσπαθεί να εδραιώσει, οι προσπάθειες συντονίζονται στην ασφαλή διαχείριση και την εξάπλωση μίας ασφαλούς και θετικής κουλτούρας εργασίας και διαβίωσης επί του πλοίου.

Από την πλευρά της Κοινωνίας και των εποπτικών αρχών, οι προσπάθειες συντονίζονται στην αποφυγή περιστατικών που αμαύρωσαν (κυριολεκτικά και μεταφορικά) την ιστορία των θαλασσιών μεταφορών, εξ αιτίας σημαντικών ατυχημάτων που είχαν ως αποτέλεσμα την απώλεια χιλιάδων ψυχών (ναυτικό ατύχημα DONNA PAZ<sup>1</sup> στη θαλάσσια περιοχή των Φιλιππίνων : 4.200 απώλειες), είτε την διαρροή ρυπογόνων ουσιών στη θάλασσα (ατυχήματα δεξαμενοπλοίων), με καταστροφικά αποτελέσματα για την χλωρίδα και πανίδα της περιοχής αλλά και την άμεση ή έμμεση ζημιά που υπέστησαν οι τοπικοί πληθυσμοί.

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<sup>1</sup> Αποτελεί το χειρότερο, από πλευράς απωλειών Ανθρωπίνων ζώων στην ιστορία της σύγχρονης ναυτιλίας, ατύχημα επιβατηγού πλοίου.

Την 20η Δεκεμβρίου 1987, πλέοντας προς Μανίλα και διασχίζοντας την θάλασσα των Φιλιππίνων, μεταξύ των νησιών Μιντόρο και Μαριντούκ, Το Ε/Γ DONA PAZ συγκρούστηκε με το τοπικών πλοίων δεξαμενόπλοιο VECTOR. Το Δ/Ξ VECTOR μετέφερε 680 τόννους Βενζίνη.

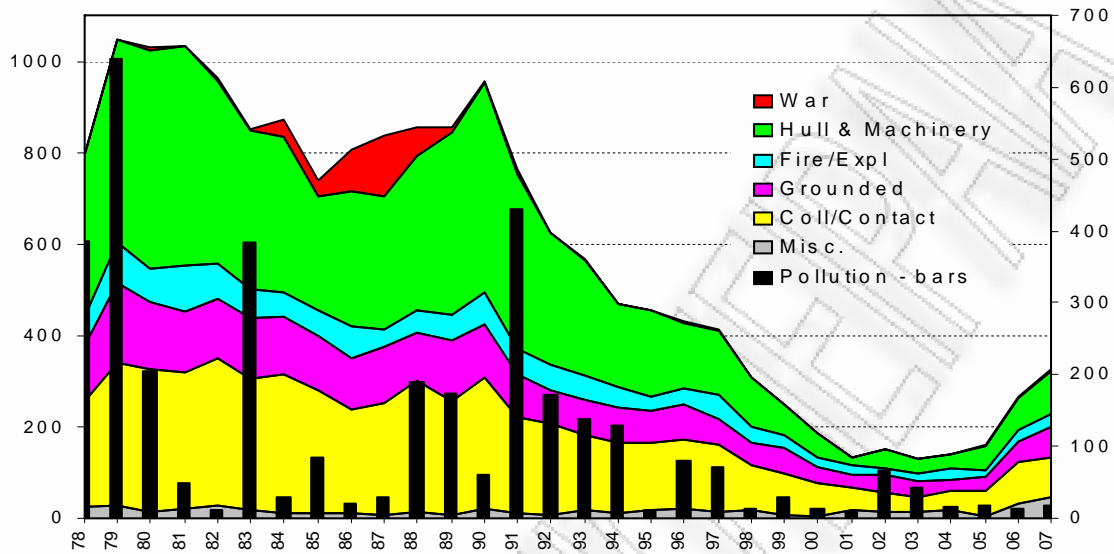
Αποτέλεσμα της σύγκρουσης ήταν να βυθιστούν και τα δύο πλοία, με την Βενζίνη να εξαπλώνεται φλεγόμενη σε μεγάλη θαλάσσια επιφάνεια, περικυκλώνοντας τα δύο πλοία και κάνοντας αδύνατη την διαφυγή των ναυαγών. Το DONA PAZ είχε πρωτόκολλο για 1.518 επιβάτες, αλλά λόγω της επερχόμενης γιορτής των Χριστουγέννων, ήταν υπερφορτωμένο.

Από την καταμέτρηση των αγνοουμένων, καθώς μόνο 270 καμμένα πτώματα εξεβράσθησαν στην ακτή, βρέθηκε πως ο αριθμός των απωλεσθέντων ανήλθε στους 4.386.

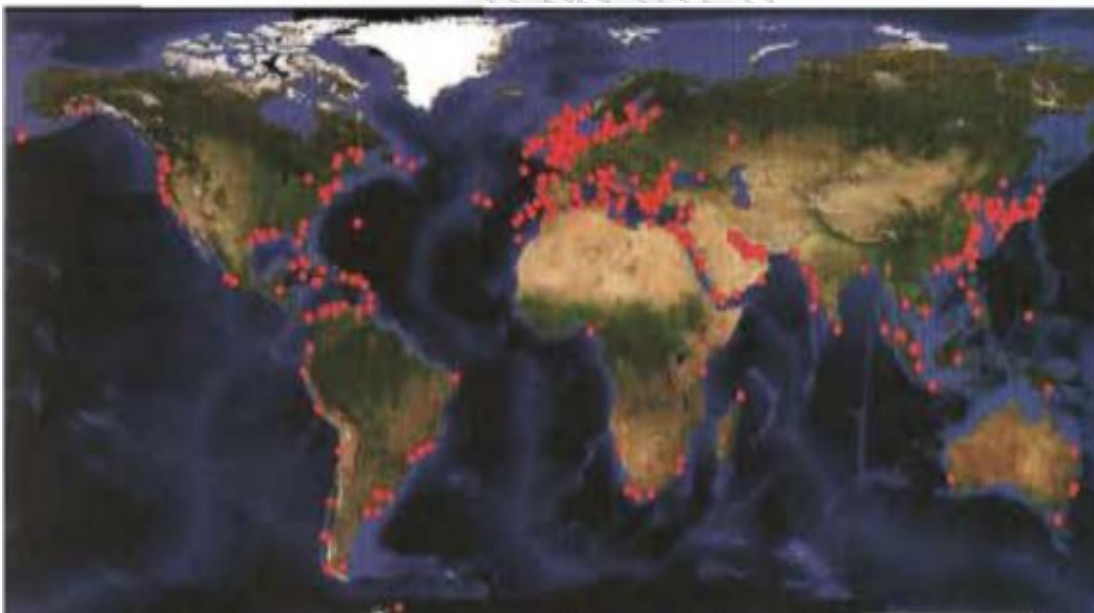
Ανάμεσα σε αυτούς ήταν και όλα τα μέλη του πληρώματος του Επιβατηγού, σύνολο 58, καθώς και 11 από τα 13 μέλη του πληρώματος του Δεξαμενόπλοιου. Επέζησαν μόνο 2 μέλη από το πλήρωμα του δεξαμενοπλοίου και 24 επιβάτες.

Από τις καταθέσεις των επιζώντων, έγινε γνωστό πως το πλοίο ήταν γεμάτο με οικογένειες και ο αριθμός των μικρών παιδιών υπολογίστηκε σε 1000 περίπου. Αυτό είχε και σαν αποτέλεσμα την υπερβολικά υπεράριθμη φόρτωση...





Ατυχήματα δεξαμενοπλοίων των τελευταίων 30 χρόνων, πηγή INTERTANKO



Oil spills 1970 – 2007, πηγή OCIMF

Το πλέον χαρακτηριστικό περιστατικό, που απεικονίζει ξεκάθαρα την σημαντικότητα και την σοβαρότητα ενός ναυτικού ατυχήματος σε σχέση με την ζημιά που προξενεί, είναι το

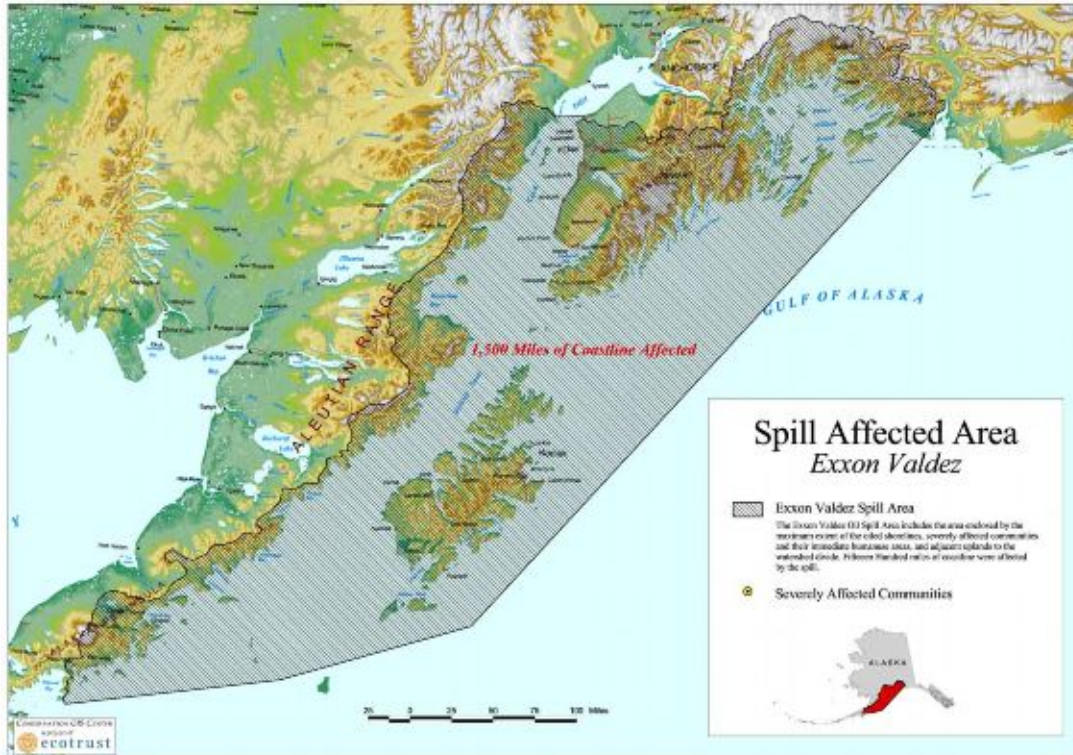
ατύχημα της προσάραξης και διαρροής φορτίου του Δ/Ξ “EXXON VALDEZ”<sup>2</sup>, στην θαλάσσια περιοχή της Αλάσκα. Παρότι σαν ποσότητα φορτίου που διέρρευσε από τις δεξαμενές είναι σχετικά μικρή – σε σχέση πάντα με άλλα ατυχήματα δεξαμενοπλοίων που είχαν σαν αποτέλεσμα την διαρροή ρυπογόνου φορτίου στο περιβάλλον, το σχετικό ναυτικό ατύχημα είναι το πλέον γνωστό παγκοσμίως, ακόμη και σε άτομα που ουδεμία σχέση έχουν με τον χώρο της ναυτιλίας, αλλά επιπλέον περιλαμβάνει και τα υψηλότερα ποσά που έχουν επιδικαστεί και καταβληθεί σε σχέση με ασφαλιστικές καλύψεις, απαιτήσεις αποζημίωσης και έξοδα αποκατάστασης των ζημιών.

Στα πλαίσια της προσπάθειας και της οργάνωσης – επιβολής προτύπων για την μείωση - αποφυγή των ατυχημάτων και της προστασίας του περιβάλλοντος, Διεθνείς συμβάσεις, κανόνες, κανονισμοί, προγράμματα και πρότυπα έχουν παρουσιαστεί, υιοθετηθεί, επιβληθεί και συμπεριληφθεί σε Εθνικές νομοθεσίες. Γνωστότερα όλων, οι Διεθνείς συμβάσεις SOLAS, MARPOL, STCW, οι κώδικες ISM και ISPS, και πλήθος άλλων που υφίστανται ή αναμένονται.

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<sup>2</sup> Προσάραξε την 24<sup>η</sup> Μαρτίου 1989, στον ύφαλο Bligh, θαλάσσιας περιοχής Prince William Sound της Αλάσκα. Η ποσότητα φορτίου που διέρρευσε ήταν 37.000 Μ/Τ πετρέλαιο, σχετικά λίγη ως προς τους 287.000 Μ/Τ που διέρρευσαν από την σύγκρουση μεταξύ δύο (Ελληνικών συμφερόντων) δεξαμενοπλοίων στην Θαλάσσια περιοχή της Καραϊβικής (νήσος Τομπάγκο). Όμως το πετρέλαιο που διέρρευσε παρασύρθηκε προς τις ακτές και μόλυνε 1.500 μίλια ακτογραμμής (στην περίπτωση της ρύπανσης στην Καραϊβική, το πετρέλαιο παρασύρθηκε στην ανοικτή θάλασσα). Επιπλέον, το περιστατικό συνέβη σε οικολογικά ευαίσθητη περιοχή (Αλάσκα) που ανήκει στις Η.Π.Α. - χώρα με έντονο το κοινωνικό στοιχείο, υπερευαίσθησια ως προς τα δικαιώματα των πολιτών καθώς και ευρεία διάδοση των ΜΜΕ (ήδη από την εποχή που συνέβη το ναυτικό ατύχημα).

Έτσι προβλήθηκε πολύ το ατύχημα, καταγράφηκαν τεράστιες απώλειες σπανίων ειδών της τοπικής πανίδας (250.000 θαλασσοπούλια, 2.800 θαλάσσιοι ελέφαντες, 300 φώκιες, 22 φάλαινες, αμέτρητα είδη ψαριών), υποβαθμίστηκε η διαβίωση των τοπικών κοινωνιών, με αποτέλεσμα το ύψος των αποζημιώσεων που καταβλήθηκαν για εργασίες καθαρισμού των ακτών (3.000 εργάτες επί δύο έτη) και σε λοιπές απαιτήσεις που επιδικάστηκαν, να ξεπεράσει τα 2.5 δισεκατομμύρια δολάρια.



Σχετικά με την ασφαλή διαχείριση, την οργάνωση των Ναυτιλιακών Εταιριών, την υποχρέωση της δημιουργίας ενός σοβαρού και απεγάδιαστου προφίλ ως προς την Ασφάλεια, την Υγιεινή και την προστασία του περιβάλλοντος, για τα δεξαμενόπλοια και τις Διαχειρίστριες Εταιρίες, ο εφαρμοζόμενος από το 1998 κώδικας ISM μετεξελίσσεται στο πρόγραμμα **TMSA**. Πέραν της επίτευξης υψηλού επιπέδου οργάνωσης, διοίκησης, απόδοσης και υπηρεσιών, οι διαχειρίστριες εταιρίες υλοποιούν και ένα πρόγραμμα αυτό-αξιολόγησης, με απώτερο σκοπό την εύρεση ελλείψεων και αστοχιών του συστήματος τους, την κάλυψη των κενών ή την αποκατάσταση των δυσλειτουργιών καθώς και την συνεχή προσπάθεια βελτίωσης και προώθησης σε ανώτερη βαθμίδα κατάστασης εργασιών.

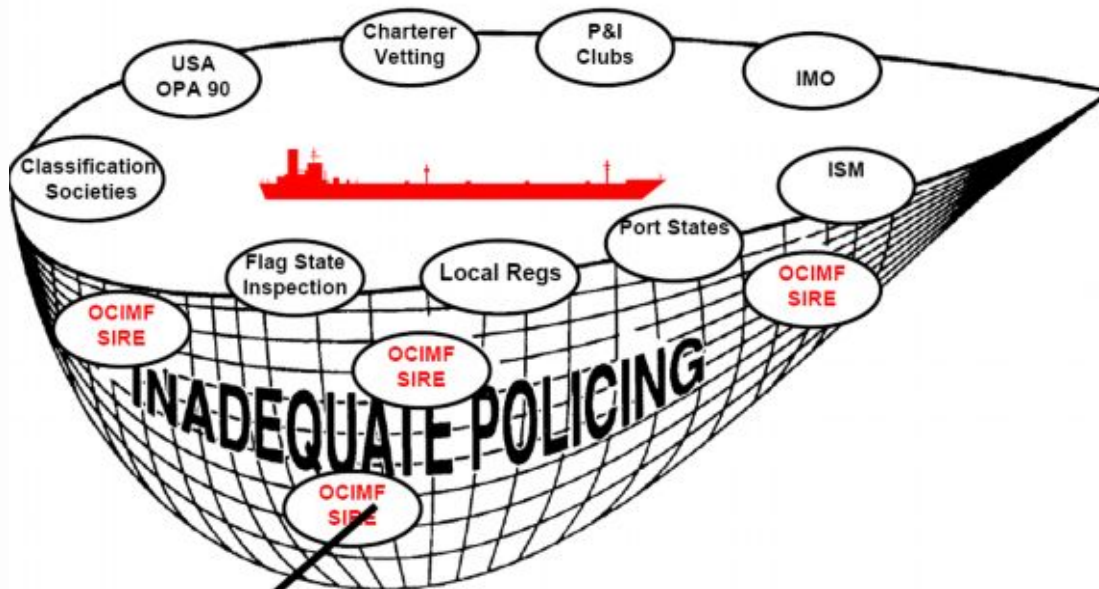
Η παρούσα εργασία σκοπό έχει να παρουσιάσει την μέθοδο υλοποίησης ενός προσράμματος TMSA, βάσει της εμπειρίας που απέκτησε ο συντάκτης της εργασίας, μέσω της συμμετοχής του στο αντίστοιχο έργο που εκπονήθηκε από Ελληνική Ναυτιλιακή Εταιρία. Παρουσιάζεται η προετοιμασία της Ναυτιλιακής Εταιρίας σε σχέση με την αυτό-αξιολόγηση και κατάταξη της σε ένα αρχικό λειτουργικό επίπεδο και η επακολουθούσα αναφορά που συντάσσεται και αποστέλλεται, για την τεκμηρίωση της επίτευξης του δηλωθέντος επιπέδου. Παρατίθενται παραδείγματα των διαφόρων επιπέδων αξιολόγησης και των διαχειριστικών συστημάτων που χρησιμοποιούνται. Μέσω αυτών των δύο διαδικασιών (αυτό-αξιολόγηση – κατάταξη σε αρχικό επίπεδο και αναφορά κατάστασης – προόδου), η κάθε Διαχειρίστρια Εταιρία Δεξαμενοπλοίων, θέτει πρότυπα, στόχους, προγραμματισμό και υποδηλώνει την θετική και ειλικρινή πρόθεση της να υλοποιήσει ένα πρόγραμμα, όχι μόνο διατήρησης των κεκτημένων αλλά και συνεχούς βελτίωσης του διαχειριστικού έργου της.

## 2. T M S A – Η δεύτερη φάση του προγράμματος

Το 2004, παρουσιάστηκε από το OCIMF (the Oil Companies International Marine Forum), το πρόγραμμα Βέλτιστης Διαχειριστικής Πρακτικής **TMSA** (the Tanker Management and Self Assessment guidelines). Εντάθηκε στα πλαίσια των διαδικασιών «εξονυχιστικής Επιθεώρησης» δεξαμενοπλοίων – Vetting Inspections, που με την σειρά τους τροφοδοτούν το πρόγραμμα δημιουργίας μιας – προσβάσιμης από τους παράγοντες της Βιομηχανίας παραγωγής και διακίνησης υγρών καυσίμων (Oil Majors) - βάσης δεδομένων SIRE (Ship Inspection Report). Σκοπός της βάσης δεδομένων SIRE, η αποφυγή μεταφοράς υγρών φορτίων με πλοίο χαμηλού επιπέδου εξοπλισμού και απόδοσης (Sub-Standard Tanker). Σκοπός του προγράμματος **TMSA**, η μετεξέλιξη του εφαρμοζόμενου μέχρι τότε Διεθνούς Κώδικα Ασφαλούς Διαχείρισης (the ISM Code) σε μία νέα μορφή Διαχειριστικής Πρακτικής που καλούνται να υλοποιήσουν οι Διαχειρίστριες Εταιρίες δεξαμενοπλοίων.

Το σκεπτικό πίσω από την παρουσίαση του προγράμματος **TMSA**, είναι πως για να κυκλοφορούν ακόμη στην «πιάτσα» Sub-Standard Tankers, αυτό αποδίδεται στην ύπαρξη Sub-Standard Management. Βέβαια, η κάθε Διαχειρίστρια Εταιρία δεξαμενοπλοίων, δεν υποχρεούται μόνο στην συμμόρφωση απέναντι στον Κώδικα ISM, έχοντας παράλληλα να αντιμετωπίσει απαιτήσεις Αρχών σημαίας νηολογήσεως, νηογνομόνων, ναυλωτών και τοπικών κανονισμών. Όμως κάποιοι Διαχειριστές, όπως αποδεικνύεται με την οδυνηρή εξακολούθηση της ύπαρξης συγκλονιστικών ναυτικών

ατυχημάτων (Δ/Ξ “ERICA” – 2000 και Δ/Ξ “PRESTIGE” – 2002), τηρούν ανεπαρκείς πρακτικές διαχείρισης και «θολές» πολιτικές λειτουργίας.



Έτσι λοιπόν το πρόγραμμα SIRE που έχει δρομολογηθεί από το 1993 και επίσημα παρουσίασε την βάση δεδομένων από το 1997, υποστηρίζεται και ισχυροποιείται μέσω της υλοποίησης του προγράμματος **TMSA**, της υπόδειξης δηλαδή προς τον κάθε Διαχειριστή, ως προς την υλοποίηση ενός Συστήματος Διαχείρισης που σε κάθε Αυτό-αξιολόγηση θα πρέπει να παρουσιάζεται βελτιωμένο.

Τα τέσσερα επίπεδα απόδοσης, εντός των οποίων κάθε Διαχειριστικό Σύστημα εντάσσεται μετά την πρώτη Αυτό-αξιολόγηση, δεν υφίστανται για να οριοθετήσουν το τέλος της προσπάθειας, όταν επιτευχθούν οι απώτεροι στόχοι της αναρρίχησης στην υψηλότερη βαθμίδα, αλλά για να διακρίνουν την βαρύτητα των κάθε λογής Δεικτών

Απόδοσης (KPI's), που μπορούν να εισαχθούν στην Αυτό-αξιολόγηση και την προσπάθεια βελτίωσης. Οι Δείκτες αυτοί είναι αμέτρητοι, η επίτευξη και εκπλήρωση κάθε στόχου αυτόματα θέτει τις προϋποθέσεις για την θέσπιση καλύτερου / υψηλότερου επιπέδου αποδοτικότητας που χρειάζεται να φτάσει το κάθε Διαχειριστικό Σύστημα.

Το 2008, η δεύτερη έκδοση του προγράμματος **TMSA** παρουσιάστηκε, με πρώτο και κύριο λόγο ύπαρξης την συμμόρφωση ως προς τις αναθεωρημένες διατάξεις Διεθνών Συμβάσεων και Κανονισμών (MARPOL, STCW) ή την συμπερίληψη των νέων που τέθηκαν ή πρόκειται να τεθούν στο άμεσο μέλλον σε ισχύ (ILO Convention, Ballast Water Management).

Η δεύτερη αυτή έκδοση, διαμορφώθηκε ως προς τις κατευθύνσεις που προτάσσει και τους Βασικούς Δείκτες Απόδοσης που περιλαμβάνει, ώστε να καταστεί πιο εύχρηστη, κατανοητή και εφαρμόσιμη, αλλά και να επεκταθεί σε ένα μεγαλύτερο μέρος των μεταφορέων υγρών καυσίμων, που με την προηγούμενη πρώτη έκδοση δεν μπορούσε εύκολα να προσεγγιστεί. Αυτοί είναι οι Διαχειριστές μικρών δεξαμενοπλοίων και εφοδιαστικών πλοιαρίων (Small Coastal Tankers and Barges).

### **3. E q u a s i s Information System –**

#### **Σύστημα πληροφοριών Ποιοτικής Ναυτιλίας**

Πρόσφατη εξέλιξη στη ροή πληροφοριών και την διανομή στοιχείων, σχετικών με την απόδοση των πλοίων, όπως αυτά τα στοιχεία εξάγονται από τις κατά τόπους Επιθεωρήσεις που διενεργούνται στα πλοία, είναι η Διεθνής συμφωνία της ενεργοποίησης του Συστήματος πληροφοριών με την ονομασία Equasis.

Στοχεύοντας σε μία Ποιοτική Ναυτιλία, η πρωτοβουλία αυτή επιθυμεί να ενισχύσει την υψηλού επιπέδου ποιότητα των υπηρεσιών που όλοι επιθυμούν για τον τομέα της ναυτιλίας. Αυτό φαίνεται πως μπορεί να γίνει εφικτό, όταν «δημεύονται» οι πληροφορίες σχετικά με την απόδοση των πλοίων και των πληρωμάτων τους, στον απαιτητικό τομέα των Επιθεωρήσεων.

Στο παρελθόν, στοιχεία σχετικά με τις «απορρίψεις» των πλοίων, που ήταν το αποτέλεσμα διαπίστωσης αρκετών και σοβαρών μη-συμμορφώσεων, κατά τη διεξαγωγή των επιθεωρήσεων, αποτελούσαν επτασφράγιστα μυστικά και κάτι που ο άμεσα ενδιαφερόμενος επιθυμούσε να «θαφτεί», καθώς έβλαπτε την εικόνα που προσπαθούσε να διαμορφώσει.

Με την εφαρμογή της βάσης δεδομένων SIRE, τα πράγματα άλλαξαν και ένας περιορισμένος αριθμός παραγόντων της ναυτιλίας (Κρατικοί φορείς, Ασφαλιστικοί Οργανισμοί, Ναυλωτές) απέκτησε πρόσβαση στα δεδομένα αυτά, μπορώντας ,έτσι να αξιολογήσει τις προσφερόμενες υπηρεσίες και να δημιουργηθεί μία άτυπη κατάταξη των Εταιριών του χώρου.



Τώρα, με την ενεργοποίηση του Συστήματος πληροφοριών Equasis, όπου προβλέπεται ΕΘΕΛΟΝΤΙΚΗ συμμετοχή των Εταιριών, σε αντίθεση με τη βάση δεδομένων SIRE που ανήκει στο OCIMF, τα δεδομένα που θα συγκεντρωθούν θα είναι εύκολα προσβάσιμα από πολλούς (με την προστασία πάντοτε των προσωπικών και περιουσιακών δεδομένων). Όλοι λοιπόν όσοι εμπλέκονται στις θαλάσσιες μεταφορές, που στο παρελθόν κινούνταν σε «θολά» νερά, σε σχέση με το ποιόν και την Διαχειριστική συμπεριφορά των συνεργατών τους, θα έχουν πλέον ξεκάθαρη εικόνα της απόδοσης του καθενός, του ιστορικού και της εξελικτικής πορείας στο χώρο. Με το σκεπτικό «όλα στο φως», προβλέπεται να επέλθει πρόοδος, απομάκρυνση ανασφαλών πρακτικών εργασίας, απόρριψη των «χαμηλής ποιότητας» πλοίων και Διαχειριστών.

Τα στοιχεία που θα συλλέγονται και θα διανέμονται μέσω του διαδικτύου, με μία σχετική επιτήρηση ως προς τους έχοντες πρόσβαση σε αυτά, θα περιλαμβάνουν θέματα ποιότητας και ασφάλειας των εμπορικών πλοίων. Θα περιλαμβάνονται συγκεντρωτικά και στατιστικά στοιχεία, κριτικές αναφορές, παράρτημα σχολίων, αιτημάτων και παραπόνων, ετήσιες αναφορές και άλλα τεχνικά θέματα. Καθορισμένη διαχειριστική επιτροπή του προγράμματος, θα εποπτεύει την αλήθεια, ακρίβεια και σαφήνεια των στοιχείων που θα παρέχονται. Συντελεστές του προγράμματος είναι οι Ναυτιλιακές αρχές της Γαλλίας, Ιαπωνίας, Νορβηγίας, Ισπανίας, Καναδά, Μεγ. Βρετανίας, Κορέας, καθώς και η Ευρωπαϊκή Επιτροπή Ναυτικής Ασφάλειας EMSA (European Maritime Safety Agency).

Ο βασικός λόγος που έγινε αναφορά στο Σύστημα πληροφοριών Equasis, στα πλαίσια της εργασίας αυτής, είναι γιατί αποτελεί έναν Βασικότατο Δείκτη Απόδοσης που μπορεί

να χρησιμοποιηθεί σαν εργαλείο του προγράμματος **TMSA**. Όπως επίσης και τα λοιπά στοιχεία που θα παρέχονται, καθώς το πρόγραμμα Equasis θα «τρέχει», θα εμπλουτίζεται και θα αναπτύσσεται, θα αποτελέσουν πολλούς επί μέρους Βασικούς Δείκτες Απόδοσης. Όλα αυτά τα προγράμματα, διακατέχονται από μια ανάλογη φιλοσοφία, πως δηλαδή ο υγιής ανταγωνισμός θα φέρει την βελτίωση και την κάθαρση, σε έναν χώρο που μέχρι πρόσφατα θυμόταν και επανέφερε συνήθειες και πρακτικές των πειρατικών καταβολών του.

## 4. ΥΛΟΠΟΙΩΝΤΑΣ ΤΟ ΠΡΟΓΡΑΜΜΑ TMSA

### 4.1 Γενικά

Η υποχρέωση της επίδειξης ευαισθησίας και δράσης, εκ μέρους των Διαχειριστών Δεξαμενοπλοίων σε θέματα ασφάλειας και προστασίας του περιβάλλοντος, που καθιερώθηκε με την εφαρμογή του Διεθνούς Κώδικα **ISM**, ισχυροποιείται μέσω της υλοποίησης του προγράμματος **TMSA**, το οποίο στοχεύει σε μία διαδικασία ποιοτικής αξιολόγησης και συνεχούς βελτίωσης του Συστήματος Διαχείρισης.

Αναλύοντας την απόδοση του τίτλου στα Ελληνικά, **Διαχείριση Δεξαμενόπλοιου και Αυτό-Αξιολόγηση**, συναντάμε την εφαρμογή των όρων : πραγματογνωμοσύνη, εκτίμηση και προσδιορισμός. Η διαδικασία περιλαμβάνει ποιοτική αξιολόγηση, βάσει επιβεβαιωμένων μετρήσεων, που οδηγεί στην εκτίμηση της Διαχειριστικής πορείας του Δεξαμενόπλοιου μέσω σταθμισμένων κριτηρίων, παρέχοντας τη δυνατότητα στον Διαχειριστή να προσδιορίσει και να κατευθυνθεί προς την βελτίωση του συστήματος Διαχείρισης.

Μέσω της παροχής ενός Πρότυπου Πλαισίου Εργασίας, που περιέχει οδηγίες και κατευθυντήριες γραμμές, το πρόγραμμα **TMSA**, δίνει την δυνατότητα δημιουργίας ενός τυπικού Συστήματος Διαχείρισης. Σχετικά με την προσπάθεια εκπλήρωσης της διαδικασίας βελτίωσης του συστήματος Διαχείρισης, παρέχονται παραδείγματα Βασικών Δεικτών Απόδοσης (**KPI's – Key Performance indicators**), ούτως ώστε ο Διαχειριστής να οδηγηθεί σε ακριβέστερες εκτιμήσεις και να λάβει τις σωστές αποφάσεις.

Η διαχείριση του πλοίου υπαγορεύεται από τον Διεθνή Κώδικα **ISM**, τις οδηγίες των φορέων που δραστηριοποιούνται στην αντίστοιχη ναυτιλιακή αγορά (προκειμένου περί μεταφοράς υγρών φορτίων οι **OCIMF**, **INTERTANKO**, **ITOPPF** κλπ) καθώς και από το επίπεδο λειτουργικής απόδοσης που θέτει ο Διαχειριστής. Όλα αυτά περιβάλλουν το υιοθετημένο και εφαρμοζόμενο Σύστημα Ασφαλούς Διαχείρισης, που οφείλει να συμμορφώνεται με τις εκάστοτε απαιτήσεις και να βελτιώνεται διαρκώς.

Η συνεχής βελτίωση βασίζεται στις ακόλουθες συνιστώσες :

- Σχεδιασμός, για τον προσδιορισμό αποτελεσματικής στρατηγικής και την εξασφάλιση της απαραίτητης διαφάνειας στην Πολιτική της Διαχειρίστριας Εταιρίας, τον σκοπό της, την ανάθεση καθηκόντων και τον καθορισμό των επιπέδων ευθύνης.
- Δράση, έτσι ώστε οι αντικειμενικοί στόχοι να επιτευχθούν, με την υλοποίηση των συμφωνηθέντων διαδικασιών.
- Εκτίμηση, όπου όλες οι πληροφορίες σχετικά με τις δράσεις και τα αποτελέσματα, ελέγχονται, αναλύονται και αρχειοθετούνται.
- Βελτίωση, όπου προσδιορίζεται ο επόμενος στόχος και εστιάζεται η προσπάθεια στην περιοχή όπου διαφαίνεται η ανάγκη βελτιστοποίησης.

Για τη βοήθεια και καθοδήγηση προς τους Διαχειριστές, διαμορφώνεται ένας κατάλογος ελέγχου μέσω 12 «αρχών» ή «θεωρημάτων» της πρακτικής Διαχείρισης, που προσδιορίζονται ως τα κωδικά στοιχεία - **Elements** του προγράμματος **TMSA**.

Ο σχεδιασμός των «αρχών» αυτών παρουσιάζει την ακόλουθη μορφή :

- Τίτλος, όπου αναφέρονται οι θεμελιώδεις αρχές της Διαχειριστικής πρακτικής.
- Κύριος Αντικειμενικός Σκοπός (ΑΙΜ), όπου προσδιορίζονται οι στόχοι που πρέπει να επιτευχθούν.
- Παράγραφοι Στήριξης, για κάθε κωδικό στοιχείο του προγράμματος. Πρόκειται για επεξηγήσεις προς τους Διαχειριστές του πλοίου, ως προς την επίτευξη του Κύριου Αντικειμενικού Σκοπού. Αναφέρονται στις ενέργειες που πρέπει να γίνουν καθώς και στις διαδικασίες που θα πρέπει ήδη να συμπεριλαμβάνονται ή αλλιώς να προστεθούν σε κάθε Σύστημα Ασφαλούς Διαχείρισης.

Η παρούσα κατάσταση κάθε εφαρμοζόμενου Συστήματος Ασφαλούς Διαχείρισης, εκτιμάται και καθορίζεται σε σχέση με τους Βασικούς Δείκτες Απόδοσης ή Ικανοποίησης των θεσπισμένων Κύριων Αντικειμενικών Σκοπών.

Πέραν όμως της εκτίμησης, οι Βασικοί Δείκτες αποτελούν και έναν πρακτικό οδηγό για την **επίτευξη της συνεχούς βελτίωσης**.

Ο κάθε Διαχειριστής, καθορίζει το επίπεδο στο οποίο βρίσκεται το Σύστημα Ασφαλούς Διαχείρισης που εφαρμόζεται στο πλοίο του, εκτιμώντας τα αποτελέσματα από την εφαρμογή του ή συνδυάζοντας πρακτικές που χρησιμοποιούνται στην αντίστοιχη ναυτιλιακή αγορά. Βάσει των πληροφοριών που καταχωρούνται στο αρχείο του,

διαμορφώνει αντικειμενική εικόνα της επίτευξης ή μη των προσπαθειών του. Έτσι αναγνωρίζονται τα κενά στον σχεδιασμό και τις διαδικασίες του Συστήματος, καθορίζονται οι περαιτέρω στόχοι και διορθωτικές ενέργειες, για την ολοκλήρωση της διαδικασίας και την μελλοντική βελτίωση.

Αν ο Διαχειριστής «τοποθετήσει τον πήχη πολύ ψηλά», δηλαδή αξιολογήσει πως το Σύστημα του βρίσκεται σε υψηλό επίπεδο, κινδυνεύει να παραβλέψει ελλείψεις ή μη-συμμορφώσεις του Συστήματος και να εκτεθεί σε ενδεχόμενη αστοχία. Αν αξιολογήσει πως το Σύστημα του βρίσκεται σε χαμηλό επίπεδο, ουσιαστικά υποδηλώνει την ανάγκη ανάληψης μεγάλου αριθμού διορθωτικών μέτρων και ενεργειών, που όμως θα οδηγήσουν στην επίτευξη της συνεχούς βελτίωσης. Τελικά, το πρόγραμμα **TMSA** θέτει τον κάθε Διαχειριστή προ των ευθυνών του, ουσιαστικά επιβάλλοντας την αντικειμενικότητα, την ορθότητα των μετρήσεων και της ανάλυσης των στοιχείων καθώς και την καθαρότητα των ενεργειών.

Θεμελιώδες στοιχείο κάθε πορείας εξέλιξης και προόδου, αποτελεί η δέσμευση της Ηγεσίας της Ναυτιλιακής Εταιρίας και η πίστη και αφοσίωση στον σκοπό. Η ηγετική ομάδα, θέτει τους στόχους, προσδιορίζει την στρατηγική, δίνει κατευθυντήριες οδηγίες, εξασφαλίζει την επικοινωνία, εμπνέει εμπιστοσύνη και παρέχει ενίσχυση όπου απαιτηθεί. Μία αποτελεσματική στρατηγική περιλαμβάνει, ξεκάθαρη πολιτική, συγκεκριμένους σκοπούς, διαρκή πρόοδο, καταμερισμό εργασιών. Με ευθυγραμμισμένη δράση όλων των εμπλεκόμενων μερών, με διαγράμματα ευθυνών και οργανογράμματα καθηκόντων του προσωπικού, με την χρήση στατιστικών πινάκων και εξελικτικών απεικονίσεων, επέρχεται η επίτευξη εξειδικευμένων και συλλογικών αποτελεσμάτων.

Εφ' όσον εξασφαλίζονται οι βάσεις και ο σωστός σχεδιασμός κάθε συστήματος, ακολουθεί το κρίσιμο στάδιο της δράσης που συνοψίζεται στην εφαρμογή του σχεδίου. Η μετάδοση των εντολών ενέργειας και η υλοποίηση τους από τα εμπλεκόμενα μέρη, η θέσπιση προτεραιοτήτων, η εκτίμηση των αποτελεσμάτων σε σχέση με τους αντικειμενικούς στόχους, η συμμόρφωση όλων με την σχετική διαδικασία. Το πρόγραμμα **TMSA** περιέχει οδηγίες σχεδιασμένες κατά τέτοιο τρόπο ώστε να βοηθούν τους Διαχειριστές, παρέχοντας τους συνεχώς βελτιωμένα εργαλεία δράσης και τεχνικές. Σε αυτά περιλαμβάνονται διαδικασίες ελέγχου, εκτιμήσεις και τήρηση / αξιολόγηση αρχείου πληροφοριών και επιτευγμάτων.

Δουλειά του Διαχειριστή είναι να αναγνωρίσει τις συγκεκριμένες τεχνικές απαιτήσεις, να συγκρίνει τις διαδικασίες σε αντιστοιχία με τις δικές του μεθόδους χειρισμού και να επινοήσει τον τρόπο με τον οποίο οι διαδικασίες θα αναπτυχθούν κατά προτεραιότητα. Οι υφιστάμενοι θα ενημερωθούν σχετικά με την διαδικασία και θα αποδεχθούν την εφαρμοζόμενη διαχειριστική πρακτική. Όπου χρειάζεται ενεργητική παρέμβαση ή διαπιστώνεται έλλειψη, το ζήτημα μεταφέρεται προς ανάλυση και διευθέτηση, στον επικεφαλής κάθε τομέα. Η αντιμετώπιση αυτών των θεμάτων πρέπει να γίνεται με γνώμονα την βελτίωση επί ευρέως χρονικού περιθωρίου και να μη προτιμώνται εφήμερες και αμφιβόλου αποτελέσματος λύσεις.

Μέσω της υιοθέτησης των κατευθύνσεων που παρέχει το πρόγραμμα **TMSA**, δημιουργείται ένα πλαίσιο εργασίας εσωτερικά του Συστήματος Ασφαλούς Διαχείρισης, παρέχοντας την δυνατότητα συνεχών μετρήσεων και συλλογής πληροφοριών, δημιουργώντας πεδία βελτιώσεων με σκοπό την επίτευξη μακροπρόθεσμων θετικών

αποτελεσμάτων στην γενική δομή και λειτουργία του Συστήματος. Πρόκειται για έναν «ατέρμονα κοχλία» ενεργειών, που διασφαλίζει πως κάθε προσπάθεια βελτίωσης της διαδικασίας, θα είναι σύγχρονη, σύννομη και αναθεωρήσιμη και θα οδηγεί στην μεγιστοποίηση του οφέλους για την ασφάλεια και την προστασία του περιβάλλοντος.

Ο Διαχειριστής του πλοίου, μπορεί να εφαρμόζει ήδη κάποια λειτουργική μέθοδο μέτρησης και εκτίμησης, εντός του Συστήματος Διαχείρισης του. Πιθανότατα, κάποιοι εκ των Βασικών Δεικτών Απόδοσης (**KPI's**), να συμπεριλαμβάνονται στα στοιχεία του Συστήματος του. Προκειμένου περί των υπολοίπων Δεικτών που παρέχονται από το πρόγραμμα **TMSA**, πρέπει να σχεδιαστούν και να εφαρμοστούν κατάλληλες διαδικασίες παρακολούθησης και ελέγχου, που θα προστεθούν και θα τροποποιήσουν το ήδη υπάρχον Σύστημα Ασφαλούς Διαχείρισης.

Ακολούθως, παρατίθεται ένας συστηματικός οδηγός, σχετικός με την διαδικασία των μετρήσεων και των εκτιμήσεων. Πρόκειται για μία μέθοδο, που σαν απώτερο σκοπό έχει την ολοκλήρωση και ικανοποίηση των απαιτήσεων για το κάθε ένα εκ των τεσσάρων επιπέδων ξεχωριστά, περνώντας βαθμιαία από την μία φάση στην επόμενη, αφού έχουν καλυφθεί οι απαιτήσεις της προηγούμενης φάσης. Για την κάθε τέτοια φάση, ξεκάθαρα ορίζονται οι αποδείξεις / τεκμηριώσεις που ικανοποιούν τις ενδεικτικά αναφερόμενες αποδόσεις / βελτιωτικές προσπάθειες.



4.2 Βαθμίδες και Παράγοντες, δια μέσου των οποίων πραγματοποιούνται οι Μετρήσεις / Εκτιμήσεις των Διαδικασιών

- 1) Πρωταρχικό στοιχείο αποτελεί η προσεκτική και σε βάθος ανάγνωση και ανάλυση / κατανόηση των Βασικών Δεικτών Απόδοσης (**KPI's**).
- 2) Κάθε κωδικό στοιχείο του προγράμματος **TMSA** περιέχει Βασικούς Δείκτες Απόδοσης, που χρησιμεύουν στον Διαχειριστή, για την αποτίμηση της απόδοσης και τον καθορισμό του επιπέδου όπου βρίσκεται το Σύστημα του.
- 3) Κάθε κωδικό στοιχείο που αναφέρεται στις εκάστοτε Δραστηριότητες, εκτείνεται σε τέσσερις βαθμίδες. Η κάθε διαδικασία του Συστήματος Διαχείρισης, επεξεργάζεται δια μέσου κάθε βαθμίδας και εξάγεται η Εκτίμηση / Προσδιορισμός της κατάστασης λειτουργίας του Συστήματος. Οποιοδήποτε εύρημα ή ανάδειξη αστοχίας - ανακολουθίας, εάν υπάρχει, θα υποδηλώσει τι χρειάζεται να πραγματοποιηθεί, για να προσεγγίσουμε και να περάσουμε στην επόμενη βαθμίδα.
- 4) Οι οποιεσδήποτε οδηγίες και κατευθύνσεις, βάσει του προγράμματος **TMSA**, που παρέχονται για υλοποίηση, θα πρέπει να ανατίθενται σε υπεύθυνο και εξειδικευμένο προσωπικό. Τεκμηρίωση απαιτείται (απόδειξη / επαλήθευση), σχετικά με το ποια ομάδα – εντός της Εταιρίας – είναι αρμόδια για την εφαρμογή, καθώς και παρακολούθηση για την διακρίβωση της ανάληψης ενεργειών και της διαπίστωσης αποδεκτής προόδου. Το προσωπικό που έχει τη ευθύνη της κάθε δραστηριότητας, πρέπει να ελέγχεται ως προς τον βαθμό συνέπειας σχετικά με

- την υλοποίηση της, καθώς και να επιβεβαιώνεται πως ο κάθε ένας έχει καθαρή και επακριβή κατανόηση της παρούσας κατάστασης.
- 5) Έντυπα καταγραφής των εκτιμήσεων / προσδιορισμού της κατάστασης λειτουργίας του Συστήματος, συλλέγονται και αρχειοθετούνται από τον Διαχειριστή, για να αποτελέσουν την βάση δεδομένων, μέσω της οποίας επιβεβαιώνεται η πρόοδος και η εξέλιξη του Συστήματος Ασφαλούς Διαχείρισης.
  - 6) Η επίτευξη των επί μέρους στόχων, δηλαδή της κατάκτησης μίας ανώτερης βαθμίδας στην βελτιωτική κλίμακα, έγκειται στην συγκέντρωση των Βασικών Δεικτών Απόδοσης (KPI's). Όπως έχει προαναφερθεί, βασική προϋπόθεση είναι η ακρίβεια των στοιχείων και η μονιμότητα στην υλοποίηση των διαδικασιών.
  - 7) Υπερβολή στην αποτίμηση θα οδηγήσει σε ανακριβή αξιολόγηση ως προς το επίπεδο κατάταξης του Συστήματος, ενώ μη επαληθευμένα ή ατεκμηρίωτα στοιχεία, δεν θα δώσουν σαφή εικόνα της προόδου.
  - 8) Η επίτευξη προόδου του Συστήματος, αντιπαρατίθεται από τον Διαχειριστή, με τα εκτιμώμενα και αναμενόμενα αποτελέσματα που είχαν τεθεί κατά την διαδικασία καθορισμού των στόχων και σχετικά διαγράμματα ροής αναδεικνύουν την διατήρηση ενός συνεχώς εξελισσόμενου περιβάλλοντος.
  - 9) Εφ' όσον η προαναφερόμενη αντιπαράθεση θεσπισμένων στόχων και αποτελεσμάτων δεν εκπληρώνει τις απαιτήσεις του αρχικού σχεδιασμού, επανερχόμαστε στο στάδιο 7) της παρατιθέμενης μεθόδου, για επαλήθευση, έλεγχο ή αναζήτηση νέων στοιχείων.

4.3 Αυτό-αξιολόγηση Διαχειρίστριας Ναυτιλιακής Εταιρίας Δεξαμενοπλοίων, που εφαρμόζει Σύστημα Ασφαλούς Διαχείρισης, βάσει των δεικτών του προγράμματος TMSA.

Τα 12 κωδικά στοιχεία - **Elements** του προγράμματος είναι :

1. Διαχείριση, Διοίκηση και Υπευθυνότητα

**1 A** - δια μέσου ενός Ισχυρού Ηγετικού Προφίλ, η Διαχείριση προωθεί τις Αρχές της Υψηλού Επιπέδου Ασφάλειας και Προστασίας του Περιβάλλοντος σε όλα τα Επίπεδα της Οργάνωσης.

**1 B** - η Διαχείριση αποδέχεται την Ευθύνη για την Ανάπτυξη και Εφαρμογή ενός Δυναμικού Συστήματος Ασφαλούς Διαχείρισης, Υλοποιώντας την Πολιτική της Εταιρίας και παρέχοντας Υψηλού Επιπέδου Ασφάλεια και Προστασία του Περιβάλλοντος. Τα Αποδεικτικά Στοιχεία της Εφαρμογής (Τεκμηρίωση), μπορούν να τηρούνται σε Έντυπη ή Ηλεκτρονική μορφή.

2. Πρόσληψη και Διαχείριση Υπαλλήλων για την Στελέχωση του Γραφείου

**2 A** - Διασφαλίζεται πως η Υποστήριξη του Στόλου της Εταιρίας, εκτελείται από Εξειδικευμένους Υπαλλήλους στο Γραφείο, που έχουν τη Δυνατότητα να «φέρουν εις πέρας» όλο το φάσμα των Ευθυνών και των Καθηκόντων τους.

3. Ναυτολόγηση και Διαχείριση Πληρωμάτων για την Στελέχωση των Πλοίων

**3 A** – Διασφαλίζεται πως όλα τα Πλοία του Στόλου είναι Στελεχωμένα με Ικανά Πληρώματα, που έχουν Πλήρως Κατανοήσει τα Καθήκοντα και τις Υποχρεώσεις τους και έχουν την Δυνατότητα να Εργάζονται σαν ένα Οργανωμένο Σύνολο.

**3 B** – δια μέσου ενός Ισχυρού Ηγετικού Προφίλ, η Διαχείριση προωθεί τις Αρχές της Υψηλού Επιπέδου Ασφάλειας και Προστασίας του Περιβάλλοντος σε όλα τα Επίπεδα της Οργάνωσης.

#### 4. Σταθερότητα και Πρότυπα Συντήρησης

**4 A** – κάθε Πλοίο του Στόλου διαθέτει ένα Επίσημο σύστημα Συντήρησης και Αναφορών Δυσλειτουργιών και ένα Επαρκές Αρχείο Ανταλλακτικών.

**4 B (Υψίστης Σημασίας Εξοπλισμός)** – ο Έλεγχος και η Προγραμματισμένη Συντήρηση του Υψίστης Σημασίας Εξοπλισμού και των Συστημάτων του Πλοίου, Εκτελούνται βάσει Καθορισμένου Προγράμματος.

**4 C (Διεκπεραίωση Εργασιών)** – η Διαχείριση Καταγράφει τον αριθμό των Εργασιών Συντήρησης που Παραμένουν σε Εκκρεμότητα, για να Εξασφαλιστεί πως αυτές Διεκπεραιώνονται Σύντομα και Αποτελεσματικά.

#### 5. Ασφάλεια στη Ναυσιπλοΐα

**5 A** – Εγκατάσταση και συνεχής Εφαρμογή διαδικασιών Ναυσιπλοΐας, Εκτέλεσης Βάρδιας στην Γέφυρα του Πλοίου και Εκπαίδευσης Αξιωματικών Καταστρώματος Πλοίου, σε Αντιστοιχία με τις Ισχύουσες Απαιτήσεις και την Πολιτική της Εταιρίας.

6. Φορτίο, Έρμα και Εργασίες Πρόσδεσης Πλοίων

**6 A** – η Διαχείριση πρέπει να Εγκαταστήσει, Παρακολουθεί και Διατηρεί σε Λειτουργία, όλες τις Διαδικασίες που σχετίζονται με τις Εργασίες Φορτίου και Έρματος του Πλοίου, καθώς και του Σχετικού Εξοπλισμού και να Εξασφαλίζει πως οι Διαδικασίες αυτές Εφαρμόζονται Αποτελεσματικά.

**6 B** – η Διαχείριση πρέπει να Εγκαταστήσει, Παρακολουθεί και Διατηρεί όλες τις Διαδικασίες Σχεδιασμού και Λειτουργίας και να Εξασφαλίζει πως ο Εξοπλισμός και οι Ενέργειες Πρόσδεσης του Πλοίου Διαχειρίζονται με Αποδοτικό τρόπο.

7. Διαχείριση Μεταβολών

**7 A** – μια Διαδικασία Διαχειριστικών Μεταβολών πρέπει να Εφαρμόζεται στο Γραφείο της Εταιρίας και να Υλοποιείται Αποτελεσματικά, με Στόχο την μείωση των Επιχειρησιακών Κινδύνων.

**7 B** – μια Διαδικασία Διαχειριστικών Μεταβολών πρέπει να Εφαρμόζεται στα Πλοία της Εταιρίας, με Στόχο την Υποστήριξη του Προσωπικού στην Επισήμανση των Εργασιακών Κινδύνων και την μείωση τους.

8. Ανάλυση και Διερεύνηση Περιστατικών

**8 A** – Περιεκτικές Διαδικασίες Προετοιμάζονται και εφαρμόζονται, για την Διαχείριση των Περιστατικών.

**8 B** – η Διαχείριση Παρέχει Εκπαίδευση τόσο για το Προσωπικό των Πλοίων όσο και για τα Στελέχη του Γραφείου, επί των Μεθόδων Διερεύνησης Περιστατικών.

9. Διαχείριση της Ασφάλειας

**9 A (Επίβλεψη από πλευράς Γραφείου)** – η Διαχείριση διαθέτει ένα Ολοκληρωμένο Σύστημα Προληπτικής Προσέγγισης ως προς την Επισήμανση των Εργασιακών Κινδύνων και την από πλευράς Γραφείου Διευθέτηση των Επιχειρησιακών Κινδύνων.

**9 B (Επίβλεψη από πλευράς Πλοίου)** - η Διαχείριση διαθέτει ένα Ολοκληρωμένο Σύστημα Προληπτικής Προσέγγισης ως προς την Επισήμανση των Εργασιακών Κινδύνων και την από πλευράς Πλοίου Διευθέτηση των Κινδύνων από την Εργασία επάνω στα Πλοία.

10. Περιβαλλοντική Διαχείριση

**10 A** – η Εταιρία Υλοποιεί ένα Σχέδιο σχετικά με την Συστηματική Επισήμανση και Αξιολόγηση όλων των Πηγών (Αιτίων), που μπορούν να Προκαλέσουν Θαλάσσια και Ατμοσφαιρική Ρύπανση.

**10 B** – Ολοκληρωμένοι Περιβαλλοντικοί Σχεδιασμοί και Ενέργειες Εφαρμόζονται στα Πλοία της Εταιρίας.

11. Προετοιμασία – Ετοιμότητα Αντιμετώπισης Περιστατικών Έκτακτης Ανάγκης και Σχεδιασμός Αντιμετώπισης «Έκτακτων Περιπτώσεων»

**11 A** – Βελτίωση και Έλεγχος της Ικανότητας των Διαχειριστών των Πλοίων, σχετικά με την Ανταπόκριση και την Διευθέτηση Περιστατικών.

**11 B** – Βελτίωση και Έλεγχος της Ικανότητας των Διαχειριστών των Πλοίων, σχετικά με την Ανταπόκριση επί Περιστατικών μέσω της Υλοποίησης ενός Τακτικού και Ουσιαστικού Προγράμματος Εκτέλεσης Γυμνασίων και Ασκήσεων.

#### 12. Εκτίμηση, Ανάλυση και Βελτίωση

**12 A** – τα Διαχειριστικά Στελέχη του Γραφείου υλοποιούν μία Δομημένη Διαδικασία Εκτέλεσης Επιθεωρήσεων επί των Πλοίων, για την Παρακολούθηση της Κατάστασης του Στόλου. Λεπτομερείς Αναφορές και Σχέδια Αποκατάστασης Εκκρεμοτήτων τηρούνται από το Γραφείο. Η Διαδικασία πρέπει να περιλαμβάνει την Επισήμανση της Τάσης Εμφάνισης Μη-Συμμορφώσεων και την Διαμόρφωση των Κατάλληλων Συνθηκών για την Έγκαιρη Αποκατάστασή τους, όταν Ανιχνεύονται.

**12 B** – η Εταιρία Εφαρμόζει μία Δομημένη Διαδικασία η οποία δίδει την δυνατότητα στα Διαχειριστικά Στελέχη του Γραφείου, της Διενέργειας Προγραμματισμένων και Συστηματικών Ελέγχων, σε όλες τις περιουσιακές μονάδες της Εταιρίας, σε Στεριά και Θάλασσα.

Μέθοδος Αυτό-αξιολόγησης : ο Διαχειριστής Δεξαμενοπλοίων, που ήδη εφαρμόζει ένα πρόγραμμα Ασφαλούς Διαχείρισης βάσει του Διεθνούς Κώδικα Ασφαλούς Διαχείρισης (ISM Code), έχει να συγκρίνει δύο στοιχεία.

Από την μια πλευρά υπάρχει το τρέχον Σύστημα Ασφαλούς Διαχείρισης (SMS – Safety Management System) και από την άλλη υπάρχει το προτεινόμενο από τον

OCIMF Πρόγραμμα **TMSA**, με τους Βασικούς Δείκτες Απόδοσης και την Καθοδηγητική Πρακτική Εφαρμογής.

Αντιστοιχείται λοιπόν το τρέχον Σύστημα έναντι του προτεινόμενου και εξάγεται η Αξιολογητική βαθμολογία. Αυτή αποτελεί το εναρκτήριο σημείο της μετέπειτα διαχειριστικής πορείας και της μορφοποίησης / αναθεώρησης ορισμένων τομέων του τρέχοντος συστήματος, ούτως ώστε να επιτευχθεί βελτίωση των διαδικασιών και να προσεγγιστεί σταδιακά το βέλτιστο πρόγραμμα **TMSA**.

Οι αναθεωρήσεις ή οι υλοποιήσεις νέων Διαχειριστικών πρακτικών, εφ' όσον διαπιστωθούν αποκλίσεις και υστερήσεις μέσω της Αυτό-αξιολόγησης, ακολουθούν την πορεία της βελτίωσης κατά προτεραιότητα. Αυτό είναι και το σημείο που θα διαφοροποιήσει την εφαρμογή του Προγράμματος **TMSA**, καθώς ο κάθε Διαχειριστής καλείται να «αξιολογήσει εαυτόν», με όλα τα υποκειμενικά κριτήρια που αυτό συνεπάγεται.

Όμως – για να χρησιμοποιήσουμε και τη φράση από Γνωστό τηλεοπτικό και ραδιοφωνικό μήνυμα – «το αποτέλεσμα μετράει». Και στην παρούσα περίπτωση, το αποτέλεσμα εξάγεται από τη θέση που καταλαμβάνουν τα πλοία της κάθε Διαχειρίστριας Εταιρίας δεξαμενοπλοίων, σχετικά με την κατάταξη που τοποθετούνται στον Κατάλογο αποτελεσμάτων από τις Επιθεωρήσεις Αρχών Λιμένων, Port State Control Inspection Summaries Through EQUASIS System, που βασίζεται στα Ετήσια στατιστικά στοιχεία Paris MOU Annual Report.



Επεξήγηση ακολούθων πινάκων :

- Αριθμός και Τίτλος κάθε Στοιχείου,
- Σκοπός Εφαρμογής.
- Στήλη 1 : Στάδια εφαρμογής,
- Στήλη 2 : Βασικοί Δείκτες Απόδοσης,
- Στήλη 3 : Καθοδηγητική Πρακτική Εφαρμογής, για Βέλτιστη Απόδοση,
- Στήλη 4 : Αναφορά στα αντίστοιχα κεφάλαια του Κώδικα ISM,
- Στήλη 5 : Αναφορά στα αντίστοιχα κεφάλαια του Προτύπου ISO 9001,
- Στήλη 6 : Αναφορά στα αντίστοιχα κεφάλαια του Προτύπου ISO 14001,
- Στήλη 7 : Αναφορά στα αντίστοιχα κεφάλαια του SMS της Εταιρίας,
- Στήλη 8 : Παρατηρήσεις του Διαχειριστή σχετικά με την Αυτό-αξιολόγηση του συστήματος που ήδη εφαρμόζεται από την Εταιρία,
- Στήλη 9 : Βαθμολογία αντιστοίχισης του συστήματος που ήδη εφαρμόζεται από την Εταιρία με τους Βασικούς Δείκτες Απόδοσης και την Καθοδηγητική Πρακτική Εφαρμογής του Προγράμματος **TMSA**,
- Μέσος Όρος Βαθμολογίας.

## 1A MANAGEMENT, LEADERSHIP AND ACCOUNTABILITY

**AIM** Through strong leadership, management promotes the concepts of safety and environmental excellence at all levels in an organisation.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	Management commitment is clearly defined in documentation that includes <b>mission</b> statements, policies and procedures.	Mission statements contain the high level and long-term goals and aspirations of the company, such as <b>zero incidents and zero spills</b> to sea. The company aims to reach these goals through continuous improvement.	2.1, 9.1	5.3, 8.3	4.2, 4.5.3	QP01 - EMS manual	Statement of zero incidents/zero spills to be included in the policies.	90
1,2	Senior management demonstrates a clear <b>commitment</b> to implementing the safety- management system.	Senior managers demonstrate commitment by <b>conducting management reviews, reviewing non conformance summaries and assessing progress towards the audit plan</b> . The company keeps <b>records</b> that indicate the extent of management involvement in these activities.	2.2, 5.1.1, 5.1.2, 5.1.5, 12	5.6, 8.5.1	4.2, 4.6	QP01 - 1.6 Form 100	To add the review of non-conformance summaries	90
2,1	The concepts of <b>safety and environmental excellence</b> are fully <b>understood and supported</b> by ship based and shore-based management teams.	The company establishes communication links to encourage information sharing. <b>Best practices are promoted across the fleet</b> . The company records lessons learnt and then delivers this information to the entire fleet. When required, managers <b>track the recommendations</b> to ensure that all necessary changes have been made.	1.4.3, 4, 6.7, 9.1, 9.2	5.5.2, 5.5.3	4.4.1, 4.4.3	Form 141	Lessons learnt from vetting etc to be sent on regular basis (i.e quarterly)	60
2,2	All company personnel can describe what safety and environmental excellence mean in practice.	Everyone within the organisation understands the concept of safe operations. This concept is promoted through leadership and sound management practices. Managers <b>measure staff understanding</b> of the concept through activities such as <b>ship visits, informal meetings and seminars</b> .	4, 5.1.2, 6.5	5.5.2, 6.2.2	4.4.1, 4.4.2	Forms 066, 005, 009	Environmental awareness to be included in appraisal forms. Appraisal of master/chief engineer during supt visits to be included in procedure. Evaluation of seminars ashore to be carried out.	90
2,3	Ship-to-shore communication links and procedures are used to <b>capture best practices and near-miss</b> lessons learnt.	Management strives to improve performance in the areas of safety and environmental performance at all levels throughout the company.	4, 5.1.5, 6.3, 9.1, 12.1, 12.2, 12.5	5.5.2, 5.6	4.4.1, 4.6	Form 141	In " Suggestion for improvement" to add "Best practises"	90

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

3,1	Shore management sets standards and performs assessments.	Typical measures ( <b>KPIs</b> ) include, but are not limited to, <b>pollution, number of audit findings resolved, number of near-miss reports and number of best practices identified.</b>	5.1.5, 12.2	5.4.1, 5.6	4.3.3, 4.6	Form 348	In audit statistics to add KPI for time needed for close out.	50
3,2	The <b>steps</b> required to achieve safety and environmental excellence are clearly defined.	Key steps are clearly defined and documented within the management system. There is a <b>clear time frame and targets</b> are defined for <b>each stage.</b>	12.2, 12.5, 12.6	5.4.1, 5.6	4.3.3, 4.6		Safety targets may be developed such as internal/ external non conformities, PSC-Vetting-Class deficiencies, PMS overdue items	50
3,3	Ship-based and shore-based management teams <b>promote</b> the concepts of safety and environmental excellence.	<b>Leadership</b> is visibly <b>demonstrated at every level</b> , from the most senior manager down to line supervisors. Strong, effective and visible leadership is needed to establish and sustain long-term improvements towards safety and environmental excellence.	12.2, 12.5, 12.6	5,6	4,6		A " Code of conduct" may be developed for shore staff and senior shipboard staff	90
4,1	Progress towards safety and environmental excellence <b>targets and objectives is discussed, at least quarterly</b> , at management meetings on board and ashore.	Progress reports are discussed at <b>quarterly senior management meetings and on board vessels</b> . Where progress is less than planned, staff intervene to realign performance with targets and objectives.		5.4.1, 5.6	4.3.3, 4.6	Form 069	Management meetings should be done quarterly. Agenda to include objectives and targets. Same to be included in shipboard safety meetings agenda	50
4,2	Performance targets are monitored against <b>KPIs</b> .	The company has formal performance targets placed within its business objectives. <b>Performance targets</b> are discussed at <b>regular</b> meetings involving shore management. Staff monitor status regularly using KPIs and report their findings to senior management.		5.4.1	4.3.3		Safety targets may be developed such as internal/external non conformities, PSC-Vetting-Class deficiencies, PMS overdue items (see 3.2)	50
4,3	The entire ship and shore workforce understands and openly <b>supports</b> the concepts of safety and environmental excellence.	Managers and supervisors give clear directions and, by their behaviour, demonstrate commitment to safety and environmental excellence. Evidence should be available of positive reinforcement being applied through the company's established <b>rewards</b> system.		6.2.2	4.4.2		Vetting, Re-employment, seniority and performance bonus are given. Shore staff covered by private insurance. Other rewards may be included i.e the best 3 ships	60

							without accidents.	
<b>Aver. Score</b>								<b>70</b>

**1B MANAGEMENT, LEADERSHIP AND ACCOUNTABILITY**

**AIM** Management accepts responsibility for developing and maintaining a dynamic (documented in hardcopy or electronic format) safety management system to implement policy and deliver safety and environmental excellence.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	A formal <b>document control system</b> ensures that the current management-system documentation is available for use at all work locations.	The company operates a document control system to ensure that <b>ONLY</b> the current management-system documentation is available on vessels and in company offices.	11.1, 11.2	4.2.3	4.4.5		Covered by Company's procedures.	100
1,2	Management ensures that stated policies cover all the activities undertaken by the company.	The company has a process for coordinating and correlating safety-management system manual revisions. Senior management is involved in the approval process for such revisions/instructions, and procedures are <b>available wherever work is carried out. All staff and contractors</b> have access to these important documents.	11.1, 11.2, 11.3, 12.6	4.2.3, 8.5.2	4.4.5, 4.5.3		Copies to manning agents are given	100
1,3	Procedures and instructions are available on board all vessels and at key office locations.	The company can demonstrate that each of its policies is implemented in practice through the application of formal procedures and instructions.	11.2.1 , 11.3	4.2.3	4.4.5		Covered by Company's procedures.	100
1,4	Policies are implemented through processes described in formal procedures and instructions.	<b>Policies</b> are established to <b>cover health, safety, environment and quality as a minimum</b> . These policies cover the scope of all the activities undertaken by the company. The company regularly <b>reviews</b> these policies through <b>shipboard safety meetings, management reviews, officer forums and other formal meetings</b> .	2.1, 5.1.5, 7, 12.2	5.3, 5.6	4.2, 4.6	1.6	"Policies review" to be added in the management review agenda	90

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

2,1	Instructions and procedures are written in plain language and contain sufficient detail to ensure that tasks can be completed correctly and consistently.	The company ensures that instructions and procedures are presented in a clear format. Actions are arranged in sequential order and in a way that makes it easy to identify each step.	5.1.3, 6.6, 7	6.2.2	4.4.2		An alphabetic words lists with references to important items of Company's SMS may be included	100
2,2	Periodic meetings that review or amend current procedures or propose new ones take place on a <b>regular</b> and <b>timely</b> basis, and are formally recorded.	Formal records include the <b>meeting minutes, the meeting agenda</b> , examples of <b>procedures and instructions</b> that have been <b>updated</b> as a result of meetings, and any other supporting information. The review <b>frequency</b> may vary, depending on fleet structure, ship type and fleet size.	5.1.5, 12.2	5,6	4,6	1,6	" Changes/ revisions to documents " to be included in the management review agenda.	90
3,1	The safety-management system promotes <b>proactive feedback</b> .	Feedback should be provided <b>on incidents, ship inspections, fleet performance, serious near misses, lessons learnt, etc.</b>	9.2, 10.2, 12.3, 12.5, 12.6	8.5.3	4.5.3		A new file may be developed consistent to all vessels in the fleet.	80
3,2	Instructions and procedures covering shorebased and shipbased operations are developed <b>in consultation with those who will have to implement them</b> .	The workforce is involved in developing instructions and procedures because this involvement delivers effective guidelines that are more readily accepted.	7	5.5.3	4.4.3		Changes in documents may be sent randomly to selected senior officers for their comments.	0
3,3	<b>Managers</b> are clearly held <b>accountable</b> for achieving the objectives established for them.	<b>Roles, responsibilities and accountabilities</b> are defined within the management system. When organisational changes occur, those responsible for supervising or managing the function(s) undergoing change are also responsible for clear and explicit reassignment of this accountability.	3.2, 4, 5.1	5.5.1, 5.5.2	4.4.1		An accountability matrix to be developed	70
4,1	<b>Benchmarking</b> is used to identify further improvements to the safety-management system.	The company benchmarks its safety, environmental and management practices <b>against other organisations and industry information sources</b> . Benchmarking is an integral part of the improvement process, and the company aims to match ever-improving best practice.	1.2.3, 9.1, 12.2	5.6, 8.5.1, 8.5.3	4.5.3, 4.6		May be done using web site "www.equasis.org" for comparison of PSC deficiencies with other competitors.	70

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

4.2	<b>Measurements</b> are carried out regularly according to a comprehensive verification plan.	The company has a plan, approved by senior management to identify the checks and measures that ensure the safety management system is working effectively across all areas of the business on an <b>annual</b> basis. Progress against the plan, assessed by audit and inspection, should be discussed at <b>quarterly</b> senior management meetings.	4, 5.1.5, 12.1, 12.2	5.6, 8.4	4.5.1, 4.6		Plan with KPI's should be discussed quarterly.	20
4.3	Senior managers have a mechanism in place to <b>verify the effectiveness</b> of key areas of the safety management system.	Managers are responsible for ensuring safe and correct working conditions <b>on board and in the offices</b> . This is a key responsibility and cannot be delegated to others. Managers and superintendents systematically monitor the effectiveness of verification and inspection activities within their groups. They also <b>initiate and track</b> necessary improvements to completion.	5.1.5, 9.1, 10.2, 12.1, 12.2	5.6, 7.4.3, 8.3,	4.4.6, 4.5.3, 4.6		An Office safety manual may be developed.	80
<b>Aver. Score</b>								<b>67</b>

**2A RECRUITMENT AND MANAGEMENT OF SHORE-BASED PERSONNEL**

**AIM** Ensure that the fleet is supported by key staff who are competent to carry out the full range of responsibilities and tasks.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1.1	There is a <b>formal induction process</b> in place for newly recruited shore-based staff.	The company has a written plan for formal entry of new recruits. This is documented to show that the inductee has received the appropriate training and familiarisation necessary to undertake their new responsibilities and accountabilities. <b>Induction covers all policies including safety, health, environment, quality, business ethics and cultural awareness.</b>	6,5	6.2.2		QP06 & Form 082	In relevant form to include safety, health, environment, quality policies, business ethics and cultural awareness.	80
1.2	The average <b>job retention rate</b> for <b>key staff</b> (such as superintendents) is greater than <b>70%</b> over a <b>two-year</b> period.		NA	5.4.1	4.3.3	QP 06	To add that measurements are carried out and to set KPI over 70 %	90

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

1,3	The <b>pre-recruitment process</b> should include checks that applicants have the appropriate qualifications and experience.	The company ensures that information supplied by recruits ( <b>career summary, resume and interview records</b> ) indicates that they have the appropriate skills to fill the position.	3.2, 3.3, 6.5	5.5.1, 6.2.2	4.4.1, 4.4.2	Forms 033 & 067	Covered by Company's procedures.	100
1,4	The <b>recruitment process</b> includes verification that the qualifications of new recruits are <b>genuine</b> .	This process includes <b>checking certificates with the issuing authorities</b> and <b>contacting former employers</b> to verify experience if referred to by the new employee.	3.2, 3.3, 6.5	5.5.1, 6.2.2	4.4.1, 4.4.2	QP 06	Verification of qualifications to be included in the procedure.	80
2,1	A <b>formal staff appraisal system</b> ensures that key staff members undergo an assessment <b>at least annually</b> .	The company's staff appraisal system includes reviews of staff abilities and identifies any development requirements, including <b>additional training needs</b> .	6,5	5.5.1, 6.2.2	4.4.1, 4.4.2	QP 06 & form 066	Covered by Company's procedures.	100
2,2	The recruitment process <b>identifies any training needed</b> to ensure that personnel have the required skills and capabilities.		6,5	6.2.2	4.4.2	Form 033	Form to include training needs.	90
2,3	The company maintains up to-date <b>records of qualifications, experience and training courses</b> attended for all shorebased staff.		6,5	6.2.2	4.4.2	Form 068a	Columns with ongoing experience eg Shipboard inspections-audits, drydocks, newbuildings to be included.	80
3,1	<b>Key staff</b> retain core technical skills through new training, <b>refresher</b> training and participation in <b>industry forums, seminars and conferences</b> .		6,5	5.4.1, 6.2.2	4.3.3, 4.4.2	Forms 017a & 068a	Covered by Company's procedures.	100
3,2	The company provides <b>adequate resources</b> to implement the safety management system effectively.	<b>Office resource levels</b> are reviewed during an <b>annual management review</b> meeting.	3.3, 4, 12.2	5.6, 6.2.1	4.4.2, 4.6	1,6	Should be included in management review	90
4,1	The company encourages and supports personnel taking <b>higher education</b> courses to improve their value to the company and their possibilities for <b>promotion</b> within the organisation.		NA	5.4.1	4.3.3		To be considered.	0
4,2	Any issues highlighted in <b>appraisal reviews</b> are given priority and resolved.		NA	5.4.1	4.3.3		Covered by Company's procedures.	100
4,3	Senior on-board personnel are <b>rotated</b> through office assignments.	Rotation improves on-board understanding of the wider aspects within the shipping business and improves understanding of marine operations for non-mariner shore personnel.	NA	5.4.1	4.3.3		Not applicable, since adequate marine background is available in shore staff.	na

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

4,4	The company promotes appropriate <b>interpersonal</b> skills training.	Courses include subjects <b>such as team building, presentational skills, diversity, brainstorming and negotiating skills.</b>	6,5	5.4.1	4.3.3		To consider attendance in these courses	0
<b>Aver. Score</b>								<b>75</b>

**3A RECRUITMENT AND MANAGEMENT OF SHIPS' PERSONNEL**

**AIM** Ensure that all ships in the fleet have competent crew who fully understand their roles and responsibilities and who are capable of working as a team.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	A process is in place to screen new crew members for job competence.	The company operates a documented interview process, with <b>rank-specific requirements</b> . Where manning agencies are used, the operator is involved in the recruitment process.	6.1, 6.2	6.2.2	4.4.2	QP 5.13, 5.14 & form 363	Minimum criteria for selection of personnel to be clearly described.	90
1,2	<b>Medical checks</b> are conducted as a part of the selection and recruitment process.	<b>Company-approved doctors</b> who are fully aware of the flag-state maritime requirements conduct medical checks. In the case of operators who manage <b>chemical</b> vessels, blood accumulations should be checked. The <b>frequency</b> of medical checks is clearly defined and complied with across the company.	6.1, 6.2	6.2.2	4.4.2	QP 5.33	Medical checks frequency to be added in the procedure	90
1,3	A formal <b>drug and alcohol policy</b> is implemented and a system is in place to monitor it on a regular basis.	The company complies with OCIMF guidelines.	1.2.3, 2, 6.2	5.4.1	4.3.3		Covered by Company's procedures.	100
1,4	Management has a defined system of <b>selection, recruitment and promotion</b> procedures.	The company checks that certification complies with the issuing authority and STCW. The company <b>authenticates</b> certificates and maintains <b>records</b> of these checks. Issue dates for certificates and endorsements must correlate to previous experience and vessel type.	6,2	6.2.2	4.4.2	QP 5.12, 5.13	Authentication is done using IMO web site	100
2,1	An <b>appraisal process</b> is in place for all sea staff.	Reports include safety and environmental awareness, ability and personal effort. Appraisals must be conducted <b>at the end of every contract or six-month period as a minimum</b> . Seafarers are allowed to review appraisal reports and have their comments recorded.	6,5	6.2.2	4.4.2	1.3.15 & Form 005	Environmental awareness to be added	90



## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

2,2	The ship operator ensures that the manning agents conduct crew quality checks <b>at least annually</b> .	Ship operators ensure that their procedures are complied with by the manning agency. This includes competency and certification checks, <b>appraisal frequency and monitoring</b> any tour of duty overrun.	6,2	6.2.2	4.4.2		Not applicable, since same is carried out by the Company	na
2,3	The company has an <b>extended</b> recruitment and interview process for <b>masters and chief engineers</b> .	This process is conducted by shore management and includes introduction to company philosophy and structure, and an outline of expectations and defined responsibilities. Final interviews before recruitment, are conducted at <b>head office</b> and are fully documented.	6,1	6.2.2	4.4.2	Form 014a	Covered by Company's procedures.	100
2,4	Selection, recruitment and <b>promotion</b> procedures ensure appropriate staff placement with <b>documented</b> appointment records.	Procedures cover a range of factors including <b>previous experience, age limits, ability to communicate in a common language and medical certification</b> . The company defines and documents who has responsibility for all aspects of manning.	3.2, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7	5.5.1, 6.2.2	4.4.1, 4.4.2	Form 084	Covered by Company's procedures.	100
2,5	The company promotes hygiene awareness within the safety management system.	The company actively promotes high standards of housekeeping and hygiene, particularly in <b>food storage and preparation</b> .	10,1	7.2.2	4.4.6	Form 096	Procedure to be expanded for food storage and preparation (see UK MCA guidelines)	60
3,1	The company operates an <b>appraisal</b> process for <b>masters and chief engineers</b> .	Shore management assesses <b>masters and chief engineers during ship visits or at head office</b> . The assessment should include <b>training</b> and development requirements and objectives, and should be <b>fully documented</b> .	6,5	6.2.2	4.4.2	Form 003	Covered by Company's procedures.	100
3,2	The company has a documented <b>disciplinary process</b> .	The company philosophy includes <b>re-education</b> and development of staff by <b>ongoing training</b> , particularly for those who have been involved in operational incidents.	NA	NA	NA	QP 09	Procedure to include reeducation for personnel involved in incidents	50

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

3,3	Manning agencies used by the company are <b>audited annually</b> to ensure their practices meet the ship operator's selection and recruitment procedures.	Applicable in cases where <b>manning is managed by an agent. Manning agents are audited at their premises at least annually</b> in line with ISM internal audit requirements. An <b>audit checklist</b> is prepared that covers items such as <b>certification and competency checks, operator training requirements, appraisal results and recruitment processes. Records</b> of such audits are maintained and include details of findings and/or corrective actions assigned to each manning agent.	6.2, 12.1	7.2.2, 7.4.3, 8.2.2	4.5.5	QP 5.9.1 & forms 049, 021	Checklist to be included in the procedure.	90
3,4	Ship operators conduct an <b>annual</b> review of the crew selection and recruitment process to ensure that it complies with their policies and procedures.	Applicable in cases where <b>manning is managed by the ship operator</b> . Documented evidence of this review is available at the ship operator's head office. The review is based around a <b>standard worksheet</b> following the ISM nonconformity reporting system.	12,2	5,6	4,6		Internal audit checklist to be included in the Company's Forms	90
3,5	The company implements <b>health awareness campaigns</b> .	Practical support for health awareness may include advice on working under extremes of temperature or humidity or other adverse environmental conditions. Catering and other staff facilities encourage a <b>healthy diet and the taking of adequate exercise</b> .	NA	5.4.1	4.3.3	QP 08	Working under extremes of temperature or humidity or other adverse environmental conditions to be included in health campaigns	60
4,1	The company conducts <b>pre-employment assessment</b> for job competence and training for officers and ratings.	Techniques such as <b>simulator training and computer-based or psychometric assessment</b> should be used to confirm job competence before confirmation of employment.	6,2	6.6.2	4.4.2		Seagull program is used for officers only . Psychometric tests to be considered	50
4,2	The company has a <b>documented planning</b> process to ensure that <b>future manning needs</b> can be met.	Staff succession and recruitment planning is conducted, including profiling of <b>competence, experience and retirements</b> . Assessments are made for <b>future</b> shore-based assignments.	12,2	5,6	4,6	Forms 084, 104	Covered by Company's procedures.	100
4,3	The management's written policy is to operate vessels with senior officers who have <b>appropriate</b> experience and training on the particular type and size of ship.		6,3	5.4.1	4.3.3	QP 5.14	Covered by Company's procedures.	100

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

4,4	The company undertakes vessel <b>health-risk assessments</b> on a rolling basis.	Monitoring of physical hazards such as <b>noise levels, inventorying hazardous materials and assessing human factors</b> are carried out on a regular basis and fully documented.	1.2.2.1, 10.2.1	7.2.2	4.4.6		To include "Risk assessment for human factors" such as fatigue.	90
4,5	Seafarer appraisal processes are linked to future <b>training and promotion</b> requirements.		6,5	6.2.2	4.4.2	Form 005	Covered by Company's procedures.	100
<b>Aver. Score</b>								<b>87</b>

**3B RECRUITMENT AND MANAGEMENT OF SHIPS' PERSONNEL**

**AIM** Through strong leadership, management promotes the concept, of safety and environmental excellence at all levels in an organisation.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	Shore management provides adequate resources to ensure the <b>well-being</b> of crews.	Management ensures that adequate resources are available to care for the welfare of the ship's crew, whether they are employed directly or through a manning agency. Well-being covers diverse aspects of the crew's <b>quality of life</b> including factors such as <b>quality of food</b> , accommodation, rest and recreation facilities, hygiene, air conditioning, access to ship and shore medical facilities, and eligibility for compassionate leave.	4	5.5.1	4.4.1	QP 5	Eligibility for compassionate leave for 1st degree relatives to be added.	90
1,2	There are procedures to ensure that the <b>working hours</b> of all personnel are in line with STCW guidelines and are being accurately recorded.	Management ensures that officers and crew are complying with the STCW limitation of hours requirements. The company ensures that officers and crew receive adequate periods of rest. The provision of <b>additional manning</b> may be appropriate, particularly where voyages are short or <b>where workloads are high</b> .	5.1.4	7.2.2	4.3.2	QP 8.13 7 form 092	To add "additional manning may be appropriate, particularly where voyages are short or where workloads are high" in the procedure	90
1,3	There are procedures to ensure that crew <b>training</b> is undertaken within a specific time.	All training, whether mandatory or <b>discretionary</b> , is undertaken within a set <b>time frame</b> for each rank.	6.3, 6.5	6.2.2	4.4.2	Form 363	A matrix with time frames to be documented	70
2,1	The company provides initial and <b>refresher training</b> for all ranks.	The requirements outlined in the STCW code are a minimum standard that the company aims to exceed. The company values and encourages <b>refresher training</b> for its staff.	6,5	6.2.2	4.4.2		Covered by Company's procedures	100

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

2,2	Management monitors and records <b>training results</b> .	The <b>outcome</b> of individual training is, where appropriate, <b>measured to ensure effectiveness</b> . This information is recorded.	6,5	6.2.2	4.4.2	Form 009	Evaluation of training form to be added	30
2,3	The company has procedures to <b>identify additional training requirements</b> .	The company monitors personnel to identify training needs. The <b>type</b> of training required is <b>linked to the crew appraisal system</b> .	6,5	6.2.2	4.4.2	Form 005	Covered by Company's procedures	100
2,4	Crew training includes the use of <b>audiovisual training aids</b> .	This training may be carried out either <b>on board, or ashore</b> at the company or agency office or training centre, or in combination.	6,5	6.2.2	4.4.2		Videotel and Seagull	100
3,1	Company policy provides <b>career development for junior officers</b> and aims to recruit senior officers from within the company where possible.		NA	5.4.1	4.3.3	QP 5.2	Covered by Company's procedures	100
3,2	The company achieves an <b>80% retention rate for senior officers over a two-year period</b> .	Retention rates for differing ranks and nationalities are monitored.		5.4.1	4.3.3		Retention rate to be measured by crew department and included in KPI's	50
3,3	The company organises <b>senior officer seminars</b> that promote and enhance the company's safety management system.	The company holds shore-based seminars for senior officers <b>at least every two years</b> .	6,5	5.4.1, 6.2.2	4.3.3, 4.4.2		It's done in practise.	100
3,4	Training for seafarers <b>exceeds</b> the minimum requirements of the STCW code.	Management <b>determines</b> the type of <b>additional training</b> that is required according to circumstances.	6,5	5.4.1, 6.2.2	4.3.3, 4.4.2	QP 5 7 forms 363, 017	Training per rank to be clarified	70
4,1	Company policy provides <b>alternative career opportunities</b> for officers by undertaking shore assignments in the head office.	Shore assignments are used to provide assessment before promotion or to provide an opportunity to experience working in a meaningful role within the office. It is company policy to transfer officers ashore for career development.	NA	5.4.1	4.3.3		To be considered.	0
4,2	Management achieves an <b>officer retention rate greater than 80% over a two-year period</b> .		NA	5.4.1	4.3.3		Retention rate to be measured by crew department and included in KPI's	50
4,3	<b>All officers</b> attend company-run seminars <b>at least once every two years</b> .	All officers attend <b>shore seminars</b> . The agenda covers contents of the <b>annual ISM management review</b> , safety and company philosophy.	6,5	5.4.1, 6.2.2	4.3.3, 4.4.2		The annual ISM management review to be added in the seminars	50
<b>Aver. Score</b>								<b>71</b>

## 4A RELIABILITY AND MAINTENANCE STANDARDS

AIM Each vessel has a **formal maintenance and defect reporting system** and an **optimum spare parts inventory**.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	Shore management regularly <b>monitors the maintenance system</b> .	The status of maintenance standards is <b>frequently</b> reported to shore for review. Shore management monitors vessel status and provides any assistance required.	10,2	8.2.3, 8.2.4	4.5.2	Forms 210, 217, 239	Covered by Company's procedures	100
1,2	Each vessel in the fleet has a <b>formal maintenance plan and a maintenance and defect reporting system</b> .	The system, which may be computer-based, <b>covers all on-board equipment</b> on the bridge, the deck and in the engine room and all electronic equipment.	10.1, 10.2	8.2.3, 8.2.4	4.5.2	Forms 210, 217, 239, 252	Covered by Company's procedures	100
1,3	The company ensures that <b>condition of class (CoC)</b> items are dealt with as soon as is practicable and that shore management <b>monitors</b> them.	Outstanding CoC items are always of great concern to a potential charterer. Vessel owners and operators should strive to correct any such items without delay and are encouraged to do so before the due date as issued by class.	10,2	8.2.3, 8.2.4	4.5.2		Covered by Company's procedures	100
2,1	There is a <b>back-up system ashore to monitor</b> all vessel <b>certificates</b> in addition to the monitoring system on board the vessel.		10.1, 11.1	4.2.3, 8.2.3, 8.2.4	4.4.5, 4.5.2		In house program is available	100
2,2	<b>Superintendents follow up</b> on all required maintenance.	Superintendents ensure that work described in the maintenance plan has been carried out <b>during visits</b> on board and by checking records.	10.1, 10.2	8.2.3, 8.2.4	4.5.2	Form 249	A statement "PMS items checked" to be added in Supt. Inspection report	90
2,3	A <b>common, computer-based maintenance system</b> on board each vessel records all planned maintenance.	The maintenance and defect reporting system is held on computer for a better overview and easier editing. This only includes <b>reference</b> to the <b>manufacturer's job description</b> , not the instructions.		4.2.3	4.4.5		PMS has reference to manufacturers job description.	100
2,4	<b>Superintendents visit</b> vessels to audit maintenance and defect plans.	Company superintendents visit and, if appropriate, <b>sail on the vessel</b> to confirm that maintenance standards defined in the company plan are being maintained.	10,2	8.2.3, 8.2.4	4.5.2		List of Supt attendances to be updated as necessary.	100
2,5	The maintenance and defect reporting system <b>automatically alerts</b> the staff responsible for shipboard maintenance <b>on board and ashore</b> when it becomes due.		10,2	8.2.3, 8.2.4	4.5.2	Form 252	In defect form to add proposed close out date which will automatically alert shore and shipboard staff	90

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

3,1	The maintenance and defect reporting system also monitors the ship's <b>spares inventory</b> and highlights any shortages.		NA	NA	NA		Spares inventory is separately monitored, but there is a plan to install a new PMS which will cover this requirement	20
3,2	The on-board maintenance and defect reporting system tracks all <b>outstanding repair</b> items, including <b>drydock work lists</b> .		10.1, 10.2	8.2.3, 8.2.4	4.5.2	Form 252	Defect reporting system to be upgraded as per 2.5 in order to include drydock lists.	60
3,3	There is a <b>fleet-wide system</b> to track outstanding maintenance and defect items.	<b>System-generated</b> reports are kept in a common database ashore to allow shore management to monitor the performance of all vessels in the fleet.	10,4	8.2.3, 8.2.4	4.5.2		Covered by Company's procedures	100
4,1	There is a formal <b>shipyard repair list</b> maintained on board and ashore.	The list includes all items considered unsuitable for in-service repairs. The list is automatically generated by the onboard maintenance and defect reporting system.	NA	NA	NA		The shipyard list is developed manually. There is a plan to install a new PMS which will cover this requirement.	50
4,2	The company policy is to maintain an <b>optimum spare parts inventory</b> or <b>system redundancy</b> on vessels.	Special attention is given to establishing onboard spare parts all inventory based on <b>critical equipment evaluation</b> or <b>hazard- identification</b> studies.	10,3	8.2.3, 8.2.4	4.5.2		A minimum spare parts list to be developed based on system redundancy or hazard identification.	40
4,3	The maintenance plan includes <b>preventive</b> measures.	<b>Records</b> are available to demonstrate the use of <b>vibration, infrared or performance monitoring</b> of main and auxiliary equipment.	10.2, 10.3	8.5.3	4.5.3	Forms 242, 253, 258, TMON	Equipment for measuring vibration and infrared thermometers to be considered	60
<b>Aver. Score</b>								<b>79</b>

**4B RELIABILITY AND MAINTENANCE STANDARDS (CRITICAL EQUIPMENT)**

**AIM** Testing and planned maintenance of **critical systems** and equipment are always carried out as per the plan.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	There are <b>clear reporting requirements</b> when critical systems, alarms or equipment become defective, or require planned or unplanned maintenance.		10.3, 10.4	8.5.3	4.5.3	QP 10 para 5.6, QP 17 & Form 252	In form 252 to include critical/non critical boxes	90
1,2	<b>Critical equipment and systems</b> are recorded in the ship's planned maintenance system.	Critical equipment lists are available in an easy-to-understand format. All items listed are identified in the planned maintenance system.	10,4	8.5.3	4.5.3		Covered in Company's procedures	100

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

2,1	Critical equipment and systems are <b>identified</b> within the ship's safety-management system.	Management provides clear instructions on the identification of on-board critical systems, alarms and equipment. <b>Risk-assessment or hazard-identification</b> methods are documented to help the identification of such equipment and systems.	10,3	8.5.3	4.5.3	QP 10 para 5.6	In risk assessment form to include Risk assessment for all critical equipment. To revise Risk assessment procedure accordingly	50
3,1	For <b>routine</b> planned maintenance of critical equipment, ship's staff provide shore management with a <b>risk assessment</b> that requires approval before the equipment is shut down.	The <b>risk assessment includes</b> :alternative back-up equipment / systems, necessary modification in operational procedures as a result, additional safety procedures (emergency).	NA	NA	NA		To revise Risk assessment procedure to include risk assessment for routine planned maintenance of critical equipment.	50
3,2	<b>If the agreed shutdown period for critical equipment or systems cannot be achieved</b> , any extension or alternative actions will require <b>review by shore management</b> .	A further risk assessment is undertaken if circumstances (such as <b>environmental conditions, crew fatigue or operational parameters</b> ) change.	NA	NA	NA		To be included in Risk assessment procedure.	100
3,3	The ship operator gives special attention to recording <b>test and performance</b> data for all critical equipment and systems.	Critical equipment and systems should be treated as <b>priority</b> items in the fleet's planned maintenance systems	10,3, 10,4	4.2.4, 8.5.3	4.5.3, 4.5.4		In critical equipment list to add a column with performance test as appropriate	80
3,4	The ship operator identifies and documents <b>competency standards</b> with regard to critical equipment and systems.	Shore management should define minimum competency standards for critical equipment and systems with regard to operation, maintenance and repair, amending parameters, such as changing alarm set points.	10,3	8.5.3	4.5.3		Performance competence standards to be developed as per 3.3	80
4,1	<b>No incidents or out of service times</b> are attributable to a failure in managing the maintenance of critical equipment or systems and associated alarms.	Through the development of a sound and predictive maintenance system, <b>trends and historical data</b> can be used to forecast necessary maintenance of critical systems.	10,3, 10,4	8.5.3	4.5.3	Form 238	Covered in Company's procedures	100
4,2	The company <b>always</b> meets maintenance and testing deadlines within regulatory or other defined parameters		10,3, 10,4	8.5.3	4.5.3		Covered in Company's procedures	100
4,3	There is a <b>common</b> ship-shore process that tracks the testing of all on-board systems.		10,4	8.5.3	4.5.3		Covered in Company's procedures	100
<b>Aver. Score</b>								<b>85</b>

## 4C RELIABILITY AND MAINTENANCE STANDARDS (CLOSE-OUT PERFORMANCE)

**AIM** Management tracks the number of outstanding maintenance tasks to ensure that these are resolved quickly and efficiently.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1	Year to date - <b>greater than 10% but less than 15%</b> outstanding tasks.	The number of <b>outstanding planned maintenance tasks</b> across the fleet is expressed as a percentage of the total number of <b>monthly</b> planned maintenance tasks. Data should be recorded <b>monthly</b> with a running year-to date figure also recorded.	NA	5.4.1	4.3.3			na
2	Year to date - <b>greater than 6% but less than 10%</b> outstanding tasks.		NA	5.4.1	4.3.3			na
3	Year to date - <b>greater than 2% but less than 6%</b> outstanding tasks.		NA	5.4.1	4.3.3			na
4	Year to date - <b>less than 2%</b> outstanding tasks.		NA	5.4.1	4.3.3		A record to be developed to show percentage of PMS outstandings per ship/per month/per year	90
<b>Aver. Score</b>								<b>0</b>



## 5A NAVIGATIONAL SAFETY

AIM Establish and consistently apply navigational practices, bridge procedures and deck-officer training in line with regulatory frameworks and company policies.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	<b>On-board navigational audits</b> conducted by shore staff follow a <b>documented</b> process.	The <b>frequency</b> of navigational audits by suitably qualified staff is specified and monitored. Action points from audits are assigned and verified as completed. Action points will include, as a <b>minimum</b> , a review of passage plans, chart corrections, navigational administration and compliance with company procedures. The results of these audits are monitored.	12.1, 12.3, 12.5, 12.6	8.2.2	4.5.5	Form 097	Frequency is annually. Form 097 to include review of passage plans, chart corrections, navigational administration and compliance with company procedures	80
1,2	The ship operator has identified <b>shorebased staff</b> who are <b>responsible</b> for maintaining nautical standards on board vessels.	Responsible person(s) should have direct access to senior management and the authority to implement suitable controls.	3.2, 4	5.5.1	4.4.1	QP 03	DPA is responsible for charts/publications and Operations Dept for navigational equipment (needs to be included in procedure)	90
1,3	The safety-management system includes navigational procedures.	These procedures include, but are not limited to, <b>chart correcting, passage planning, under-keel clearance, navigation with pilot aboard, heavy weather, restricted visibility and calling the master.</b>	1.2, 7	7,1	4.4.6	Forms 034, 038-a-b, 041,046, 047	Covered by Company's procedures	100
1,4	There is a <b>documented</b> procedure to ensure that <b>fully corrected charts</b> are in place <b>for the forthcoming voyage.</b>		1.2, 7	7,1	4.4.6	Shipboard manual 2.17.1	Covered by Company's procedures	100
2,1	All navigational equipment is maintained fully operational. The company documents all defects and corrective actions.	The company employs <b>suitably trained staff capable of maintaining electronic navigational equipment or has such staff available under contract.</b> The company has procedures to ensure proper notification when <b>critical equipment</b> fails.	10.1, 10.2, 10.3, 10.4	8.2.3, 8.2.4	4.5.1		Contract is available with JRC and Nova Electronics for GMDSS equipment. A contract may be issued for non-GMDSS equipment	20
2,2	The ship operator identifies and documents <b>trends</b> from navigational audits and uses this information to improve standards.	The company identifies action points, sets improvement targets and tracks these to completion.	5.1.5, 12.2	5,6	4,6		Statistical data from navigational audits to be recorded	0

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

2,3	Navigational procedures include a requirement for the <b>master to conduct audits</b> , which are formally recorded, to ensure that all officers are complying with procedures.	The <b>frequency</b> of audits is specified and monitored for compliance. Shore staff check records during visits. On-board audits include items such as <b>random checks</b> on chart corrections and adherence to passage plans.	1.2, 5.1.4, 7	8.2.3, 8.2.4	4.5.1		A Master's audit checklist may be developed	0
2,4	Chart supply is automated under a contract with a <b>recognised chart agent</b> .	The company has arranged for <b>automatic supply of chart corrections, new editions and publications</b> . A chart agent monitors chart folios.	NA	NA	NA		Thomas Gunn is used.	100
3,1	<b>Electronic charts</b> are in use aboard company vessels.	The company has a system to ensure that electronic charts are kept fully corrected.	NA	NA	NA		C-Mao is used	100
3,2	The ship operator has a formal programme to ensure that senior officers receive <b>additional ship handling training before promotion to master</b> .	<b>Promotion to master</b> is achieved by practice under supervision on similar vessels through participation in manned models simulator training or through other professional development methods.	6.1.1, 6.2, 6.5	6.2.2	4.4.2	QP 5.13	Simulator training and 3 months on board with previous Master is required by Company's procedures.	100
3,3	Ship operators provide <b>bridge-team</b> training courses for <b>all deck officers</b> . These courses follow a set format.	Trainers are suitably qualified. <b>Refresher</b> training is conducted wherever needs are identified. Staff training records are documented.	6.2, 6.5	6.2.2	4.4.2		Covered by Company's procedures	100
3,4	The ship operator has procedures to support effective <b>bridge-team management</b> .	These procedures may include the use of checklists covering, for example, <b>master-pilot information exchange, taking over the watch and navigation during restricted visibility</b> . Contingency plans addressing navigational and machinery failures are available.	1.2, 7, 8.1	7.7.2, 8.3	4.4.6, 4.4.7		Contingency plans may be expanded for all critical navigational equipment.	70
4,1	<b>Audit reports</b> from the fleet are <b>analysed</b> and actions taken to improve procedures.	The company analyses reports to <b>identify weak areas</b> in navigational procedures and takes appropriate action to resolve problems.	12.3, 12.5, 12.6	5.6, 8.4	4.5.3		Statistical data from navigational audits to be recorded	0
4,2	The ship operator arranges <b>independent, random navigational reviews</b> across the fleet to check general navigational competence.	The company uses a <b>suitably qualified external company</b> to conduct audits at <b>specified intervals</b> .	NA	NA	NA		To be considered	0
4,3	Deck officers undertake periodic <b>bridge-team management simulator</b> training at a recognised shore establishment.	The company operates a programme to provide training for all navigating officers within a specified time frame.	6.2, 6.5	5.4.1	4.3.3		Covered by Company's procedures	100
<b>Aver. Score</b>								<b>64</b>

## 6A CARGO AND BALLAST OPERATIONS

**AIM** Ship operators should establish, monitor and maintain all planning and operational procedures for cargo and ballasting operations and equipment, and ensure that these procedures are effectively implemented.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	There is a documented system in place to ensure that the company <b>monitors cargo and ballast plans</b> .	Reports by visiting superintendents, or records ashore, confirm adherence to <b>seasonal loadline zones, port restrictions and shipboard limits, including maximum cargo capacities and loading rates</b> .	1.2, 7, 10.2	7.2.1	4.4.6		Needs to be included in Supt inspection report	90
1,2	A <b>designated senior officer</b> is responsible for implementation of the cargo and ballast procedures.	Responsibility for cargo and ballast operations is included in the documented job description of the senior officer. Adequate manning levels ensure effective implementation of the cargo/ballast plan.	3.2, 7	5.5.1	4.4.1	Shipboard manual 1.3.16	Chief officer is responsible. Safe manning about 15 persons, actual manning around 25 persons.	100
1,3	There is a <b>documented procedure for planning cargo and ballast operations</b> and the <b>master approves</b> each operation.	Pre-arrival planning incorporates stability and stress checking at all stages of the proposed operation, including any <b>limitation</b> on the number and location of <b>slack tanks</b> . Additional information includes all details relating to load/discharge rates, ballast operations, ullages, trim, cargo stowage and management of tank atmosphere. It is available at the ship-shore interface meeting and complies with ISGOTT recommendations. Communications and coordination between ship and shore are discussed.	1.2, 5.1.4, 7	5.4.3, 7.2.2	4.4.3, 4.4.6	Forms 303, 318	Covered by Companys procedures.	100
2,1	Procedures for ballast operations include comprehensive and detailed plans relating to the <b>heavy-weather ballasting</b> within designated cargo tanks of segregated ballast tankers.	Such plans include consideration of ballasting before the onset of severe weather. Other factors include, but are not limited to, deck access throughout such operations; supervision by an officer in communication with the bridge and deck personnel; line and valve settings; tank venting; and ullage monitoring.	1.2, 6.7, 7, 8.1				A ship specific procedure to be developed.	0

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

2,2	Cargo and ballast spaces are <b>regularly</b> inspected and their integrity maintained. Records are <b>tank specific</b> and based on a company supplied format and include <b>photographic evidence</b> .	The company offers supportive guidance, through industry/class publications providing <b>comparative photographs</b> and a <b>geographic layout</b> of each tank to ensure uniformity of reporting.	10.1, 10.2	8.2.3	4.5.1		Cargo and ballast tanks are inspected every 12 and 6 months respectively. Comparative photographs and geographic layout to be included.	50
2,3	Records are available to demonstrate the operational accuracy, using class-approved test data, of the <b>load computer</b> (where fitted).	The <b>frequency</b> of tests is specified within the planned maintenance system. Where no computer is fitted, checks against the stability booklet demonstrate accurate comparison with example cargoes.	1.2, 7, 10.2	8.2.3	4.5.1	QP-13 & Form 331	Tests are done prior cargo operation or every month whichever is earlier.	100
2,4	Procedures ensure <b>independent</b> monitoring of tank levels in addition to the primary gauging system.	Suitable cost effective methods could include the use of <b>independent high-and high-high-level alarms</b> .	1.2, 7	8.2.3	4.5.1		Fitted on all oil tanker vessels	100
3,1	Where <b>online gauging of tank contents is not fitted</b> , procedures require regular updating of the loading computer for stress monitoring.	This allows comparison of real and calculated draft and trim to give a proactive warning of any unplanned or unobserved deviations from the plan.	1.2, 7	8.2.3	4.5.1		Frequency of tests is every our as per practise, but need to be included in procedure	90
3,2	There is a documented system in place to ensure that <b>junior officers are actively involved</b> in planning, cargo-line setting, and execution of the cargo and ballast operations.	Appraisal reports verify regular participation in support of the officers' training and development process.	5.1.3, 5.1.4, 6.5, 6.7, 7	6.2.2	4.2.2	Form 005	In appraisal report to include participation of junior officers in cargo operations	0
4,1	The company is actively involved in the development of <b>innovative technology</b> and proactively works with equipment manufacturers.		NA	NA	NA		To be considered.	0
4,2	Officers attend shore-based courses that provide <b>interactive computer modules</b> to ensure familiarity with operational and emergency procedures.	These include computer-based training that covers <b>the consequences of overfilling; stability implications of slack tanks, with particular reference to double-hulled vessels constructed with undivided, full-width tanks; inadequate ventilation; consequential structural damage; gas monitoring; and other critical tank conditions</b> . Preventive planning and operations are then <b>refreshed and updated</b> .	6.2, 6.5	6.2.2	4.2.2		Seagull is available in head office only.	50
<b>Aver. Score</b>								<b>62</b>

## 6B MOORING OPERATIONS

**AIM** Ship operators should establish, monitor and maintain all planning and operational procedures to ensure that mooring equipment and operations are effectively managed.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	There is a <b>documented</b> procedure to ensure that maintenance of mooring equipment is completed , <b>annually</b> .	<b>Ship-specific test kits</b> and methods ensure that OCIMF guidelines are met. Special attention to the <b>rendering values of mooring winch brakes</b> will reduce the risk of injury from overstressed moorings.	10.1, 10.2, 10.3	8.2.3	4.5.1	Form 306	To include testing procedure as per OCIMF requirements (rendering value 60% of line's breaking capacity)	90
1,2	The ship operator has a documented procedure to ensure that the maintenance and routine condition monitoring of mooring equipment are <b>included</b> within the planned maintenance system ( <b>PMS</b> ).	The PMS covers all mooring equipment and includes the description and method for each maintenance task, the <b>spares inventory</b> and the <b>replenishment</b> of used parts.	10.1, 10.2	8.2.3	4.5.1		The spares inventory and the replenishment of used parts to be included in PMS	20
1,3	The ship operator has a <b>documented procedure to ensure mooring equipment and practices</b> comply with OCIMF guidelines and statutory regulations.	Guidance ensures protection of personnel and safe operation of equipment.	1.2.3, 10.1	7.2.2	4.4.6	Shipboard manual 3.4	OCIMF+ ISGOTT guidelines to be included.	60
2,1	The ship operator has a documented procedure to <b>monitor unpredicted changes in environmental conditions and traffic movements</b> to avoid the vessel breaking out from its berth.	Procedures should be in place to <b>obtain and record</b> , by all available means, <b>all weather, tide and current ranges and forecasts, and traffic movements</b> .	1.2, 7, 8.3	8,3	4.4.7		To upgrade mooring pattern form to include all weather, tide and current ranges and forecasts, and traffic movements. Form to be included in the document control system	50
2,2	The ship operator has a documented procedure covering <b>deployment and monitoring of moorings</b> throughout port operations.	Awareness of mooring deployment and monitoring includes <b>suitable supervision, competency of personnel, sufficient members in mooring teams and familiarity with any specific shore requirements</b> relating to shore moorings, passing traffic or tidal concerns.	1.2, 6.5, 7	6.2.2	4.4.2	Shipboard manual 3.4	A documented procedure with reference to mooring pattern and mooring equipment familiarisation to be developed.	50

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

2,3	The ship operator has a documented procedure to ensure that <b>records</b> are maintained to indicate the <b>inspection and replacement dates of wires, ropes and tails.</b>	<b>Certificates for ropes and wires</b> are annotated with dates and the specific winches to which they are fitted and/or end for ended. <b>Spares levels</b> reflect the trading area. Intensive trading patterns may require <b>more frequent changeout of tails</b> than that prescribed in OCIMF guidelines.	1.2.3, 10.1, 10.2	8.2.3	4.5.1	Forms 315, 364	Criteria for replacement of tails ton include elongation less than 15% measured e.g. every 6 months	50
3,1	There is a <b>record of routine risk assessment</b> to ensure that all anticipated mooring arrangements and equipment ensure the safety of shipboard personnel.	Equipment layout minimises the risk of injury. Self-stowing drums, which are operated from remote positions away from the area likely to be affected by rope/wire failure, may help to reduce the risk of injury.	NA	NA	NA		A significant number of vessel's equipped with remote mooring controls. Risk assessment is also required by Company's procedures.	80
3,2	There are documented procedures regarding <b>anchoring operations.</b>	These procedures include reference to all industry practices and guidelines.	1.2, 7	8.2.3	4.5.1	Shipboard manual 3.3 & Forms 035, 057	A reference to OCIMF publication "Anchoring of large tankers" may be made	80
4,1	The company has a <b>documented process</b> to ensure that <b>power supplies</b> for mooring equipment, including steam, hydraulic or electric types, are <b>sufficient and adequately protected.</b>	Spray shields/guards protect personnel and adjoining equipment/motors from the risk of leaks. Where the power source is a single hydraulic motor, alternatives are available ( <b>spare motor or cross connection fore and aft</b> ). <b>Additional gas/fire detection and extinguishing systems</b> are made available for monitoring any enclosed spaces containing mooring-equipment power supplies.	1.2, 7	8.2.3	4.5.1	Form 314	A documented procedure to be developed. Fire/gas patrols to include Forecastle and Poop deck in mooring equipment power units spaces	80
<b>Aver. Score</b>								<b>62</b>

## 7A MANAGEMENT OF CHANGE

**AIM** A change-management process is in place throughout the office and operates effectively to reduce operational risks.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	The change-management process clearly defines the <b>level of authority</b> required for the approval of a change.	It is important that changes are reviewed at the defined level of authority and, where new risks are identified, the adequacy of the <b>risk-reduction measures</b> is authorised by a <b>higher authority</b> . Where possible, guidance is provided on the appropriate level of approval required for different categories of change. This will be based on the level of risk involved.	1.2, 3.2, 7, 11.2.2	5.5.1	4.4.1	QP 23	A new procedure to be added. Approval of higher authority to be included in the procedure.	50

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

1.2	The ship operator has a <b>documented procedure</b> for change management.	Even minor changes can affect safety if they are not properly carried out. Change can result from <b>installation of new equipment or components, use of a different material, or simply a new instrument setting (outside normal operating limits) for equipment.</b> Temporary arrangements, such as <b>hose connections</b> between process-utility systems, also require systematic review.	10.3, 11.2.2	5,6	4,6	QP 23	To be included in the procedure.	50
2.1	Where appropriate, the company may use techniques such as <b>risk assessment</b> to evaluate the impact of any change.	The procedure includes a requirement to conduct a risk assessment on <b>all routine and non-routine tasks.</b>	1.2, 7	5,6	4,6	QP 23	To be included in the procedure.	50
2.2	The system routinely identifies any <b>training needs</b> arising from changes to equipment or procedures.	The change management process routinely identifies relevant training requirements. All <b>appropriate</b> personnel receive the required training within a <b>specified period.</b> This is adequately documented.	6,5	6.2.2	4.4.2	QP 23	Specified period to be included in procedure. Reference to training may be made.	50
2.3	The company keeps <b>records</b> for verification purposes.	Permanent changes and the review process that led to their approval are documented. This mechanism links into the <b>document control system,</b> so that important controlled documentation remains up to date.	1.2, 5.1.4, 7, 9.2, 11.2.2	4.2.3	4.4.5		To be developed	50
2.4	The ship operator has <b>documented handover procedures for both shorebased staff and ships crews.</b>	The <b>scope and depth</b> of information are relevant to the responsibilities of the personnel involved.	3.2, 6.7	5.5.1	4.4.1	Forms 002, 062	In place for Master, Chief officer and Chief engineer. To be expanded for all officers and petty officers as well as for shorebased staff	50
2.5	The ship operator has a <b>documented familiarisation process for both shore-based staff and ships' crews.</b>	The <b>scope and depth</b> of information should be relevant to the responsibilities of the personnel involved.	6.3, 6.5	5.5.1	4.4.1	Forms 008, 019,020, 012,013, 014,015, 030	Covered by Company's procedures	100

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

3,1	The system ensures that all <b>applicable drawings, procedures and other technical documents</b> are updated following any change or modification.	From the <b>time of initial construction</b> , or acquisition, of a vessel, a historical record is maintained that indicates any structural or technical changes made, the status of equipment, and how that status has evolved from the original design. Document-control systems are used to initiate and control the flow of information.	11.1, 11.2	4.2.3	4.4.5		A revision history to be included in the list of drawings - technical publications	90
3,2	The procedures include provisions for <b>familiarisation</b> of superintendents and crew with <b>newly acquired vessels</b> entering into fleet ownership/management.	There is a process to ensure that bringing a newly acquired vessel into service includes time for the crew and superintendents to familiarise themselves with the vessel. The company has a <b>checklist</b> of the key steps to be taken to complete this process. The list includes items such as <b>equipment familiarisation and training</b> .	1.2, 6.3, 6.5, 7, 8.1, 8.2, 8.3	6.2.2	4.4.2		The checklist of new acquired vessels to be included in the document control system.	70
4,1	There is a documented <b>annual review of the impact of all changes</b> to the ship operator's roles and responsibilities.	The company reviews the documentation to ensure that all the changes have met expectations and plans. Any improvements are <b>formally recorded</b> . If any problems are found, the company has a process to ensure that appropriate action is taken and any issues resolved. This could be included within the <b>annual review</b> of the company's safety-management system.	9.2, 11.2.2, 12.2	4.2.3, 5.6	4.4.5, 4.6		Agenda of annual management review to include "Impact of changes"	90
4,2	For major <b>changes to the shore organisation</b> , the system should require a detailed <b>review of the impact</b> on the organisation and on the management system.	When organisational changes (changes in reporting relationships, elimination of positions, restructuring, etc.) take place, those responsible for supervising or managing the function(s) undergoing change should also be responsible for clear and explicit reassignment of responsibilities.	3.2 12.2	5.5.1, 5.6	4.4.1.4, 6	QP 23	To be included in the procedure.	90
<b>Aver. Score</b>								<b>67</b>



## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

## 7B MANAGEMENT OF CHANGE

**AIM** A change-management process is in place throughout the fleet to assist staff in identifying hazards and to reduce operational risks.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	The ship operator has a change process that ensures <b>all temporary and permanent changes</b> to procedures or equipment on board the vessel are subject to risk assessment.	The safety management-system manuals contain a <b>section dedicated</b> to the change management process. The procedure includes a <b>requirement for risk assessment of all routine and non-routine tasks</b> .	NA	NA	NA	QP 23	To be included in the procedure.	50
2,1	The system ensures that the documentation supporting a change <b>includes the reason for the change, a clear understanding of the safety and environmental implications, and the appropriate level of approval</b> .	The company has prepared a <b>document (checklist)</b> that ensures authorisation for any change is approved by <b>senior ships' management</b> and not by the person directly involved in the change. The document includes reference to appropriate safety and environmental issues.	3.2, 11.2.2, 12.6	5.5.1	4.4.1		A new form(checklist) to be prepared.	50
3,1	The company <b>communicates</b> the results to those affected by the change.	The company identifies all personnel that may be affected by the change and ensures that those identified understand the extent and likely impact of any planned change.	7	5.5.3	4.4.3		Training needs to be developed.	50
3,2	The system ensures that the potential consequences of a change are identified, together with any required <b>risk-reduction measures</b> .	Once the company has assessed the risks, it evaluates the potential consequences and their likelihood of occurrence. This process helps the company to identify and prioritise the most effective risk-reduction measures. It will also identify <b>residual risks</b> that require management attention.	9.2, 12.3, 12.6	8.5.3	4.5.3		Risk assessment records to be developed.	50
4,1	The system also ensures that any <b>temporary changes</b> do not exceed the initial authorisation for scope or time without <b>review and re-approval</b> by appropriate management.	The change-management process makes it clear that if a proposed change is not completed <b>within a set time frame</b> then the change must be reviewed, the initial hazard observation/risk assessment revisited and reapproval sought.	3.2, 9.2, 11.2	5.5.1	4.4.1		Validity to be included in the form.	50
4,2	The system ensures that changes not carried out within the proposed time scale are <b>reviewed and revalidated</b> .		10,2	7.2.2	4.4.6		To be included in the procedure.	50
<b>Aver. Score</b>								<b>50</b>

## 8A INCIDENT INVESTIGATION AND ANALYSIS

AIM Comprehensive Procedures are prepared and maintained for incident management.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	The ship operator has procedures to ensure the <b>rapid notification</b> of urgent safety-related issues within the fleet		9,1	8.5.2, 8.5.3	4.5.3	Forms 140, 141	Covered by Company's procedures	100
1,2	The reporting procedure addresses requirements for breaches of regulations.	Any investigation report includes reference to possible <b>breaches of company and legislative requirements</b> when determining root cause. The designated person ashore assesses all reports to determine which authorities should be notified.	4, 9.1	5.5.2, 8.5.2, 8.5.3	4.4.1, 4.5.3	QP 09	To add reference in Company's requirements for root cause analysis. DNV MSCAT may be used.	80
2,1	The ship operator has procedures that compel prompt investigation of all incidents or accidents, including high-potential near misses.	Investigation reports include a proposed <b>timescale</b> for closing out of corrective actions. Shore management should review this timescale until all issues are resolved The company has <b>access to any publications</b> that assist with conducting an incident investigation.	9,1	8.5.2, 8.5.3	4.5.3		Timescale for corrective action to be added at the end of investigation report. References to relative websites may be also made.	50
2,2	The person appointed to lead the investigation is not connected with the incident.	There are <b>at least two people available on board and two ashore</b> who are <b>capable</b> of conducting an incident investigation.	NA	NA	NA	Form 014	Appropriate training for these persons to be documented. Incident investigation training to be included to the briefing of Senior officers.	80
2,3	The ship operator has a procedure that defines <b>responsibilities</b> for reporting an incident, conducting the investigation and taking subsequent actions.	Incident reporting has a <b>specific</b> section within the safety- management system. This includes any regulatory reporting that may be required. Company procedures <b>offer guidance and specific reporting forms</b> .	3.2, 9.1, 9.2, 12.5, 12.6	5.5.1, 8.5.2, 8.5.3	4.4.1, 4.5.3	QP 09	Covered by Company's procedures	100
2,4	The ship operator uses the conclusions from the investigation to <b>reduce the risk of any recurrence</b> or related incidents.		9,2	8.5.2, 8.5.3	4.5.3	QP 09	An agenda including preventive action may be added in the procedure.	80

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

3,1	The incident investigation process ensures that the <b>root causes and factors</b> contributing to an incident or accident are clearly identified.	A <b>no-blame culture</b> encourages detailed reporting, especially of near misses and incidents.	9,2	8.5.2, 8.5.3	4.5.3	QP 09	Root causes to included and identified in the procedure. See DNV MSCAT - Basic causes. A no-blame culture to be included in procedures.	60
3,2	The incident management procedures ensure that the <b>lessons learnt</b> from an incident or near miss are <b>shared across the fleet</b> .	The company reviews all incidents and near misses in safety bulletins or circular letters to all ships and at senior officer seminars. <b>Periodical (at least annual) statistics</b> are available to the fleet in order to demonstrate improvements. The lessons learnt are used to drive improvements in safety and environmental performance.	9,2	8.5.2, 8.5.3	4.5.3	Forms 102, 087	To be addressed at senior officer seminars.	90
4,1	The ship operator has procedures to <b>share lessons with industry groups</b> , where appropriate.	Industry groups who can be contacted include classification societies, professional institutes and equipment manufacturers.	NA	5.4.1	4.3.3		To be included in relevant procedure.	50
4,2	The ship operator has procedures to share lessons with <b>oil-major vetting departments</b> , where appropriate.	The ship operator is <b>proactive</b> in reporting incidents and subsequent investigations to oil-major vetting departments.		5.4.1	4.3.3		To be documented	50
<b>Aver. Score</b>								<b>74</b>

**8B INCIDENT INVESTIGATION AND ANALYSIS - TRAINING**

**AIM** Ship operators provide training for both ship-based and shore-based management teams incident investigation techniques.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	<b>Internal briefings and training</b> are given to ship-based and shore-based management teams on how to conduct an investigation.	If external training is not provided, then shore-based company seminars should include incident-investigation training. For best practice, there should be <b>at least two staff members per vessel and an appropriate number of shore staff, dependent on fleet size</b> .	6,5	6.2.2	4.4.2		Incident investigation may be included in internal briefings and company's seminars	50
2,1	<b>External training</b> in incident-investigation techniques, including root cause analysis, is given to <b>at least one</b> of the shore-based management teams.	The company uses classification societies/ contracting companies to provide specific courses. This information may then be handed over to other relevant shore and ship personnel.	6,5	6.2.2	4.4.2		Six members of shore staff are trained by class.	100

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3,1	There is a documented procedure to ensure that investigation training is supported by <b>practice experience</b> .	Appraisal records include reference to investigation training. Trained personnel are given opportunities to participate in investigations (and practice the relevant skills) before being expected to lead an investigation.	6,5	6.2.2	4.4.2		Incident investigation may be included in the appraisal records. Practise experience may be included in the Company's seminars	80
3,2	When <b>new senior staff</b> are recruited, they <b>receive appropriate incident-investigation training</b> .	This investigation training is part of a comprehensive briefing conducted by the designated person ashore or the fleet safety officer.	6,5	6.2.2	4.4.2	Form 014	May be included in internal briefings	80
4,1	The ship operator has a documented procedure to ensure that <b>refresher training</b> takes place after an appropriate period.	The company has a section within its training programme specifically for such periodical <b>refresher</b> courses. The <b>appropriate</b> period, as determined by a ship operator, is documented in personal training programmes.	6,5	6.2.2	4.4.2	QP5.1	To include reference to refresher training and particularly investigation training. Appropriate period to be included	30
<b>Aver. Score</b>								<b>68</b>

**9A SAFETY MANAGEMENT - SHORE-BASED MONITORING**

**AIM** The ship operator has a comprehensive and proactive approach to the identification of hazards and the shore-based management of operational risks.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	Shore-based managers arrange <b>regular on-board visits</b> to monitor the safety standards and training across the fleet. A formal record of these visits is kept within the office.	Visits by marine superintendents or by shore-based managers are made, <b>at least annually</b> , to establish and maintain communication between ship and shore.	4, 12.1	8.2.2	4.5.5	Form 249	Evaluation of training may be added in Supt report.	90
1,2	Following ship visits, <b>recommendations for improvement</b> are made to senior management.	During these visits, every opportunity is taken to promote a strong safety culture across the fleet.	12,6	8.2.2	4.5.5		Covered by Company's procedures.	100
1,3	<b>Formal safety meetings</b> are held with officers and crew during shore-management visits.	There is a process to ensure that any feedback obtained from meetings is used to improve the company's safety procedures.	NA	6.2.2	4.4.2	QP 10 & Form 069	To be included in Supt. inspection procedure	50
1,4	The ship operator has a formal, documented <b>work-permit</b> system in place.	The system includes permits for the control of any hot work on board the vessel, including requirements for office-management approval of hot work in identified hazardous areas. Other permits, such as enclosed space entry, are also used - refer to ISGOTT.	1.2, 7	8.2.3	4.5.1	Shipboard manual 8.3.1.3 & forms 074, 089, 091, 311.	Permit forms for small craft alongside and work on pressure systems may be included.	90

2,1	The ship operator has a <b>formal risk assessment programme</b> to systematically identify potential hazards and manage operational risks fleet-wide. This should include health and hygiene.	Under this programme, shore management ensures that there are procedures requiring a risk assessment to be conducted on any hazards associated with non-routine repairs (following equipment breakdown or arising from the potential for breakdown) or other potentially hazardous operations.	NA	NA	NA	Shipboard manual 8.15	Assessment on hazards associated with equipment breakdown to be included.	50
2,2	<b>Records of all risk assessments</b> are maintained ashore and on board.	Official records of all risk assessments and meetings are reviewed by an appropriate company representative (possessing sufficient marine technical knowledge and background to properly evaluate and advise ships' personnel) ashore and kept on file.	NA	NA	NA	Health Safety and Environmental Report (Thesis) & form 356	DPA is responsible. Duties may be added in DPA's job description.	90
2,3	The assessment programme also includes provision for assessing <b>new or non-routine tasks</b> that may be carried out in the <b>future</b> .		NA	NA	NA		May be added in Risk management procedure such as drydocks, divers inspection and major repairs.	50
2,4	<b>Preventive measures and alternative methods</b> of work to permit safe completion of work are identified and documented in the risk assessment programme.	All recognised <b>potential hazards</b> or otherwise undesirable operations in the <b>risk assessment</b> programme are fully documented and used to improve the operating procedures in the safety management system.	9	8.5.3	4.5.3		Additional training provided to be included in risk assessment form.	80
2,5	<b>Achievable targets</b> are set for close out of the <b>preventive measures</b> identified in the risk assessment	All efforts are made to introduce identified preventive measures as soon as possible. Shore management keeps an active file, <b>investigates any delays</b> and <b>expedites closure</b> .	NA	5.4.1	4.3.3	Form 356	Preventive measures (safeguards) close out - targets - validity to be included in the form	90
3,1	Shorebased management regularly reviews the <b>validity</b> of risk assessments and ensures that any common risk assessments are applied across the fleet.	The risk-assessment programme is regularly reviewed and modified as required. Relevant documents are reissued in part, or as a whole, if required, after each review.	12,2	5,6	4,6		Review of risk assessments to be included in the management review agenda.	90
3,2	The risk-assessment processes should include <b>response</b> elements to limit the impact of any unplanned occurrences.	The company formulates <b>contingency plans</b> to facilitate safe recovery of the situation.	8,3	8,3	4.4.7		Covered by Company's procedures.	100

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3.3	Senior management establishes and supports proactive safety campaigns.	Campaigns encourage a strong safety culture within the company. For example, near-miss reporting programmes should be introduced as they help to reduce operational risks.	NA	5.4.1	4.3.3		May be done on frequent basis (eg 3 months)	90
3.4	Appropriate company representatives make <b>extended visits</b> to all vessels within the fleet to monitor the safety standards and ensure that safety training is being maintained.	Company representatives (possessing sufficient marine technical knowledge and background to properly evaluate and advise ships' personnel) <b>should try to make a short voyage on the vessel at least annually</b> , and should observe and advise the company of any required safety improvements and corrective actions.	9.2, 10.2	8.2.3, 8.5.3	4.5.1.4, 5.3	QP 10	May be added in relevant procedure.	80
4.1	Shorebased management <b>collates all on-board risk assessments</b> to check that standards are consistent.	The company identifies best practices for common areas of risk assessment and ensures that these are shared across the fleet. The company maintains a <b>computerised database of all ship-generated and shore-generated risk assessments</b> .	NA	NA	NA		Adequate records to be available	80
4.2	The company issues periodic ( <b>at least quarterly</b> ) safety publication(s).	Publications related to safety issues advise all personnel about past incidents/accidents and should include an analysis of all <b>lost-time accidents</b> and all incidents that could potentially have resulted in serious injury, and the preventive actions taken to avoid recurrence. It could also include safety tips and an analysis of accidents taken from industry publications. <b>On-board personnel are encouraged to participate by submitting articles</b> .	12.5	5.5.3	4.4.3		Company's "News" to include same.	0
<b>Aver. Score</b>								<b>75</b>

**9B SAFETY MANAGEMENT - SHIPBOARD MONITORING**

**AIM** The company has a comprehensive and proactive approach to the identification of potential hazards and the management of shipboard risks.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1.1	The ship's safety officer conducts safety inspections at <b>scheduled intervals</b> and the results are recorded.	<b>Records</b> are available for review by office management.	10.2.1 , 10.2.4	8.2.3	4.5.2	LSA/FFA Shipboard manual 8.1.3.1 & form 210	Forms completion may be included in safety officers responsibilities.	90

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1.2	<b>Significant safety deficiencies</b> that cannot be rectified by ships' staff are immediately reported to shore-based management.	The company has written procedures that require a full assessment of the situation to be undertaken by both shore and ship's management before the operation can continue.	9,1	8,3	4.5.3	QP 17 & Form 252	In procedure to make reference that for significant safety deficiencies of critical items approval from office must be granted.	90
1.3	On-board safety meetings are held <b>at least monthly</b> and as soon as possible after any serious incident or accident within the company.	Minutes of any formal meetings are <b>recorded</b> .	5.1.1, 9.1	6.2.2	4.4.2	Shipboard manual 8.1.4	Procedure to include requirement for safety meeting after any serious incident or accident within the company	0
1.4	There is a formalised system <b>on board</b> to identify hazards (hazard identification) during work planning.	Industry publications provide all the necessary information.	1.2, 6.4, 7, 8.3	8,3	4.4.7	Shipboard manual 8.1.4	Covered by work planning meetings.	100
2.1	At <b>monthly safety meetings</b> , the <b>agenda</b> includes safety monitoring and confirmation that all ship based safety procedures are being complied with.	The company has a system to ensure that ship and shore management can <b>demonstrate</b> that the ship's crew are complying with company safety procedures. Any deviation from agreed routines should be recorded and reported to the company for further action if required.	5.1.1, 5.1.2	5.5.3	4.4.3	Form 069	Safety meeting agenda to include safety monitoring and confirmation that all shipbased safety procedures are complied with	90
2.2	The company establishes <b>safety training needs</b> for <b>individual</b> employees during <b>drills and safety exercises</b> and records these on board.	The company has a list of crew knowledge for the vessel's various safety and safety-related equipment. <b>During drills and safety training, individual training needs</b> are established. The company provides <b>personalised training</b> in addition to the familiarisation programme required by STCW 1978/1995.	6.3, 6.5, 8.2	6.2.2	4.4.2	QP 5.1 & Form 009	To include training needs and should a training done to complete training log in training procedure	80
2.3	The ship operator has a formal risk-assessment system on board, and <b>relevant</b> crew members have <b>received training in hazard identification and risk assessment</b>	The company establishes ways to identify and limit a hazard to a manageable level using a risk assessment process. The crew receives advice on assessing unsafe acts and conditions, reporting findings and taking appropriate corrective action.	NA	NA	NA	Form 014	Training for risk assessment may be added in said form.	90

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3,1	The ship's management team promotes a strong, proactive safety culture on board, and all crew members are encouraged to be involved in <b>proactive safety campaigns</b> and work methods.	Regardless of any shore-based safety initiatives, the ship's senior management team is actively involved in promoting a strong safety, health and hygiene culture on the vessel. Examples are <b>near-miss reporting, hazard identification and use of appropriate personal protective equipment (PPE)</b> .	5.1.1, 5.1.2	5.5.1	4.4.1	Shipboard manual 8.1.5.3 & 8.1.7.14	Covered by Company's procedures.	100
3,2	Company safety policy ensures that senior officers always <b>lead by example</b> in safety-related issues.	Senior officers and visiting shore management set a good example to ships crews by wearing the correct PPE and complying with safety practices and procedures.	2.1	5.5.1	4.4.1		May be included in a "Code of Conduct"	90
3,3	The company sends officers and crew on safety-training courses <b>in excess</b> of statutory requirements.		6.4, 6.5	5.4.1	4.3.3		Covered by Company's procedures.	0
4,1	Safety <b>best practice</b> identified on individual ships is <b>transferred across the fleet</b> .	The company ensures there is a system to coordinate safety best practice across the fleet and that individual ships <b>share</b> safety best practice with others.	1.2.2, 3, 9.1, 9.2	5.5.3	4.4.3	Form 141	Records to be kept.	90
4,2	There is a system in place for ships' staff to <b>communicate ideas</b> for improving safety to shore management.	The company actively encourages crew to offer <b>safety-related ideas</b> to the office. This communication is promoted using <b>staff competitions or individual awards</b> .	5.1.5, 9.1, 9.2	5.5.3	4.4.3	QP04	To be considered.	0
4,3	The company actively seeks <b>modern safety-training</b> material and courses that can be used for <b>on-board</b> and <b>shore-based</b> training.		6,5	6.2.2	4.4.2		Seagull and Videotel are provided.	80
<b>Aver. Score</b>								<b>69</b>

**10 A ENVIRONMENTAL MANAGEMENT**

**AIM** The company implements a plan for the systematic identification and assessment of all sources of marine and atmospheric pollution.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	The company has systems to <b>identify emerging requirements</b> for environmental protection.	The company has identified a source that will provide this information.	6,4	7.2.1	4.3.2	Environmental manual	DNV, Green award and IMO are used.	100
1,2	All effluents discharged are within <b>permitted levels</b> .	Refer to MARPOL Annex I, II, IV, VI, etc., and national/regional limitations, for example, European Union (EU) or US limits.	6,4, 10.3	7.2.1	4.3.2	Environmental manual	Covered by Company's procedures/practices.	100



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1,3	All sources of marine and atmospheric pollution have been systematically identified.	These sources may include funnel emissions (NOx, SOx), garbage, volatile organic compounds (VOC), oil emissions, ballast water, sewage and antifouling paints.	8.1	7.2.1	4.3.1	Environmental manual	Covered by Company's procedures/practices.	100
1,4	An environmental policy has been developed, signed by senior management and distributed widely within the company.	Company policy includes a <b>zero-spill statement</b> . This is conspicuously posted on board ships and in company offices ashore.	2.1	5.1	4.2	Environmental manual	A zero spill statement may be included as a goal	90
2,1	Plans for further reduction of pollutants are under development with defined priorities and a timescale for action.	A formal record of decisions is compiled that notes the monitoring methods and the actions taken.	NA	5.4.1	4.3.3	Environmental manual	Covered by Company's procedures/practices.	100
2,2	The ship operator has a system to identify the actions needed to comply with new regulations.	Compliance with new regulations is included as a specific agenda item in the periodic meetings held by management both on board ship and in the office.	6,4	7.2.1	4.3.2	Environmental manual & Form 069	Management / Shipboard safety meetings agendas to include "Compliance with new regulations"	90
2,3	The company has clearly assigned management responsibility for each environmental issue.	Responsibility for environmental performance is assigned to an appropriate person within shore management.	3.2, 4, 8.3	5.5.1	4.4.1	Environmental manual	Covered by Company's procedures/practices.	100
3,1	The ship operator has a system for auditing and reporting progress on effluent reduction.	Internal audits on the vessels are supplemented by periodic audits from shore management.	12.1	8.2.2	4.5.5	Environmental manual	Covered by Company's procedures/practices.	100
3,2	Pollutant reduction targets are set in the company business plan.	The company sets quantified improvement targets that cover all sources of pollution.	NA	5.4.1	4.3.3	Environmental manual	Covered by Company's procedures/practices.	100
4,1	The company has attained ISO 14001 accreditation.						Issued by DNN and accredited by RVA.	100
4,2	The company has developed and maintains a long-term (a five-year minimum) environmental operations and business plan.	This plan is updated on a regular basis with a formal review at least once each year.		5.4.1	4.3.3	Environmental manual	A formal review to be made at least annually during Management reviews.	100
4,3	Environmental performance is benchmarked across the fleet and against the oil/marine industry as a whole	Performance is monitored at least once per quarter within the company and annually across the industry.		8.2.3	4.5.1	Environmental manual	Benchmarking may be done within the Company quarterly using VIQ deficiencies and with reference to Equasis across the industry.	50
<b>Aver. Score</b>								<b>94</b>

## 10 B ENVIRONMENTAL MANAGEMENT

AIM Comprehensive environmental initiatives and actions are being implemented on board the ships.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	The ship operator has a system to <b>monitor and reduce waste</b> on board all ships in the fleet.	Senior managers promote the use of equipment and practices that minimise waste generation.	1.2.3	8.2.3	4.5.1	Environmental manual	Covered by Company's procedures/practices.	100
1,2	The company has identified areas of <b>performance</b> that will improve environmental care and has developed appropriate action plans.	Formal records are made on board that show proposals for <b>quantifying existing performance</b> and what measures need to be taken to improve performance.	5.1.5, 12.2	5.4.1	4.3.3		Performance for Main engine, Diesel generators and voyage performance are recorded	100
1,3	The ship operator has <b>fleet-wide systems</b> to monitor and ensure compliance with existing company policy.	Senior managers ensure that this monitoring is included within the internal audit process and any nonconformity is addressed.	5.1.5, 9.1, 9.2, 12.1, 12.2, 12.3	5.6, 8.2.2, 8.3,	4.5.3, 4.5.5, 4.6		Covered by Company's procedures/practices.	100
2,1	The company has management systems to ensure <b>environmentally critical equipment</b> is reliable and that adequate levels of spares are carried.		10,3	5.4.1	4.3.3	QP 10 para 5.6	Environmentally critical equipment to be upgraded and spares levels to be included	50
2,2	Each ship has a <b>ballast-water management system</b> and is taking steps to reduce the transfer of unwanted marine organisms.	Refer to the ICS/INTERTANKO "Model Ballast Water Management Plan".	1,2	5.4.1	4.3.3	Form 336	Covered by Company's procedures/practices.	100
2,3	The ship operator has a policy to ensure <b>purchase and supply activities</b> continue to be more environmentally protective.	The company implements waste reduction methods such as <b>purchasing in bulk</b> to reduce packaging volumes, <b>encouraging recycling initiatives</b> and <b>using non-disposable equipment</b> .	NA	5.4.1	4.3.3	Environmental manual	Covered by Company's procedures/practices.	100
3,1	An <b>energy conservation programme</b> is in place and effectively monitored throughout the fleet.	Actions that promote energy conservation are formally recorded and reviewed at the periodic meetings held by senior managers. Any nonconformity should be identified and corrected.	NA	5.4.1, 5.6, 8.3	4.3.3, 4.6, 4.5.3		May be upgraded as per existing practises	90
3,2	The company can demonstrate that it is taking measures to <b>comply with known future legislation</b> .	These should include voluntary fitting of <b>effluent treatment</b> systems.	1.2, 6.4	5.4.1	4.3.3		Not applicable since engines cover Nox emissions	na
3,3	<b>Waste management</b> is undertaken throughout the fleet and on all voyages.	The company has an active and formally recorded programme of waste management as part of the <b>internal audit programme</b> .	NA	5.4.1, 8.2.2	4.3.3, 4.5.5		Covered by Company's procedures/practices.	100

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4,1	Environmental improvements are being factored into <b>new-build design</b> and shipboard operating practices.	Senior managers make every effort to ensure that new vessels are designed with low waste levels and highly efficient plant and equipment to support low energy operation.	NA	5.4.1	4.3.3		Clean class notation is given to ABS classed fleet.	20
4,2	The company addresses <b>environmentally sound ship recycling</b> contracts.		NA	5.4.1	4.3.3		To be considered	0
<b>Aver. Score</b>								<b>76</b>

**11A EMERGENCY PREPAREDNESS AND CONTINGENCY PLANNING****AIM** To improve and test the ship operators' ability to respond to and manage an incident.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	Ship-based and shorebased contingency plans clearly identify roles, responsibilities and record-keeping procedures.	These identified roles include <b>communications and logistics personnel</b> .	8.1, 8.2, 8.3	8.3	4.4.7		Administrative staff (secretarial) may be added in the ERT	90
1,2	Emergency procedures include effective calling systems and communication links for alerting the emergency-response team.	The system should ensure there is <b>24-hour cover</b> that takes account of <b>holidays and work-related travel arrangements</b> .	8.1, 8.3	8.3	4.4.7		Covered by Company's procedures/practices.	100
1,3	There are documented procedures describing shore-based and shipboard contingency plans.	The fleet safety officer/designated person ashore <b>regularly reviews</b> shipboard oil pollution emergency plans (SOPEP) and other appropriate pollution emergency plans <b>in consultation with ships' crews</b> .	5.1.5, 8.1.8, 2, 8.3	8.3	4.4.7		Covered by Company's procedures/practices.	100
2,1	The company provides adequate emergency-response facilities.	This is a <b>dedicated incident room</b> with facilities such as fax and phone connections, computer network points, a whiteboard, satellite or cable television and video.	8,3	8.3	4.4.7		Covered by Company's procedures/practices.	100
2,2	Individuals are <b>trained</b> in their designated emergency-response roles.	Designated, authorised senior personnel receive <b>media training</b> to provide accuracy and control.	8,2	6.2.2	4.2.2		Responsible team is trained by MTI subcontractor.	100
2,3	The company has a system to provide a <b>24hour damage-stability</b> and structural-integrity assessment service.	This is typically provided by an <b>internal body of suitably qualified naval architects</b> , or under contract by a <b>classification society</b> that has the appropriate capabilities.		8.3	4.4.7		Covered by Class.	100
2,4	<b>Lessons learnt</b> from exercises and real incidents are taken into account when updating the emergency-response plans.	The company records lessons learnt, subsequent improvements, corrective actions and resolution.	8.2, 9.1, 9.2	8.5.2, 8.5.3	4.5.3		Provided by Hudson	100
3,1	Stand-ins are included in the planned exercises and drills.	The company maintains <b>lists of participants</b> .	8.2, 8.3	5.5.1	4.4.1		To be included in the procedure.	90

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3,2	Stand-ins are identified and <b>trained for key positions</b> in the response team.	The person coordinating the emergency response has a list of staff, with their contact details, who can stand in for the appropriate key positions.	6.5, 8.2, 8.3	6.2.2	4.4.2		Covered by Company's procedures/practises.	100
4,1	The company has made all the necessary arrangements to use <b>external resources</b> in an emergency.	<b>Contact details</b> for salvage, towing, media consultants and technical departments of classification societies and flag states are readily available.	NA	NA	NA		Covered by Company's procedures/practises.	100
4,2	<b>Outside or additional resources</b> are used to provide more realistic drills and exercises.	These could include the use of training simulators and <b>outside consultants</b> .	NA	NA	NA		HUDSON+DNV +MTI are used.	100
<b>Aver. Score</b>								<b>98</b>

**11B EMERGENCY PREPAREDNESS AND CONTINGENCY PLANNING**

**AIM** To improve and test the ability of ship operators to respond to an incident by holding regular and realistic emergency drills and exercises.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	Incident scenarios for exercises <b>fully test</b> the contingency plans	Planning ensures that scenarios are credible and realistic. The scenarios have <b>varied content and duration</b> .	8.2	8.3	4.4.7	Form 010	Covered by Company's procedures and practises.	100
1,2	A <b>major exercise</b> is carried out <b>at least annually</b> .		8.3	NA	NA		Covered by Company's procedures and practises.	100
2,1	The <b>scope</b> of an exercise is consistent with the size of the fleet and its trading pattern.	A matrix showing the <b>annual</b> exercise plan should be available for comparison with the exercises completed.	NA	NA	NA		Covered by Company's procedures and practises.	100
2,2	The <b>frequency</b> of drills and exercises should be determined by the <b>number of vessels</b> within the fleet.		NA	5.4.1	4.3.3		Covered by Company's procedures and practises.	100
2,3	Results of exercises and drills are documented and analysed to <b>identify lessons learnt</b> .			8.2.3, 8.4	4.5.1	Form 009	Covered by Company's procedures and practises.	100
3,1	Exercises provide a comprehensive <b>test of all communication and mobilisation</b> systems.	To test this, some communication and mobilisation exercises are conducted <b>outside normal office hours</b> .	8.2, 8.3	5.4.1	4.3.3		An annual test outside normal office hours to be documented.	90
3,2	Exercises allow the participation of a significant number of individuals.	Ship staff on leave may be used to play the role of ships' master during an exercise.	NA	NA	NA		Masters on leave may participate.	80
4,1	Drills and exercises test the effectiveness of arrangements to call on <b>external consultants and resources</b> .	External resources are mobilised <b>at least annually</b> . Communications links to external resources are checked regularly during the exercises.	NA	NA	NA		HUDSON is used	100

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Aver. Score

96

**12A MEASUREMENT, ANALYSIS AND IMPROVEMENT**

**AIM** Shore-based management has a structured process for conducting vessel **inspections** to monitor the condition of vessels in the fleet. Detailed reports and close-out plans are maintained ashore. The process includes identification of trends and provisions for promptly closing out any deficiencies that are identified.

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	The company has produced a <b>standardised format or system</b> for performing and recording vessel inspections.	The company adopts a standard format this is used as a basis for all vessel inspections. The format is captured in a checklist and/or procedures are controlled through the company document-control system.	10,2	4.2.4	4.5.4	Form 249	Covered by Company's procedures/practices.	100
1,2	The company has an inspection plan that covers all vessels in the fleet, with <b>at least two inspections per annum of each vessel</b> .	The inspection system is designed to provide a review of the entire fleet on a regular and specified basis.	10,2	5.4.1	4.3.3		Covered by Company's procedures/practices.	100
2,1	The <b>format</b> is of a standard <b>equivalent</b> to the vessel inspection reports issued by industry bodies such as <b>OCIMF or the CDI</b> .	The company adopts an industry-standard format such as OCIMF or CDI as a basis for its vessel inspection system. Alternatively, the company reviews its own format against industry formats and incorporates best practice.	1.2.3.2	5.2	4.3.2	Form 249	Part A of form may be upgraded to a standard equivalent to OCIMF VIQ	50
2,2	The standard format or system records the <b>level of compliance with company and regulatory requirements</b> .	The standard format includes appropriate company and regulatory requirements and the level of compliance. Comments are recorded.	10,2	8.2.3	4.5.2	Form 249	Reference to regulatory (including Flag) or Company requirements may be included.	50
3,1	The company <b>analyses its inspection results</b> and <b>compares</b> them with data from <b>third-party inspections</b> (such as the SIRE or CDI systems) and makes comparisons between vessels within the fleet, particularly with any vessels built to a similar design and specification.	The company regularly compares its own inspection results with those from third parties. Where there are consistent anomalies, the company reviews and improves its vessel inspection process. The company also compares inspection results <b>within its own fleet</b> and <b>between its vessels inspectors</b> .	NA	8.4	4.5.3		Analysis and comparison of inspections between Supts and third parties to be included.	40

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

3,2	The company maintains <b>records</b> that clearly demonstrates the <b>status of the recorded deficiencies through to close out.</b>	The results of inspections are recorded and deficiencies tracked to demonstrate close out. Regular checks are made on the status – of open actions (deficiencies or defects not corrected to the satisfaction of management). <b>A summary of the status</b> is provided to <b>senior management</b> on a <b>quarterly</b> basis. Nonconformity reports could be used.	9.1, 9.2, 10.2	5.6, 8.5.2, 8.5.3	4.5.3, 4.6		Covered by Company's procedures/practices.	100
4,1	Information from the analyses of these inspections is fed into a continuous-improvement process.	Senior managers review the results from the analysis to identify <b>potential weaknesses</b> in the company management system. Improvements to the management system are fed into the company's continuous-improvement process.	9.1, 9.2, 10.2	5.6	4.6		To prepare statistics with results of inspections and categories as per OCIMF VIQ on a quarterly basis.	90
4,2	The results of vessel inspections are analysed to <b>identify trends and common problems.</b>	The <b>results</b> of vessel inspections are <b>tabulated</b> to facilitate analyses and to <b>identify trends and common problems.</b> The company captures, or is considering the capture of, these results within the <b>computer-based database</b> to facilitate analysis.	9.1, 9.2, 10.2	8.4	4.5.3		To prepare statistics with results of inspections and categories as per OCIMF VIQ on a quarterly basis.	60
<b>Aver. Score</b>								<b>74</b>

**12B MEASUREMENT, ANALYSIS AND IMPROVEMENT**

**AIM** The company, has a structured process that allows shore-based management to conduct planned and systematic **audits** of all shore and shipboard locations

Stage	KPIs	Best – practice guidance	ISM	ISO 9001	ISO 14001	COMP. SMS	Remarks	Score
1,1	The company has established a <b>consistent audit format.</b>	The audit procedure covers the key steps in the audit process.	12,3	8.2.2	4.5.5	Forms 097, 358	Covered by Company's procedures/practices.	100
1,2	Auditors are trained under ISM guidelines.	Auditors have undertaken formal training in auditing from a <b>competent body.</b> The company maintains a record of individual attendance and records of audits performed by individuals.	6,5	6.2.2	4.4.2		Covered by Company's procedures/practices.	100
1,3	The company has an <b>audit plan</b> that covers shore and shipboard locations.	The audit system provides a review of the entire organisation and the fleet on a regular and specified basis.	12,3	8.2.2	4.5.5		Covered by Company's procedures/practices.	100

2,1	Audit results are reported as soon as is reasonably practicable.	The company sets an <b>internal performance standard</b> for the <b>time taken from completing the audit to producing and distributing the report</b> . Management conducts <b>spot checks</b> to ensure that this performance standard is being met. Where it is not being met, managers intervene to improve performance.	12.3, 12.5, 12.6	8.2.2, 5.6	4.5.5, 4.6	QP 07	Performance from completion and distribution of internal audit report to be specified in procedure (eg 1 week)	90
2,2	Audits are performed <b>in line with</b> the audit plan.	Management reviews the number of audits performed against the number of audits planned <b>every three months</b> . Where significant slippage has occurred, managers assign appropriate resources to bring performance back into line with the plan.	12,3	6.1	4.4.1		Covered by Company's procedures/practices.	100
3,1	The company maintains records to demonstrate that all actionable items have been <b>closed out</b> as soon as is reasonably practicable.	The results of audits are recorded as nonconformances and tracked through to completion to demonstrate close out of required corrective actions. The company regularly checks the status of open actions and provides a summary to senior management on a <b>quarterly</b> basis. Actions that have not been resolved <b>after three months</b> should be passed to senior management for resolution.	9.1, 9.2, 12.3, 12.6	5.6, 8.5.2, 8.5.3	4.5.3, 4.6		A summary to be distributed on a quarterly basis	90
4,1	Audit results drive continuous improvement of the management system.	Management conducts a formal review of analysis results for <b>common</b> problems. Managers ensure that they identify the <b>true root cause</b> and <b>any potential weaknesses</b> in the company's management system. Improvements to the management system are led into the company's continuous improvement process.	1.2, 5.1.5, 9.1, 9.2, 12.2, 12.5	8.5.1	4.6		Non conformities statistics to be kept according to ISM elements/chapters	50
4,2	The company identifies trends by performing a <b>formal analysis of audit results at least annually</b> .	Results of audits are <b>tabulated</b> to facilitate analysis and the <b>identification of trends and recurring common problems</b> . The company should consider capturing audit results within a <b>computer-based database</b> to facilitate their analyses.	12,2	8.4	4.5.3		Non conformities statistics to be kept according to ISM elements/chapter	50

_____	_____	_____	_____	_____	_____	Aver. Score	85
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Η Αξιολογητική βαθμολογία απεικονίζεται ακολούθως σε συγκεντρωτικό πίνακα **(SCORE PER TMSA ELEMENT TABLE)** για το κάθε Στοιχείο του προγράμματος **TMSA**. Αντίστοιχα, Στατιστικοί διαγραμματικοί πίνακες **(SCORE PER TMSA STAGE ELEMENT TABLE)** δημιουργούνται βάσει των αξιολογητικών αποτελεσμάτων και της κατάταξης ανά στάδιο του προγράμματος **TMSA**.

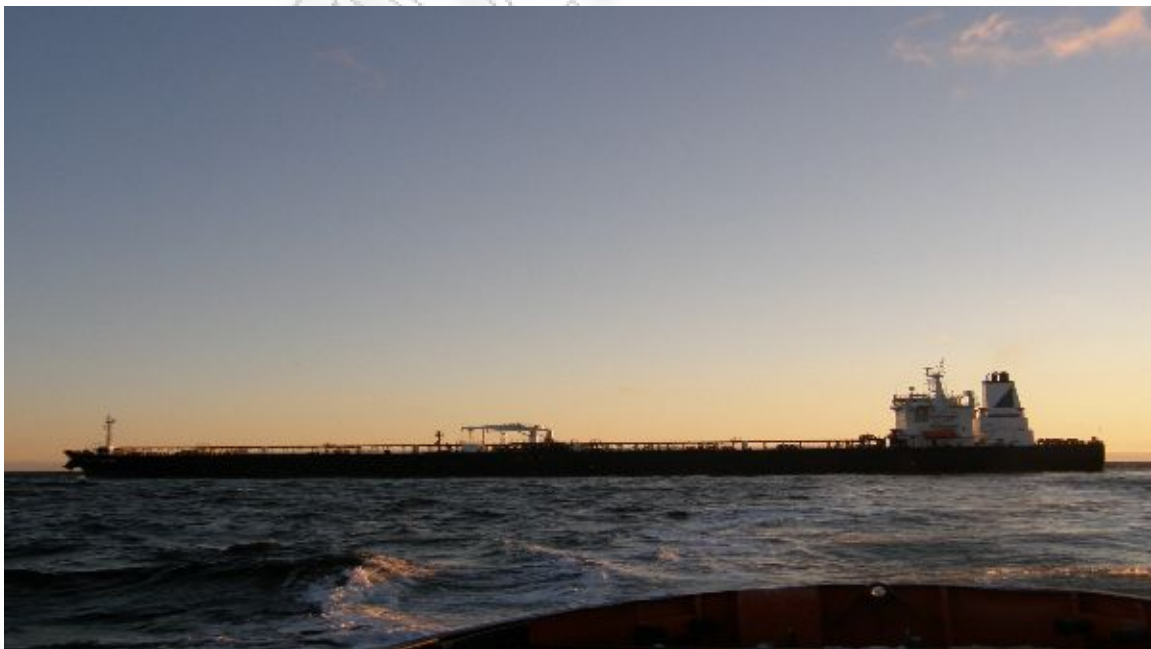
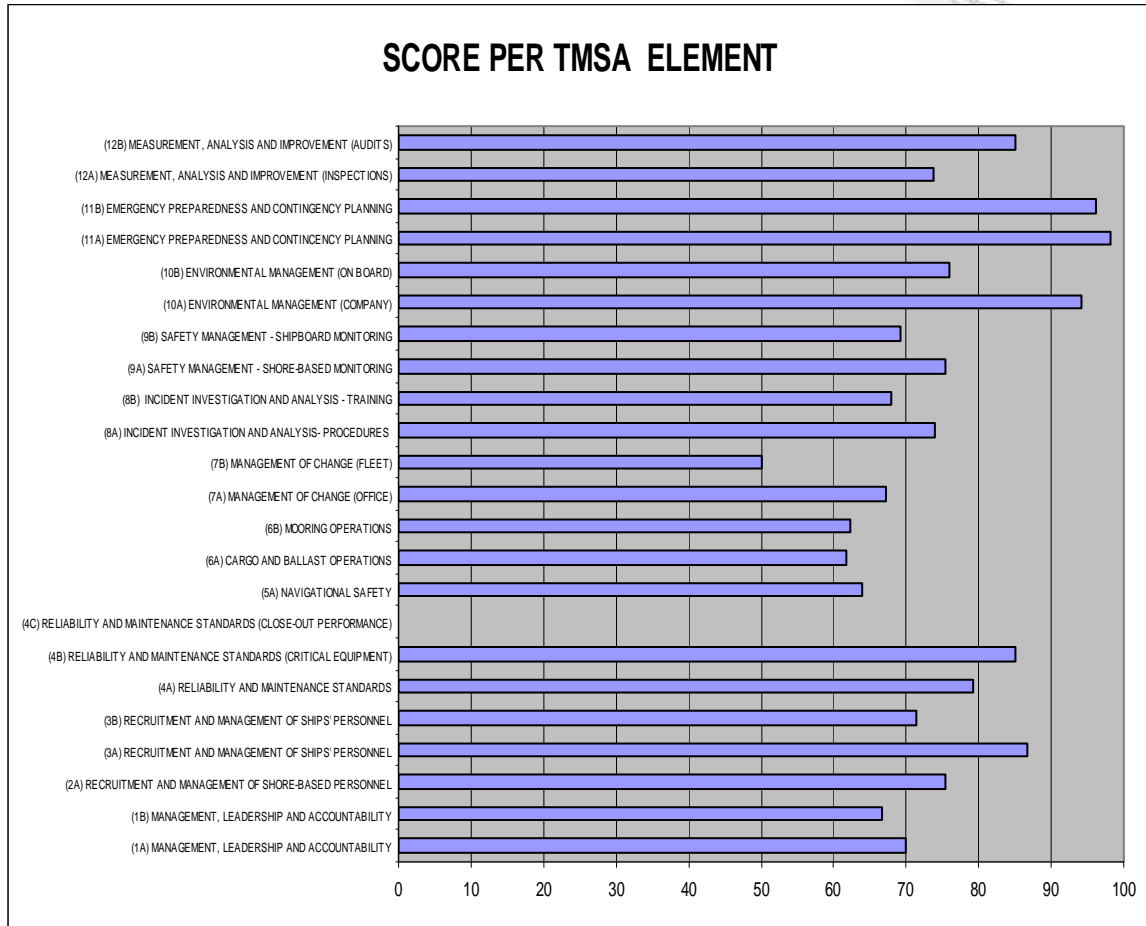
Κατόπιν των διαφόρων αναθεωρήσεων και της υλοποίησης νέων Διαχειριστικών πρακτικών που θα εισαχθούν στο αρχικά εφαρμοζόμενο Σύστημα Ασφαλούς Διαχείρισης, το μετεξελιγμένο Σύστημα θα εμφανίσει νέα μορφή στην επερχόμενη αξιολόγηση.

Τότε, η νέα μορφή, συγκρινόμενη με την παλαιότερη, θα αποτελέσει τον γνώμονα της νέας αυτό-αξιολόγησης, επί της βάσης πλέον της πρόοδου. Η πρώτη περίοδος αυτό-αξιολόγησης οριοθετεί το επίπεδο που βρίσκεται η Διαχειρίστρια Εταιρία και οι επερχόμενες αυτό-αξιολογήσεις καταδεικνύουν την πρόοδο.

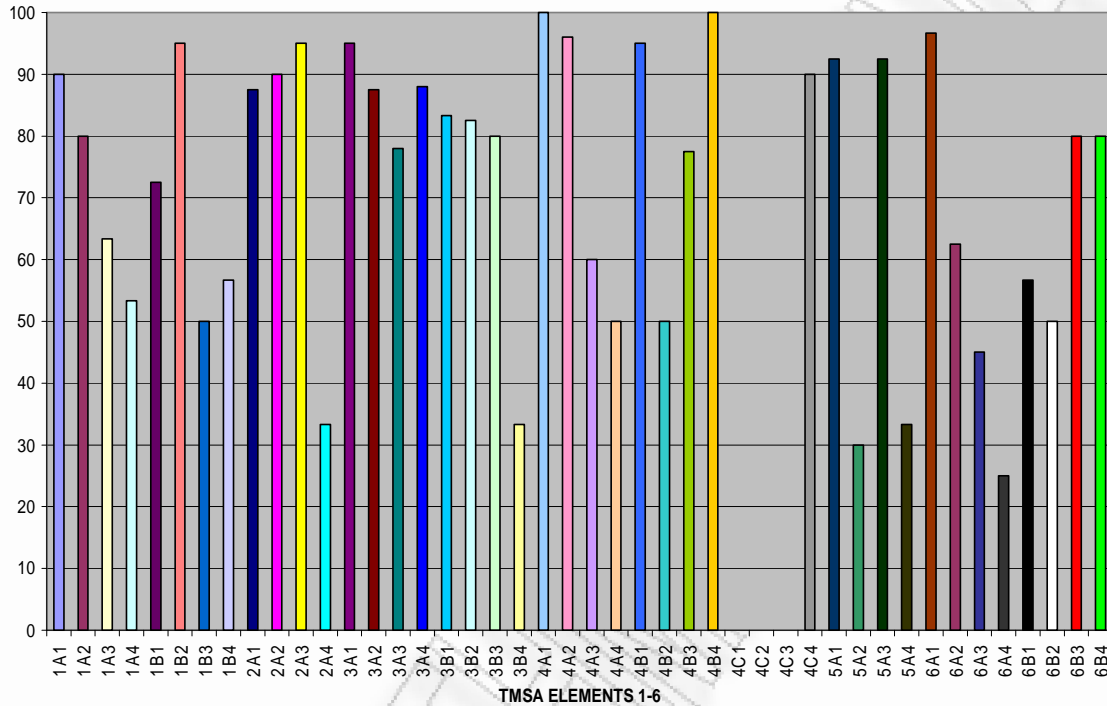
Πρόκειται για μία μονίμως εξελισσόμενη διαδικασία, που ενώ σε μία πρώτη επιφανειακή θεώρηση μπορεί να οδηγήσει στο επιπόλαιο συμπέρασμα της ύπαρξης τεσσάρων επιπέδων που αργά ή γρήγορα θα καλυφθούν, μέσω της υλοποίησης των βελτιωτικών πρακτικών που προτείνονται, όμως στην πράξη και μετά την ολοκλήρωση της αυτό-αξιολόγησης, καταδεικνύει την έκταση της εφαρμογής, τα περιθώρια που εκτείνονται σε κάθε διαδικασία και την ανάκυψη νέων Δεικτών Απόδοσης για κάθε επίπεδο.



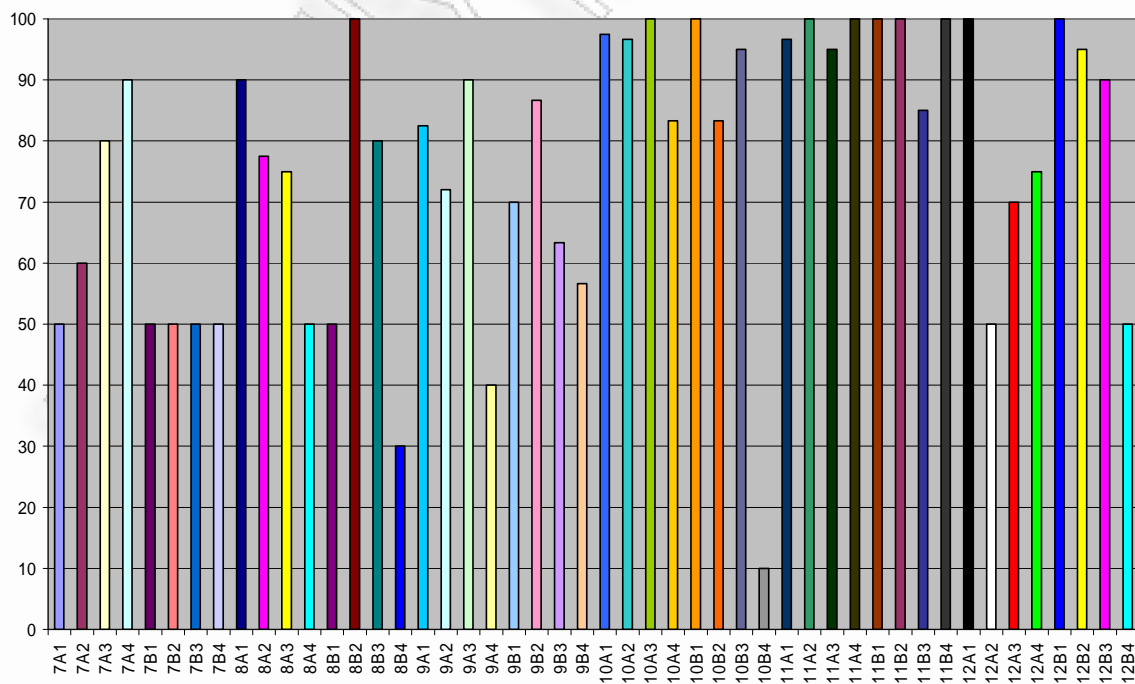
<b>SCORE PER TMSA ELEMENT</b>	<b>SCORE</b>
(1A) MANAGEMENT, LEADERSHIP AND ACCOUNTABILITY	70
(1B) MANAGEMENT, LEADERSHIP AND ACCOUNTABILITY	67
(2A) RECRUITMENT AND MANAGEMENT OF SHORE-BASED PERSONNEL	75
(3A) RECRUITMENT AND MANAGEMENT OF SHIPS' PERSONNEL	87
(3B) RECRUITMENT AND MANAGEMENT OF SHIPS' PERSONNEL	71
(4A) RELIABILITY AND MAINTENANCE STANDARDS	79
(4B) RELIABILITY AND MAINTENANCE STANDARDS (CRITICAL EQUIPMENT)	85
(4C) RELIABILITY AND MAINTENANCE STANDARDS (CLOSE-OUT PERFORMANCE)	0
(5A) NAVIGATIONAL SAFETY	64
(6A) CARGO AND BALLAST OPERATIONS	62
(6B) MOORING OPERATIONS	62
(7A) MANAGEMENT OF CHANGE (OFFICE)	67
(7B) MANAGEMENT OF CHANGE (FLEET)	50
(8A) INCIDENT INVESTIGATION AND ANALYSIS- PROCEDURES	74
(8B) INCIDENT INVESTIGATION AND ANALYSIS - TRAINING	68
(9A) SAFETY MANAGEMENT - SHORE-BASED MONITORING	75
(9B) SAFETY MANAGEMENT - SHIPBOARD MONITORING	69
(10A) ENVIRONMENTAL MANAGEMENT (COMPANY)	94
(10B) ENVIRONMENTAL MANAGEMENT (ON BOARD)	76
(11A) EMERGENCY PREPAREDNESS AND CONTINGENCY PLANNING	98
(11B) EMERGENCY PREPAREDNESS AND CONTINGENCY PLANNING	96
(12A) MEASUREMENT, ANALYSIS AND IMPROVEMENT (INSPECTIONS)	74
(12B) MEASUREMENT, ANALYSIS AND IMPROVEMENT (AUDITS)	85
<b>TOTAL AVERAGE</b>	<b>72</b>



SCORE PER STAGE ELEMENTS 1-6



SCORE PER STAGE ELEMENTS 7-12



4.4 Αναφορά της Ναυτιλιακής Εταιρίας προς τον OCIMF, σχετικά με την πρόοδο της, επί της υλοποίησης του προγράμματος TMSA

**Final Summary Report Document**

Οι ακόλουθοι πίνακες, παρουσιάζουν τα σχόλια που υποβάλλονται – με την μορφή αναφοράς – προς την βάση δεδομένων του OCIMF, ούτως ώστε να αποτελέσουν τον «πήχη» που θα οριοθετεί την κατάσταση του Συστήματος Διαχείρισης της Ναυτιλιακής Εταιρίας και ο οποίος «πήχης» θα πρέπει να υπερβαίνεται, βάσει του περιεχομένου της επόμενης αναφοράς που θα υποβληθεί στο μέλλον.

Element	Stage	Answer	Comments
1A	1.1	YES	Mission Statement, Policies and Procedures, are contained into Company's SMS.
1A	1.2	YES	Management Reviews are performed as per SMS. Summaries of Non-Conformities and Statistics are presented and discussed, during these Reviews and relevant records are being maintained.
1A	2.1	YES	Lessons Learned are being distributed in the Fleet and being discussed during Safety Meetings. Records and Feedback are being kept in the Office. On Quarterly basis or sooner if required, Safety Issues are being circulated to Company's vessels, containing relevant

advice to all Personnel about known incidents/ accidents, together with Safety Tips from the Tanker Industry publications.

On-board Personnel is encouraged to participate and to submit their own ideas and opinions.

1A 2.2 YES On-board Training and in-house Seminars are the main tools to promote Safe Operations.

External Training in Certified Bodies, is being utilised on a case by case basis.

The measurement of each Individual's understanding and enforcing the Policies, is reflected in the flawless operational performance of Company's vessels.

1A 2.3 YES Lessons Learned are being circulated in the Fleet and being discussed on-board during Safety Meetings.

Records and Feedback are being kept in the Office.

On-board Personnel is encouraged to submit suggestions for improvement as well as best practices.

1A 3.1 YES Development of KPI's has been completed.

Records and Measures of more than 100 KPI's are being kept.

Statistical data is available and is being updated constantly.

1A 3.2 YES Key steps are clearly Defined and Documented within the Company's SMS.

			Clear Time frames and Targets are being set for all KPI's.
1A	3.3	YES	A Code of Conduct has been developed for Shore staff and Senior Shipboard staff.  Company's practices demonstrate Strong Leadership.
1A	4.1	YES	Management meetings are being held Bi-Annually.  Whenever extra concern arises on Environmental and Safety aspects, additional meetings are being held accordingly.  When Progress is less than estimation, Staff intervene to realign the Performance with the set Targets.
1A	4.2	YES	During Management meetings, a review of Performance over Safety Targets is being carried out against KPI's.  Staff monitors the Status regularly using KPI's and reports the findings to Senior Management.
1A	4.3	NO	Managers and Supervisors lead by example.  A Bonus is awarded to Ships Staff, following a successful Vetting Inspection.  Crew Bonuses are granted for good performance and flawless operations.  An award is given also as a recognition, to the one vessel among the Fleet, which on a yearly basis appeared to have less LTI and LTRCF incidents.  Existing Awards procedure can be revised, to include further

			rewards.
1B	1.1	YES	A Document Control System is in operation to ensure that only the current Management System Documentation is available on-board the vessels and Company's offices.
1B	1.2	YES	<p>Company follows a strict procedure, concerning Internal Controlled Documents. It is clearly defined, how these documents and relevant data are prepared, reviewed, approved and distributed.</p> <p>Senior Management is involved into the approval process of SMS Manuals.</p> <p>SMS Manuals are available to shore and on-board staff, as well as to Manning Agents.</p>
1B	1.3	YES	This particular Stage is fully covered by Company's procedures.
1B	1.4	YES	<p>Policies for Occupational Health, Safety, Quality and Environmental Protection have been established, covering the scope of all the activities undertaken by the Company.</p> <p>These policies are being reviewed during Shipboard Safety Meetings and Management reviews.</p> <p>Relevant Company Certification and Qualification can be presented in this space as evidence.</p>
1B	2.1	YES	Important items, which are included into Company's SMS are

listed through a numerical and alphabetic order, making it easy for each step to be identified.

Data forms and Checklists are being developed to facilitate the execution of all Tasks in a sequential order.

1B	2.2	NO	Revision of Procedures is being carried out according to Company's SMS but NOT during Formal Revision Meetings. However, the Management Meeting Agenda, includes the review of Changes, Revisions and Additions.
1B	3.1	YES	Lessons Learned from Incidents, Non-Conformities, Near-Misses, Vetting Audits, PSC Inspections, Third Party Inspections, along with comments and Fleet performance, are being distributed on-board the Company's vessels.
1B	3.2	YES	SMS procedures are developed with the participation of shore Staff.  Shipboard Staff may participate if and when will be required. Master's review, as well as master's suggestions for improvements, are the main shipboard tools.
1B	3.3	YES	Clear roles and responsibilities are defined within the SMS, mainly through existing Organization Charts, Job Descriptions and an Accountability Interrelation Matrix.
1B	4.1	YES	The Company benchmarks SMS practices, against other Companies and vessels throughout industry's information



sources and data sheets.

“Paris MOU” inspection data, USCG PSC data, SIRE statistics, are among those information sources.

Benchmarking is evidenced through Company’s participation into voluntary schemes and codes, such as Green Award, ISO 9001, ISO 14001.

1B 4.2 NO

A formal plan to identify checks and measures, which shall ensure that the SMS is functioning effectively, is under development.

Effectiveness of the SMS is currently ensured through various KPI’s, which were recently established.

Progress against what is planned, is assessed by Internal Audits, and results are discussed during the Bi-Annually Management meeting.

1B 4.3 YES

Company has recently been Certified by the Classification Society in accordance with OHSAS 18001.

In the course of this Certification, a Company’s “Health, Safety, Security and Administrative Manual” was prepared to ensure safe and correct working conditions, on board and in the Office.

Managers are responsible for a close monitoring over all planned improvements.

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

2A	1.1	YES	Induction Plan and Records are maintained within the Company.  Induction covers policies, including Safety, Health, Environment, Quality, Business and Cultural Discrimination awareness.
2A	1.2	YES	Company's Job Retention raises for key Staff, over 95% during the last two years period.
2A	1.3	YES	This particular Stage is fully covered by Company's procedures.
2A	1.4	YES	The Company's recruitment process includes checking of the Certificates along with verification of Qualification through the Issuing Authority.
2A	2.1	YES	All Staff is appraised on an Annually basis, as it's been documented into Company's SMS.
2A	2.2	YES	Documented into Company's SMS.
2A	2.3	YES	The Company maintains up-to-date records for Training Courses and Qualifications.
2A	3.1	YES	Documented into Company's SMS.
2A	3.2	YES	The different levels of Resources are reviewed during the Management reviews, in order to ensure that there will be no shortage in Resources.
2A	4.1	NO	The Company should occasionally support Personnel on

			taking higher education courses.
2A	4.2	YES	Documented into Company's SMS.
2A	4.3	NO	Senior Officers visit the Office and assist in the work of Company's Departments.  There is no rotation within the departments, in order Individuals to improve their understanding over maritime Operations.
2A	4.4	NO	THE Company promotes interpersonal skills' training, by sending Shore and Ship Staff to any Seminars conducted in the Industry.  Recent example was the participation in the "Behaviour Management" seminar, by a number of Employees.
3A	1.1	YES	This particular Stage is fully covered by Company's procedures.
3A	1.2	YES	Documented into Company's SMS.
3A	1.3	YES	In addition to pre-employment D&A tests, unannounced D&A tests are carried out Bi-Annually.  All crew is unannounced tested on-board for alcohol abuse on a monthly basis.
3A	1.4	YES	The Company checks the authentication of Ship Personnel Certificates, through the procedure being Documented into Company's SMS and relevant records are kept in Crew

			Department.
			The Company enforces a System of checking that the Certificates comply with the Issuing Authority and STCW requirements.
3A	2.1	YES	Appraisal Reports include Safety and Environmental awareness, ability and personal effort.  Appraisal is conducted Quarterly every year as a minimum and Seafarers are allowed to review the Appraisal Report.
3A	2.2	YES	Company procedures are covered by the Manning Agencies.  The Seamens' competency is communicated to the Manning Agencies, who are obliged to carry out frequent Crew Quality checks.
3A	2.3	YES	Company has an extended recruitment and interview process for all Officers.  Final interviews before recruitment are conducted at head Office and are fully documented.
3A	2.4	YES	Documented into Company's SMS.  Minimum Seafarer's criteria include, age profile, sea experience and other Qualification such as Medical examination, ability to communicate in a common language (English) and PC knowledge.
3A	2.5	YES	New procedure for housekeeping and hygiene, particularly in

			food storage and preparation, has been introduced and included to Company's SMS.
3A	3.1	YES	<p>Company procedure has been revised and now Master's and CH/Engineer's appraisal is required to be carried out, during on-board visits and briefing/de-briefing to be held in the Office.</p> <p>The assessment includes training requirements development and objectives.</p> <p>Relevant records are kept.</p>
3A	3.2	YES	<p>Re-education and training priorities are been given, whenever evidence of human error contributes to incident occurrence on-board.</p> <p>Disciplinary process is being documented within Company's "Health, Safety, Security and Administrative Manual"</p>
3A	3.3	YES	<p>Documented into Company's SMS.</p> <p>Manning Agents are audited at least annually and relevant records are kept.</p>
3A	3.4	YES	<p>Annual audits are conducted on Company's Crew Department by external Personnel, in order to be evaluated whether crew selection and recruitment complies with established Policies and Procedures.</p>
3A	3.5	YES	<p>Addition of a new procedure in terms of living and working</p>

			on-board.
			Instructions and advises for working under extreme or adverse conditions is included, as well as healthy dieting, exercising and resting properly.
3A	4.1	NO	Psychometric assessments are not implemented yet.  Video Training on-board, in-house Training with the use of Simulators and on-board lectures are used to confirm job competence.  In addition “Competence Manager” programme is used to assess the job competence of Seafarers.
3A	4.2	YES	This particular Stage is fully covered by Company’s procedures.
3A	4.3	YES	Documented into Company’s SMS.
3A	4.4	NO	Risk Assessments for Physical Hazards and Human Factor are being carried out.  Inventorying of Hazardous Materials is in progress.
3A	4.5	YES	Documented into Company’s SMS.
3B	1.1	YES	Addition of a new procedure in terms of living and working on-board.  Instructions and advises are included, regarding the quality of living, food, accommodation, rest, recreation facilities, hygiene, medical care, air conditioning and spare time

			activities.
3B	1.2	YES	Documented into Company's SMS.
3B	1.3	YES	A Matrix, presenting Time Frames on Crew training has been added to Company's procedures, in order to ensure that training is undertaken within specified time.
3B	2.1	YES	Initial and refresher seminars are provided through Company's in-house training centre.  Manning Agents are providing relevant training to foreign Staff.
3B	2.2	YES	Documented into Company's SMS.
3B	2.3	YES	Documented into Company's SMS.  The required training is linked to the Crew appraisal system.
3B	2.4	YES	Company runs ISO certified training centre abroad, for foreign Officers.  On-board, Seamen attend CBT programme (Computer Based Training) and ashore – into Company's premises – they go through VOD training series (Video On Demand), as well as participating in the scheduled in-house training courses.
3B	3.1	YES	Documented into Company's SMS.
3B	3.2	YES	Retention rate of senior Officers is above 80%.
3B	3.3	YES	Documented into Company's SMS.
3B	3.4	YES	Documented training provided to Seafarers, exceeds STCW

			minimum requirements for all Company's Seafarers.
3B	4.1	YES	Shore assignments are used to provide assessment before promotions.  Opportunity can be given in gaining experience, by working part time within the Office.
3B	4.2	NO	80% not yet achieved, due to recent Fleet expansion.
3B	4.3	YES	All Officers attend Company scheduled seminars, at least once per year, mainly during the pre-employment period.
4A	1.1	YES	This particular Stage is fully covered by Company's procedures.
4A	1.2	YES	Company's "Planned Maintenance System" is installed on all vessels.  It's a computerized PMS, approved by Classification Society and on-line with the Office.
4A	1.3	YES	Vessel's Status and Condition Of Class (CoC) items are closely monitored and promptly dealt with, by the Office Staff.
4A	2.1	YES	This particular Stage is fully covered by Company's procedures.
4A	2.2	YES	All the required maintenance and relevant records are being scrutinized, during the frequent Superintendents' visits on-board the Fleet.



4A	2.3	YES	This particular Stage is fully covered by Company's procedures.
4A	2.4	YES	Documented into Company's SMS.
4A	2.5	YES	The maintenance reporting system, automatically alert the responsible personnel, as soon as the maintenance on board becomes "due".
4A	3.1	YES	Spare Parts' inventory is kept electronically through PMS, automatically updated and highlighted when there is any shortage.
4A	3.2	YES	This particular Stage is fully covered by Company's procedures.
4A	3.3	YES	Outstanding maintenance defect items are monitored by Shore Management in a common database through PMS, to allow the monitoring of each vessel's performance, within the Fleet.
4A	4.1	NO	A shipyard repair list is not automatically generated, but is formed whenever there is a relevant task.
4A	4.2	YES	Inventory list for critical spares is based on practical experience and Classification Society recommendations.  This list is NOT based upon a hazard identification system.
4A	4.3	NO	Records are available to demonstrate the performance monitoring of M/E and Auxiliary equipment.  Devices for measuring vibration and infrared thermometers,

			are available on-board the vessels.
4B	1.1	YES	This particular Stage is fully covered by Company's procedures.
4B	1.2	YES	This particular Stage is fully covered by Company's procedures.  All items listed, are identified into the PMS.
4B	2.1	NO	Critical Systems and Equipment are clearly identified and listed.  However, the identification procedure, through a risk assessment method is NOT yet fully implemented and relevant records are limited.
4B	3.1	NO	During work planning meetings, a risk assessment is being carried out in practice, for the routine planned maintenance of critical equipment.  However, relevant records are limited.
4B	3.2	NO	Such parameters are always a very crucial part of the consideration in order to follow a "go / no go" decision.  A formal risk assessment is NOT yet in place, for situations like these.
4B	3.3	YES	Documented into Company's SMS.  Critical systems and equipment are treated as top priority items, into Company's PMS.

4B	3.4	NO	The minimum specific competency standards are defined into Company's SMS, as per Classification Society's requirements for unmanned Machinery Spaces.
4B	4.1	NO	<p>Present PMS is based upon and modified when necessary, over the condition and performance feed-back of the equipment.</p> <p>Such results are discussed during the frequent Superintendents' meetings and are used for the modification of maintenance intervals.</p> <p>Relevant records are NOT fully documented.</p> <p>However, historical / statistical data are used, to forecast the necessary maintenance of Critical Equipment.</p>
4B	4.2	YES	Full compliance.
4B	4.3	YES	Documented into Company's SMS.
4C	1.1	YES	The number of Outstanding PMS tasks across the Fleet, varies between 2% - 6%.
4C	2.1	YES	Same as above.
4C	3.1	YES	Same as above.
4C	4.1	NO	The number of Outstanding PMS tasks across the Fleet, varies between 2% - 6%.
5A	1.1	YES	On-board Navigational Audits are conducted by shore Staff, once per year for each vessel.

			The results of these audits are monitored.
5A	1.2	YES	The DPA and the Marine Superintendents, are the Identified shore-based Staff for maintaining Nautical Standards on-board the vessels.
5A	1.3	YES	Documented into Company's SMS.
5A	1.4	YES	Documented into Company's SMS.
5A	2.1	YES	Documented into Company's SMS. There are procedures to ensure proper notification, when Critical Equipment fails.
5A	2.2	YES	Company uses all available feedback, to improve the Navigational practices.
5a	2.3	YES	Company's Navigational procedure has been lately revised, to include the requirement for the Masters to carry out Navigational Audits quarterly per year. These Audits are formally recorded.
5A	2.4	YES	Two different Chart suppliers are used for the provision of Paper and Electronic Charts.
5A	3.1	YES	There is a programme for the gradual implementation of Electronic Chart systems on-board all Company's vessels. 85% of the Fleet is already equipped with ECDIS and on-board these vessels a full set of Electronic Charts is maintained up-to-date.

5A	3.2	YES	<p>Promotion is achieved by supervised and evaluated practice on similar vessels.</p> <p>Sea service on similar vessels is a pre-requisite.</p> <p>BRM and Ship-handling training are included into the mandatory Master's training.</p>
5A	3.3	YES	<p>Bridge Team training is compulsory for all Deck Officers.</p> <p>Refresher training is being provided through a three-year period for each Officer.</p>
5A	3.4	YES	<p>Documented into Company's SMS.</p>
5A	4.1	YES	<p>All inputs received by various accredited bodies (oil Majors, PSC, Internal/External Audits), are taken into consideration and are being analysed to identify weak areas and to undertake the appropriate actions for problem resolving.</p>
5A	4.2	YES	<p>Random Navigational Audits are being conducted by suitably qualified external personnel, at 50% of the Fleet annually.</p> <p>In this way, within a two-year period, all the company vessels will have been audited.</p>
5A	4.3	YES	<p>Bridge Team training is compulsory for all Deck Officers.</p> <p>Various training centres are acquired to provide relevant training.</p> <p>Refresher training is being provided through Company's in-house simulator training centre.</p>

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

6A	1.1	YES	Documented into Company's SMS.
6A	1.2	YES	CH/O is responsible for the implementation of cargo and ballast procedures.  Manning on-board the Fleet is exceeding the minimum Safe Manning requirements.
6A	1.3	YES	Documented into Company's SMS.  Strict compliance to ISGOTT requirements.
6A	2.1	YES	Documented into Company's SMS.  Class approved Stability booklet is in use.
6A	2.2	YES	In co-operation with Classification Society, Company has prepared and introduced ship-specific "Hull Inspection Manuals".  With the assistance of those Manuals and the implementation of PMS, Cargo and Ballast spaces are being inspected by the crew and spaces integrity is maintained.
6A	2.3	YES	All the Computerized Stability and Loading Programmes have been approved by the Classification Society.  Tests on these Programmes are carried out by Shipboard personnel every three months.
6A	2.4	YES	Documented into Company's SMS.  High and High – High level alarms are provided into ALL Cargo Tanks, for the monitoring of the level of liquids inside

			the Tanks.
6A	3.1	YES	On-line Gauging is provided on board ALL Fleet vessels.
6A	3.2	YES	Appraisal reports are revised to ensure the participation of Junior Officers, into Cargo and Ballast operations.
6A	4.1	NO	The Company closely monitors the development of innovative technology of the Industry, working proactively in co-operation with yards (on new building vessels) and with Equipment manufacturers.
6A	4.2	YES	Further training to “Tanker Operations” is provided through various Computer based training modules, on Board the vessels and in Company’s premises.  Liquid Cargo Simulator has been installed into Company’s in-house Training Centre and a new seminar “Liquid Cargo Handling” has been added to the training programme.
6B	1.1	YES	Documented into Company’s SMS.
6B	1.2	YES	Documented into Company’s SMS.
6B	1.3	YES	Documented into Company’s SMS.  Full compliance with OCIMF requirements.
6B	2.1	YES	Documented into Company’s SMS.
6B	2.2	YES	Documented into Company’s SMS.
6B	2.3	YES	Company’s SMS contains Criteria for the replacement of mooring wires, ropes and tails.

## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

6B	3.1	NO	<p>Formal Risks Assessments are carried out.</p> <p>However, only the new vessels in the fleet are equipped with self-stowing drums, which can be operated from remote stations, in order to reduce the risk of injury.</p>
6B	3.2	YES	<p>Documented into Company's SMS.</p> <p>Reference has been in-putted to Industry's guidance.</p>
6B	4.1	NO	<p>Boatswain's store room, stationed forward on all fleet vessels, where the power supply of mooring devices is installed, is not equipped with automatic gas detection equipment.</p> <p>However, strict procedure exists into Company's SMS, for the manually measurement of Boatswain's store room atmosphere, each time this space is visited by the crew.</p>
7A	1.1	YES	<p>Company's procedure "Change of Management", clearly defines the level of Authority required for the approval of a change.</p>
7A	1.2	YES	<p>Company's procedure "Change of Management", is documented into Company's SMS.</p>
7A	2.1	YES	<p>HAZID (Hazard Identification) method has been used by the Company to conduct relevant Risk Assessments.</p> <p>It is fully documented for the most routine and non-routine tasks.</p>
7A	2.2	YES	<p>Requirements are identified and relevant training ios being</p>



			given.
7A	2.3	YES	Requirements are identified and relevant training ios being given.
7A	2.4	NO	Hand-over procedures are being implemented formally for Master, CH/Engineer and CH/Officer on board the Fleet.  Documented Hand-over procedures should be expanded, to include Shore personnel as well.
7A	2.5	YES	A documented Familiarisation process for both Shore-based Staff and ships' crew is available and being followed accordingly.
7A	3.1	NO	All applicable drawings, procedures and other technical documents are updated, following any amendment or modification.  However there is not yet in place, a documented system to initiate and control the flow of information.
7A	3.2	YES	Familiarisation is provided for crew and Superintendents, whenever a new acquired vessel is entered into Company's Fleet.
7A	4.1	NO	The annual review of impact of all changes to the Ship Operator's roles and responsibilities, is made during the Management meetings, but it's NOT fully documented.
7A	4.2	NO	NOT documented into Company's SMS.

7B	1.1	YES	Documented into Company's SMS.
7B	2.1	YES	Every proposed change is reviewed, assessed, and approved, during Master's and/or Operator's review.
7B	3.1	NO	Although it's documented into Company's SMS, records are still limited, as "Change of Management" procedure has been recently implemented.
7B	3.2	NO	Formal Risk Assessment is implemented. However, full implementation records are NOT available.
7B	4.1	NO	Although it's covered by Company's SMS, records are still limited.
7B	4.2	NO	Although it's covered by Company's SMS, records are still limited.
8A	1.1	YES	Documented into Company's SMS.
8A	1.2	YES	Documented into Company's SMS.
8A	2.1	YES	Documented into Company's SMS.
8A	2.2	YES	This requirement is applied for Shore based investigators. Investigation on-board is applied by the master, or an Officer (usually the Safety Officer), as appointed by the Master of the vessel.
8A	2.3	YES	This particular Stage is fully covered by Company's procedures.
8A	2.4	YES	Incident / Accident information bulletins as well as the

			quarterly “Company’s Safety Bulletin”, are being circulated on board the Fleet.
8A	3.1	YES	Documented into Company’s SMS.
8A	3.2	YES	Documented into Company’s SMS.
8A	4.1	YES	Documented into Company’s SMS.
8A	4.2	YES	Documented into Company’s SMS.
8B	1.1	YES	In-house Seminars are being offered at least annually for each Officer.  Additionally an internal briefing is being given to Senior Officers, during the on-joining / Familiarisation period.  Specialised training for “Accident / Incident investigation” is provided.
8B	2.1	YES	Currently an adequate number of Office staff has attended such seminar.
8B	3.1	YES	Documented into Company’s SMS.
8B	3.2	YES	Documented into Company’s SMS.
8B	4.1	NO	Refresher training is provided.  This procedure is NOT yet fully documented into Company’s SMS.
9A	1.1	YES	Documented into Company’s SMS.  Average frequency is every six months.
9A	1.2	YES	Findings are documented into Superintendents “Attendance

			Reports” on-board, as well as Office’s Database system.
9A	1.3	YES	During the bi-annual ship-visits by Marine Superintendents, Safety Committee Meetings are carried out, for the evaluation of crew awareness and compliance over the Company procedures and policies.
9A	1.4	YES	Documented into Company’s SMS.
9A	2.1	YES	A Risk Assessment is made over all routine and non-routine operations. Special “tool” is being used for this procedure.
9A	2.2	YES	Official records of all Risk Assessments are reviewed by the DPA and are kept in a specific file.
9A	2.3	NO	This particular Stage is partially covered by Company’s procedures. Records are still limited, as “Change of Management” procedure has been recently implemented.
9A	2.4	NO	This particular Stage is partially covered by Company’s procedures. Records are still limited, as “Change of Management” procedure has been recently implemented.
9A	2.5	NO	This particular Stage is partially covered by Company’s procedures. Records are still limited, as “Change of Management”

			procedure has been recently implemented.
9A	3.1	YES	The review is made during Management meetings.
9A	3.2	NO	Risk Management procedure has recently been implemented on the vessels.  Yet is NOT tested.
9A	3.3	YES	Accidents, Incidents and Near-misses investigation reports, along with the quarterly “Company’s Safety Bulletin”, are being circulated on board the Fleet, in order to assist in reducing the operational risks.
9A	3.4	YES	This practice is being applied in the same framework as Superintendents on-board attendances.
9A	4.1	YES	The company maintains a computerised database of Ship-generated and shore-generated Risk Assessments.
9A	4.2	YES	Selected items from Industry press as well as safety tips or Accident / Incident “lessons learned” form the quarterly “Company’s Safety Bulletin”, being circulated on board the Fleet
9B	1.1	YES	Documented into Company’s SMS.
9B	1.2	YES	Documented into Company’s SMS.
9B	1.3	YES	Documented into Company’s SMS.
9B	1.4	YES	Risk Assessment method is being applied on all Fleet vessels.
9B	2.1	YES	Documented into Company’s SMS.

9B	2.2	YES	Documented into Company's SMS.
9B	2.3	YES	Special "tool" is being used for this procedure.  Officers are being trained over this method, during the pre-joining familiarisation period.
9B	3.1	YES	Documented into Company's SMS.
9B	3.2	YES	Documented and Practiced into Company's SMS.
9B	3.3	YES	The Company provides in-house training courses IN EXCESS of Statutory requirements.  Selected crew members are sent for extra training.
9B	4.1	YES	Documented and Practiced into Company's SMS.
9B	4.2	NO	There is "room" for discussion over these matters during the Safety Committee Meetings.  An award system is under consideration.
9B	4.3	YES	Industry's market is being monitored for relevant material.  Appropriate training material is being regularly supplied to Company's vessels.
10A	1.1	YES	International and National legislation and publications are being monitored.  Main sources to legislation are Industry's instructions.
10A	1.2	YES	Documented into the "Environmental Management System Manual".  Company is ISO 14001 Certified.

10A	1.3	YES	Documented into the “Environmental Management System Manual”.  Company is ISO 14001 Certified.
10A	1.4	YES	An Environmental Policy is being included into Company’s SMS, which defines a ZERO-spill Statement.
10A	2.1	YES	Documented into the “Environmental Management System Manual”.
10A	2.2	YES	Documented into the “Environmental Management System Manual”.  Periodic meetings are held by Management on-board.  Into Company’s Agenda, the item “compliance with new regulations” is included.
10A	2.3	YES	Documented into the “Environmental Management System Manual”.
10A	3.1	YES	This particular Stage is fully covered by Company’s procedures.
10A	3.2	YES	This particular Stage is fully covered by Company’s procedures.
10A	4.1	YES	Company is ISO 14001 Certified by Classification Society by 2003.
10A	4.2	YES	This particular Stage is fully covered by Company’s procedures.

10A	4.3	NO	This particular Stage is partially covered by Company's procedures.
10B	1.1	YES	This particular Stage is fully covered by Company's procedures.
10B	1.2	YES	Areas for improvement and plans are in place. M/E, Diesel Generator and Voyage performance are being recorded.
10B	1.3	YES	This particular Stage is fully covered by Company's procedures.
10B	2.1	YES	Environmental critical equipment is included into Company's PMS. Adequate quantities of spares are carried on board the fleet and are being monitored.
10B	2.2	YES	Ship specific approved "Ballast Management Plan", on every vessel.
10B	2.3	YES	This particular Stage is fully covered by Company's procedures.
10B	3.1	YES	Fuel, Lubricants and Waste are managed and maintained, with a specific target on reduction of emissions. Additionally, energy conservation is effected through waste recycling.
10B	3.2	YES	Ships outfit EXCEEDS legislation requirements and



			Industry's standards.
10B	3.3	YES	This particular Stage is fully covered by Company's procedures.
10B	4.1	YES	This particular Stage is included in new building ships.
10B	4.2	YES	Clean Class notation as well as "Green Passport", will be given in new building ships, as per OCIMF and IMO requirements.
11A	1.1	YES	Documented into Company's SMS.
11A	1.2	YES	Documented into Company's SMS.
11A	1.3	YES	DPA regularly reviews SMPEP and VRP, in consultation with vessels' crews.
11A	2.1	YES	Company retains a fully equipped Emergency Response room.
11A	2.2	YES	Responsible Shore-based team is trained accordingly. Media response world-wide coverage has been contracted.
11A	2.3	YES	Contracts with Classification Society are available.
11A	2.4	YES	This particular Stage is fully covered by Company's procedures.
11A	3.1	YES	Company maintains records of participants on drills and exercises on board the Fleet.
11A	3.2	YES	This particular Stage is fully covered by Company's procedures.

11A	4.1	YES	Documented into Company's SMS.
11A	4.2	NO	Various accredited bodies can be used. Method of acquisition still in progress.
11B	1.1	YES	Documented into Company's SMS.
11B	1.2	YES	A major emergency response drill is undertaken once a year.
11B	2.1	YES	Documented into Company's SMS.
11B	2.2	YES	Drills application is Fleet wise. It is affected by Statutory and certain training needs.
11B	2.3	YES	Documented into Company's SMS.
11B	3.1	YES	Documented into Company's SMS.
11B	3.2	YES	Documented into Company's SMS.
11B	4.1	YES	Documented into Company's SMS.
12A	1.1	YES	A standard format is used as a basis on all inspections.
12A	1.2	YES	Documented into Company's SMS. At least two inspections, per year, per vessel.
12A	2.1	YES	Company's customised form is being used, equivalent to OCIMF VIQ.
12A	2.2	NO	Level of compliance NOT recorded. Comments / evaluation of inspections are required.
12A	3.1	NO	Under development. However, Vetting inspections' data are cross checked with the remarks from Superintendents' on-board attendances.

12A	3.2	YES	All deficiencies are recorded into a data base being accessible by Senior staff.  Regular checks are made on the status of “open actions”.
12A	4.1	YES	Inspection findings are analysed and relevant amendments are being made to the SMS.
12A	4.2	NO	All deficiencies are recorded into the Office data base being accessible by Senior staff.  However, the relevant statistics are under development.
12B	1.1	YES	Documented into Company’s SMS.
12B	1.2	YES	Documented into Company’s SMS.
12B	1.3	YES	Documented into Company’s SMS.
12B	2.1	YES	Audit reports are submitted to the Office, within two days after the audit.
12B	2.2	YES	This particular Stage is fully covered by Company’s procedures.
12B	3.1	YES	Documented into Company’s SMS.  DPA is responsible for the enforcement of the procedure.
12B	4.1	YES	Formal review of Analysis results, normally is made during the Management meetings.
B	4.2	NO	Formal analysis of Audit results, normally is made during the Management meetings.

Elements	1		2		3		4			5		6		7		8
	Management, leadership and accountability		Recruitment and management of shore based personnel		Recruitment and management of ship's personnel		Reliability and maintenance standards			Navigational safety		Cargo, ballast and mooring operations		Management of change		Incident investigation and analysis
Stages	a	b	a		a	b	a	b	c	a	a	b	a	b	a	
Stage 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2	2		2	2	2	2			2
		3	3	3	3	3				3	3	3				
		4	4	4						4						
Stage 2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2				2	2	2	2			2
	3		3	3	3	3				3	3	3	3			3
				4	4	4				4	4			4		4
				5		5								5		
Stage 3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2			2	2	2	2	2	2	2
	3	3		3	3	3	3			3						
				4	4		4			4						
				5												
Stage 4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	2	2	2	2	2	2	2			2	2		2	2	2	2
	3	3	3	3	3	3	3			3						
			4	4												
			5													
Totals	2,3	2,83	3,25		3	2,99	2,33	1,91	3	3,41		3	2,5	1	1	4
Grand Total	66															

Note: Element stages shaded with RED colour are those answered YES.

## 5. ΠΡΑΚΤΙΚΗ ΕΡΓΑΣΙΑΣ ΕΠΙ ΤΟΥ ΠΡΟΓΡΑΜΜΑΤΟΣ TMSA

(Παραδείγματα επίτευξης των θεσπισμένων Κύριων Αντικειμενικών Σκοπών, μέσω της χρήσης μερικών από τους Βασικούς Δείκτες Απόδοσης)

### ELEMENT 3B

#### RECRUITMENT AND MANAGEMENT OF SHIPS' PERSONNEL

Stage : 3,2

**KPI :** The company achieves an **80% retention rate** for **senior officers over a two-year period.**

**Best – practice guidance :** Retention rates for differing ranks and nationalities are monitored.

Για την αρτιότερη Στελέχωση των Πλοίων, η Διαχείριση στοχεύει στην επίτευξη ενός Ισχυρού Ηγετικού Προφίλ των Αξιωματικών των πλοίων της Εταιρίας. Μέσω της Ναυτολόγησης και Διαχείρισης ελεγχόμενης ποιότητας Πληρωμάτων, η Διαχείριση προωθεί τις Αρχές της Υψηλού Επιπέδου Ασφάλειας και Προστασίας του Περιβάλλοντος σε όλα τα Επίπεδα της Οργάνωσης.

Ένας Δείκτης Απόδοσης της ικανότητας και προθυμίας των απασχολούμενων πληρωμάτων στον τομέα εργασίας, είναι ο Βαθμός Ιεραρχικής Στασιμότητας. Ποιοτικοί Αξιωματικοί Πλοίου, είναι εκείνοι που ενδιαφέρονται για την εξέλιξη τους, διαθέτοντας και επιδεικνύοντας τον απαραίτητο βαθμό φιλοδοξίας, εργατικότητας αλλά και του καλώς εννοούμενου εγωισμού, ώστε να προσβλέπουν στην εργασιακή τους πρόοδο και την έγκαιρη εξέλιξη στα υψηλότερα αξιώματα της ιεραρχίας.

Η Εταιρία μπορεί να υπολογίσει τον Βαθμό Εξέλιξης, μέσω της χρήσης του ακόλουθου μαθηματικού τύπου που παρέχεται για τον σκοπό αυτό από την Διεθνή Ένωση Ανεξάρτητων Ιδιοκτητών Δεξαμενοπλοίων (INTERTANKO) :

*International Association of Independent Tanker Owners*

**- FOR SAFE TRANSPORT, CLEANER SEAS AND FREE COMPETITION -**

**INTERTANKO Officer Retention Formula.**

**(Corrected) Version 2 Dated 12th March 2008**

Source: The formula is modelled upon the Abelson adjusted turnover rate”

referenced in Abelson M 1996 turnover cultures and turnover culture” in Human

Resources Management. But is adjusted by INTERTANKO to create a retention rate

formula, as opposed to a turn over rate formula.

**INTERTANKO Officer Retention Formula**

$$\% \text{ Retention Rate (RR)} = 100 - \left[ \frac{\{S - (UT + BT)\}}{AE} \times 100 \right]$$

**Where:**

RR = Officer Retention Rate

S = Total Number of terminations from what ever cause (In effect this means the total number employees that have left the company for what ever reason)

UT = Unavoidable Terminations (i.e. retirements or long term illness)

BT = Beneficial Terminations (i.e. sometimes those staff that do leave provide

benefit to the company by virtue of leaving, for example under performers

AE = The average number of employees working for the company during the same period as calculated, this should be any period of 12 months.

**Example 1:**

(AE) Company employs 57 sea staff

(S) Total number of staff that left in a 12 month period, 15

(UT) Unavoidable terminations (1 left due to long term illness)

(BT) Zero staff which left, were considered beneficial terminations

(RR) Officer Retention Rate = 75

**Example 2:**

(AE) Company employs 875 sea staff

(S) Total number of staff that left in a 12 month period, 12

(UT) Unavoidable Terminations (3 left as reached pensionable age)

(BT) 1 staff was an under achiever and thus classed as beneficial to leave

(RR) Officer Retention rate = 99%

**ELEMENT 3A****RECRUITMENT AND MANAGEMENT OF SHIPS' PERSONNEL****Stage :1,4**

**KPI :** Management has a defined system of **selection, recruitment and promotion** procedures.

**Best – practice guidance :** The company checks that certification complies with the issuing authority and STCW. The company **authenticates** certificates and maintains **records** of these checks.

Για να διασφαλίζεται πως όλα τα Πλοία του Στόλου είναι Στελεχωμένα με Ικανά Πληρώματα, η Εταιρία χρησιμοποιεί την ειδική υπηρεσία του IMO, “**Certificate Verification**”, που είναι προσβάσιμη μέσω της ιστοσελίδας του IMO : imo.org και μέσω της υποβολής των προς έλεγχο στοιχείων, λαμβάνεται η ενημέρωση περί της αυθεντικότητας ή μη, του πιστοποιητικού.

Δείγμα της σχετικής ιστοσελίδας, όπου υποβάλλονται τα προς εξέταση στοιχεία :



Certificate data form Pa

### Certificate Verification

To check the validity of a certificate of competency, please provide the following details:

Country Selected	<b>Greece</b>
Certificate number	<input type="text"/>
Date of issue	1 JAN 2009
Full name of holder	<input type="text"/>
Date of birth (Data protection rules may apply)	1 JAN 1993
STCW regulation	II/1
Capacity (master, second engineer etc.)	Master
Your name	<input type="text"/>
Your Organization/Company	<input type="text"/>
Please provide the email address you want to receive the certificate-issuing Party's response:	<input type="text"/>

Now SUBMIT the information to the certificate-issuing Party. A response should be made directly to your email address.

### ELEMENT 12A

#### MEASUREMENT, ANALYSIS AND IMPROVEMENT

##### Stage : 3,2

**KPI :** The company maintains **records** that clearly demonstrates the **status of the recorded deficiencies through to close out.**

**Best – practice guidance :** The results of inspections are recorded and deficiencies tracked to demonstrate close out. Regular checks are made on the status – of open actions (deficiencies or defects not corrected to the satisfaction of management). **A summary of the status** is provided to **senior management** on a **quarterly** basis.

Λεπτομερείς Αναφορές και Σχέδια Αποκατάστασης Εκκρεμοτήτων τηρούνται στο Γραφείο. Η Διαδικασία περιλαμβάνει την Επισήμανση της Τάσης Εμφάνισης Μη-Συμμορφώσεων και την Διαμόρφωση των Κατάλληλων Συνθηκών για την Έγκαιρη Αποκατάσταση τους, όταν Ανιχνεύονται.

Παρατίθεται ακολούθως στατιστικός πίνακας των εκκρεμοτήτων ενός συστήματος προγραμματισμένης συντήρησης. Επεξήγηση στηλών (κάθε στήλη αναφέρεται σε ένα πλοίο) :

1. συνολικός αριθμός μηνιαίων προγραμματισμένων εργασιών.
2. αριθμός εκκρεμουςών εργασιών.
3. ποσοστό εκκρεμότητας σε σχέση με τις προγραμματισμένες εργασίες.

Τελευταία στήλη πίνακα : συνολικός μ.ο

	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	
JAN	79	2	3%	43	0	0%	42	0	0%	55	4	7%	53	0	0%	68	0	0%	57	0	0%	95	0	0%	1.23%
FEB	59	0	0%	146	0	0%	46	0	0%	51	3	6%	53	0	0%	29	0	0%	49	0	0%	31	0	0%	0.74%
MAR	46	0	0%	60	0	0%	54	0	0%	31	0	0%	38	0	0%	56	0	0%	32	0	0%	55	0	0%	0.00%
APR	57	0	0%	39	0	0%	56	1	2%	61	1	2%	41	0	0%	38	0	0%	87	0	0%	67	3	4%	0.99%
MAY	56	0	0%	50	6	12%	61	0	0%	49	0	0%	61	0	0%	41	5	12%	41	0	0%	39	0	0%	3.02%
JUN	36	0	0%	41	3	7%	54	5	9%	62	0	0%	30	0	0%	41	11	27%	57	0	0%	58	0	0%	5.43%
JUL	57	0	0%	40	0	0%	59	0	0%	49	0	0%	49	0	0%	44	0	0%	53	0	0%	115	2	2%	0.22%
AUG	57	0	0%	78	0	0%	47	1	2%	53	0	0%	58	0	0%	53	2	4%	43	1	2%	38	1	3%	1.36%
SEP	43	7	16%	48	0	0%	70	5	7%	45	10	22%	54	0	0%	73	9	12%	40	1	3%	45	1	2%	7.84%
OCT	55	3	5%	34	1	3%	53	0	0%	57	0	0%	49	0	0%	35	1	3%	89	1	1%	56	1	2%	1.77%
NOV	77	0	0%	44	1	2%	62	6	10%	73	1	1%	73	0	0%	43	1	2%	44	2	5%	48	4	8%	3.57%
DEC	56	3	5%	59	2	3%	69	2	3%	87	4	5%	46	3	7%	52	0	0%	46	4	9%	60	3	5%	4.56%
TOTALS	678	15	2.47%	682	13	2.33%	673	20	2.74%	673	23	3.58%	605	3	0.54%	573	29	5.03%	638	9	1.60%	707	15	2.18%	2.56%

Remarks:

**ELEMENT 8A****INCIDENT INVESTIGATION AND ANALYSIS****Stage : 3,2**

**KPI :** The incident management procedures ensure that the **lessons learnt** from an incident or near miss are **shared across the fleet**.

**Best – practice guidance :** **Periodical (at least annual) statistics** are available to the fleet in order to demonstrate improvements.

Οι διαδικασίες Διαχείρισης των Περιστατικών, εμπλουτίζονται με την τήρηση στατιστικών στοιχείων επί των αναφορών που υποβάλλονται, ενώ η εξαγωγή χρήσιμων συμπερασμάτων βοηθά στην αποφυγή επανεμφάνισης του περιστατικού.

No.	Date of Event	Vessel	Description	Investigation Date
1.	12/01	AGL	Lack of warning sign	17/01
2.	16/01	ALE	Position of the safety chain	26/01
3.	23/01	APR	Unsafe acts	06/02
4.	31/01	AFA	Lack of warning sign	09/02
5.	06/02	AFR	Unsafe acts	14/02
6.	14/02	MAR	Crew carelessness leads to injury	24/02
7.	10/03	AAN	Unsafe acts	21/03
8.	14/03	AFA	Lack of warning sign	28/03
9.	15/03	AGL	Weather condition	28/03
10.	04/04	AAN	Lack of maintenance	19/04

11.	09/04	APR	Unsafe acts	13/04
12.	22/04	ALE	Unsafe acts	03/05
13.	04/05	AFR	Unsafe acts	16/05
14.	23/05	MAR	Lack of maintenance	03/06
15.	06/06	ADI	Unsafe acts	20/06
16.	19/06	AGL	Unsafe acts	02/07
17.	11/07	APR	Unsafe conditions	24/07
18.	27/07	AFR	Crew carelessness leads to injury	12/08
19.	12/08	ALE	Unsafe conditions	24/08
20.	15/08	AFA	Unsafe working practices	27/08
21.	25/08	MAR	Lack of compliance with procedure	09/09
22.	12/09	AAN	Lack of compliance	20/09
23.	28/09	ADI	Lack of familiarization	10/10
24.	10/10	AGL	Unsafe working practices	17/10
25.	27/10	APR	Unsafe acts	10/11
26.	18/11	ALE	Master's authority	28/11
27.	04/12	ADI	Unsafe conditions	19/12

**Total Near Misses and Suggestions for improvement per Vessel**

<b>AGL</b>	<b>ALE</b>	<b>APR</b>	<b>AFR</b>	<b>AFA</b>	<b>MAR</b>	<b>AAN</b>	<b>ADI</b>
<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>

**ELEMENT 9A**

**SAFETY MANAGEMENT - SHORE-BASED MONITORING**

**Stage : 2,5**

**KPI : Achievable targets** are set for close out of the **preventive measures** identified in the risk assessment

**Best – practice guidance** : All efforts are made to introduce identified preventive measures as soon as possible. Shore management keeps an active file, **investigates any delays and expedites closure.**

Διαχείριση της Ασφάλειας / Επίβλεψη από πλευράς Γραφείου :

Ολοκληρωμένο Σύστημα Προληπτικής Προσέγγισης εφαρμόζεται, ως προς την Επισήμανση των Εργασιακών Κινδύνων και την Διευθέτηση των Επιχειρησιακών Κινδύνων.

Παρατίθεται πίνακας συχνότητας ατυχημάτων / απώλειας εργασίας.

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**FLEET INCIDENT DATA ANALYSIS**


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**Lost Time Injury Frequency (LTIF).** Expresses the number of Fatalities + PTDs + PPDs + LWCs per unit exposure hours. The frequency is simple arithmetic, expressing a rate per a desired unit of exposure hours.

$$LTIF = \frac{LTI \times 1,000,000}{\text{Exposure Hours}} = \frac{1 \times 1,000,000}{1,005,376} = 0.994652$$

**Total Recordable case frequency (TRCF).** Expresses the number LTIs + RWCs + MTCS and is calculated with the same way as LTIF.

$$TRCF = \frac{TRC \times 1,000,000}{\text{Exposure Hours}} = \frac{1 \times 1,000,000}{1,005,376} = 0.994652$$

Table (A). Incidents of the Fleet year 2007 (1<sup>st</sup> SEM)

Type	Incident year 2007 (1 <sup>st</sup> SEM)	%
<b>LTI (lost time injuries)</b>		
Fatalities	0	
PTD (Permanent Total Disability)	0	
PPD (permanent partial disability)	0	
LWC (Lost Workday Case)	1	
<b>NLTI (non lost time injuries)</b>		
RWC (Restricted Work Case)	0	
MTC (Medical Treatment Case)	0	
FAC (First Aid Case)	0	
<b>Near misses</b>	<b>26</b>	

Table (B). Areas of Incident year 2007(1<sup>st</sup> SEM)

Area	Incident year 2007 (1 <sup>st</sup> SEM)	%
<b>Deck</b>	<b>16</b>	<b>62</b>
<b>Engine room</b>	<b>4</b>	<b>15</b>
<b>Tank area</b>	<b>2</b>	<b>8</b>
<b>Accommodation</b>	<b>4</b>	<b>15</b>

Table (C). Fleet Hours year 2007

Period	Fleet Hours
1 <sup>st</sup> Sem.	1,005,376
2 <sup>nd</sup> Sem.	

Table (D). LTIF – TRCF Values

Period	LTIF	TRCF
1 <sup>st</sup> Sem.	0	0
2 <sup>nd</sup> Sem.		

Επεξηγήσεις στοιχείων και εννοιών που περιλαμβάνονται στον ανωτέρω πίνακα :

**Permanent Total Disability (PTD) – περιστατικό που έχει σαν αποτέλεσμα την μόνιμη αδυναμία του παθόντος προς εργασία = άμεση απόλυση**

Any work injury, which incapacitates an employee permanently and results in termination of employment on medical grounds (e.g. loss of limb(s), permanent brain damage, loss of sight) and precludes the individual from working either at sea or ashore.

**Permanent Partial Disability (PPD) – περιστατικό που έχει σαν αποτέλεσμα την μόνιμη αδυναμία του παθόντος προς εργασία στη θάλασσα = άμεση απόλυση**

Any work injury, which results in the complete loss or permanent loss of use of any member or part of the body, or any impairment of functions of parts of the body, regardless of any pre-existing disability of the injured members or impaired body functions that partially restricts or limits an employees basis to work on a permanent basis at sea. Such an individual could be employed ashore, but not at sea in line with industry guidelines.

**Lost Work Day Case (LWC) – περιστατικό που έχει σαν αποτέλεσμα την αδυναμία του παθόντος προς εργασία στη θάλασσα για κάποιο χρονικό διάστημα = άμεση απόλυση**

This is an injury, which results in an individual being unable to carry out any of his duties or to return to work on a scheduled work shift on the day following the injury unless

caused by delays in getting medical treatment ashore. An injury is classified as an L.W.C., if the individual is discharged from the ship for medical treatment.

**Restricted Work Case (RWC)** – περιστατικό που έχει σαν αποτέλεσμα την απουσία του παθόντος από την κύρια εργασία του στη θάλασσα για κάποιο χρονικό διάστημα, αλλά που ίσως του επιτρέπεται κάποια βοηθητική προσωρινή απασχόληση = παραμονή στο πλοίο

This is an injury, which results in an individual being unable to perform all normally assigned work function during a scheduled work shift or being assigned to another job on a temporary or permanent basis on the day following the injury.

The following come into the category of “less than normal work functions”:

- Performing all duties or normal assigned work functions, but at less than full time schedule.
- Performing limited duties at normally assigned job fulltime schedule.
- Transfer to other duties

**Lost Time Injuries (LTIs)** – περιστατικά που συνεπάγονται απόλυση από το πλοίο

Lost Time Injuries are the sum of fatalities, permanent total disabilities (PTD), permanent partial disabilities (PPD) and lost workday cases (LWC).



## ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»

**Medical Treatment Case (MTC) – παροχή Α΄ βοηθειών από εξειδικευμένο προσωπικό**

This is any work related loss of consciousness injury or illness (unless to ill health), requiring more than first aid treatment by a physician, dentist, surgeon or registered medical personnel, e.g. nurse or paramedic.

**First Aid Case (FAC) – παροχή Α΄ βοηθειών από προσωπικό του πλοίου**

This is any one-time treatment and subsequent examination or minor injuries, such as bruises, scratches, cuts, burns, splinters, etc.

The First Aid may or may not be administered by a physician or registered professional.

(FACs are not considered LTIs).

**The Personnel Incident/Accident Pyramid**

**Fatalities**

**PTD**

**PPD**

**LTI**

**TRC**

**/ CRR**

**LWC**

**RWC**

**MTC**

**NLTI**

**FAC**

**NRC**

**PTD: Permanent Total Disability**

**PPD: Permanent Partial Disability**

**LWC: Lost Workday Case**

**LTI: Lost Time Injury**

**RWC: Restricted Work Case**

**MTC: Medical Treatment Case**

**FAC: First Aid Case**

**TRC: Total Recordable Cases**

**NLTI: Non-lost Time Injuries**

**NRC: Non Recordable Cases**

**CRR: Cases Resulting to Repatriation**

Η κατηγοριοποίηση των περιπτώσεων τραυματισμού, απώλειας εργασίας και απομάκρυνσης από το πλοίο, πέραν της εξυπηρέτησης των εκπονήσεων στατιστικών αποτελεσμάτων, παρέχει και την δυνατότητα εξαγωγής πολύτιμων συμπερασμάτων.

Η βασική αιτία της διερεύνησης κάθε ατυχήματος, περιστατικού ή παρ' ολίγον ατυχήματος, είναι η αποφυγή της επανάληψης του, που μπορεί να έχει τις ίδιες ή και σοβαρότερες συνέπειες. Φέρνοντας στο φως, όχι μόνο την προφανή αιτία, αλλά και τα βαθύτερα / υποβόσκοντα στοιχεία του κάθε περιστατικού, οδηγούμαστε σε πραγματική και αναλυτική επίγνωση των καταστάσεων, διαχέουμε την πληροφόρηση σε όλους τους

συναδέλφους / εμπλεκόμενους στην ναυτική βιομηχανία και έτσι θα μπορέσουμε να μειώσουμε τις βαριές και μη αναστρέψιμες συνέπειες.

### **ELEMENT 7B**

#### **MANAGEMENT OF CHANGE**

##### **Stage : 2,1**

**KPI :** The system ensures that the documentation supporting a change **includes the reason for the change, a clear understanding of the safety and environmental implications, and the appropriate level of approval.**

**Best – practice guidance :** The company has prepared a **document (checklist)** that ensures authorisation for any change is approved by **senior ships' management** and not by the person directly involved in the change. The document includes reference to appropriate safety and environmental issues.

Η Διαδικασία Διαχειριστικών Μεταβολών που εφαρμόζεται στα Πλοία της Εταιρίας, με Στόχο την Υποστήριξη του Προσωπικού στην Επισήμανση των Εργασιακών Κινδύνων και την μείωση τους, υποστηρίζεται και υλοποιείται μέσω του εντύπου που παρατίθεται :

**CHANGE REQUEST FORM**

To be allocated by DPA	CR No.	___/Year
------------------------	--------	----------

**PART A (to be completed by Originator)**

To Designated Person Ashore

From:	Dept/Vessel
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**PART B (to be completed by Originator)**

QSEMS section affected:	Document/Form
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Operation's affected:

Changes Requested:

Reason:

Signed (originator) Vessel/Department	Date:
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**PART C (to be completed by Specified Reviewer or Dept. Manager)**

Items for consideration	Delete as appropriate	Reviewed by:	Sign
Is this change accepted?	Y / N	Supervisor	
Will documents/drawings require modification?	Y / N	Dept Mngr	
Is approval by outside regulatory body required?	Y / N	Dept Mngr	
Are there any safety implications?	Y / N	DPA	
Are there any security implications?	Y / N	CSO	
Are there any permit implications?	Y / N	DPA	
Are there Occupational Health/Human Factor Implications?	Y / N	DPA	
Are there any environmental implications?	Y / N	EMR	
Is a Risk Assessment required?	Y / N	DPA	
Is a Legal review required?	Y / N	DPA	
Are there any training implications?	Y / N	Training Mngr	

Additional remarks by DPA:

Responsible for implementation:

Time frame for completion:

Signed:  
DPA

Date:

Approved / Rejected \*  
GM

Date:

**ELEMENT 3A****RECRUITMENT AND MANAGEMENT OF SHIPS' PERSONNEL**

Stage : 4,1

**KPI** : The company conducts **pre-employment assessment** for job competence and training for officers and ratings.

**Best – practice guidance** : Techniques such as **simulator training and computer-based or psychometric assessment** should be used to confirm job competence before confirmation of employment.

Πέραν της διερεύνησης ως προς την αυθεντικότητα των πιστοποιητικών των πληρωμάτων, που διενεργείται με την μέθοδο που προαναφέρθηκε, οι γνώσεις τους και η πλήρης κατανόηση Καθηκόντων και Υποχρεώσεων, όπως και η δυνατότητα εργασίας τους μέσα σε ένα οργανωμένο Σύνολο, αξιολογούνται μέσω της συμμετοχής των Αξιωματικών σε ένα πρόγραμμα ερωτήσεων που πρέπει να απαντηθεί σε συγκεκριμένο χρονικό περιθώριο.

**COMPETENCY MANAGER**

RANK	DATE OF TEST	QUESTIONS	DURATION	SCORE
SECOND ENGINEER	02.02.2006	135	01:53:40	60%
CHIEF OFFICER	03.02.2006	150	01:11:37	62%
MASTER	03.02.2006	150	01:33:38	68%
SECOND OFFICER	07.02.2006	75	00:44:15	61%
MASTER	07.02.2006	90	01:38:10	70%
CHIEF OFFICER	10.02.2006	150	01:12:58	39%
CHIEF OFFICER	20.03.2006	150	02:21:42	58%
MASTER	28.03.2006	150	02:39:23	67%
CHIEF OFFICER	28.03.2006	150	1:00:57	62%
CHIEF ENGINEER	29.03.2006	80	01:34:58	56%
SECOND ENGINEER	30.03.2006	75	00:55:10	77%
CHIEF OFFICER	30.03.2006	95	01:12:52	54%
SECOND OFFICER	04.04.2006	75	00:39:02	50%
MASTER	07.04.2006	90	00:45:26	63%
SECOND OFFICER	10.04.2006	45	00:25:19	62%
CHIEF ENGINEER	12.04.2006	80	00:33:03	73%
CHIEF OFFICER	17.04.2006	95	00:47:08	57%
MASTER	18.04.2006	90	01:14:43	73%
SECOND ENGINEER	19.04.2006	75	02:06:24	25%
SECOND ENGINEER	20.04.2006	90	01:15:55	64%
CHIEF OFFICER	02.05.2006	95	01:14:30	72%
CHIEF OFFICER	02.05.2006	95	00:59:11	69%
CHIEF OFFICER	04.05.2006	95	00:35:50	73%
MASTER	11.05.2006	90	01:06:32	57%
MASTER	19.05.2006	150	02:13:30	70%
CHIEF OFFICER	19.05.2006	90	01:30:04	61%
CHIEF ENGINEER	31.05.2006	135	00:58:04	76%
SECOND ENGINEER	06.06.2006	90	01:04:54	44%
CHIEF ENGINEER	09.06.2006	65	01:03:47	61%
CHIEF OFFICER	13.07.2006	90	01:51:03	67%
CHIEF ENGINEER	09.08.2006	65	00:59:43	46%
CHIEF OFFICER	28.08.2006	90	00:46:59	65%
SECOND ENGINEER	29.08.2006	90	01:41:58	43%
CHIEF OFFICER	04.09.2006	90	01:12:59	43%
CHIEF OFFICER	04.09.2006	150	00:46:57	70%
SECOND ENGINEER	13.09.2006	135	02:32:09	51%
SECOND ENGINEER	19.09.2006	135	01:19:24	63%
SECOND OFFICER	22.09.2006	75	00:40:10	66%
SECOND OFFICER	26.09.2006	75	00:55:39	50%
MASTER	27.09.2006	150	01:02:30	53%
MASTER	28.09.2006	150	01:55:56	65%
MASTER	02.10.2006	150	02:41:45	71%
CHIEF OFFICER	04.10.2006	150	03:10:15	45%
CHIEF OFFICER	12.10.2006	150	02:05:54	61%
MASTER	13.10.2006	150	03:36:07	64%
CHIEF ENGINEER	17.10.2006	135	03:59:02	72%
CHIEF OFFICER	17.10.2006	150	01:56:53	68%
CHIEF OFFICER	18.10.2006	150	01:53:27	70%
CHIEF ENGINEER	19.10.2006	90	01:33:37	76%
SECOND OFFICER	19.10.2006	75	01:43:27	48%
SECOND OFFICER	24.10.2006	75		69%
THIRD ENGINEER	30.10.2006	70	00:45:09	68%
SECOND OFFICER	30.10.2006	75	01:12:24	70%
CHIEF ENGINEER	30.10.2006	135	01:29:02	54%
THIRD OFFICER	30.10.2006	75	00:50:26	64%
CHIEF ENGINEER	31.10.2006	135	01:43:33	56%
SECOND OFFICER	31.10.2006	75	01:18:36	73%
CHIEF ENGINEER	01.11.2006	135	01:56:03	61%
CHIEF OFFICER	15.01.2007	366	03:23:46	61%

**ELEMENT 9B****SAFETY MANAGEMENT - SHIPBOARD MONITORING****Stage : 3,1**

**KPI :** The ship's management team promotes a strong, proactive safety culture on board, and all crew members are encouraged to be involved in **proactive safety campaigns** and work methods.

**Best – practice guidance :** Regardless of any shore-based safety initiatives, the ship's senior management team is actively involved in promoting a strong safety, health and hygiene culture on the vessel. Examples are **near-miss reporting, hazard identification and use of appropriate personal protective equipment (PPE).**

Διαχείριση της Ασφάλειας / Επίβλεψη από πλευράς Πλοίου : εφαρμογή Ολοκληρωμένου Συστήματος Προληπτικής Προσέγγισης ως προς την επισήμανση των Εργασιακών Κινδύνων και την από πλευράς των Αξιωματικών του Πλοίου διευθέτηση των Κινδύνων από την Εργασία επάνω στα Πλοία. Παρατίθεται πίνακας ως προς την χρήση εξοπλισμού ατομικής προστασίας :

Matrix for use of Personal Protective Equipment

	Head protection	Respiratory protection	Eye protection	Hearing protection	Skin protection	Hand protection	Foot protection	Slip resistant footwear
	Hard hat Arc Welding Helmet	Dust mask Half Face Mask Full Face Mask Safety Goggles	Safety Goggles Face Shield Gas Welding Goggles	Ear Plugs Ear Defenders	Boiler suit PVC Wet Suit Thermal Suit Barrier Cream	Riggers Gloves Thermal Gloves Welding Gauntlets PVC Gloves Latex Gauntlets Impact Gloves	Safety Shoes Safety Boots Wellington Boots	Safety harness Personal Gas Monitor Life Jacket Walkie Talkie Explosion Proof Lighting Emergency escape breathing apparatus
Welding arc	X		X		X	X	X	
Welding gas	X		X		X	X	X	
Grinding power brushes and power tools	X	X	X	X	X	X	X	
Chipping by hand and power tools	X	X	X	X	X	X	X	
Sand blasting	X	X		X	X	X	X	
Water blasting	X		X		X	X	X	
Painting	X	X	X		X	X	X	
Working aloft	X				X	X	X	X
Working overside	X				X	X	X	X
Entry into enclosed space	X				X	X	X	X
Deck washing	X		X		X	X	X	X
Mooring	X				X	X	X	
Anchoring	X	X	X	X	X	X	X	X
El/r attendance	X			X	X	X	X	X
Bunkering/oil cargo operation and inerting	X	X			X	X	X	X
Cargo operation with toxic gas	X	X			X	X	X	X

\* Respiratory Equipment stand-by in the entrance for immediate Use



**Σ Υ Μ Π Ε Ρ Α Σ Μ Α Τ Α**

Τα ανωτέρω παρατιθέμενα παραδείγματα, αποτελούν την προφανή απόδειξη του ποσοστού βελτίωσης που μπορεί να επιτελεστεί σε ένα ήδη καλά οργανωμένο και πιστά τηρούμενο Σύστημα Ασφαλούς Διαχείρισης.

Ήδη από την πρώτη αυτό-αξιολόγηση, για τις ανάγκες συμμόρφωσης και αφομοίωσης του προγράμματος **TMSA**, το εφαρμοζόμενο από την συγκεκριμένη Διαχειρίστρια Ναυτική Εταιρία Σύστημα Ασφαλούς Διαχείρισης, απέδειξε την άρτια δομή του και προέταξε την ολοκληρωμένη – στους περισσότερους τομείς – επάρκεια τεκμηρίωσης των διαδικασιών και πληρότητα των υλοποιούμενων πολιτικών.

Παρ' όλα αυτά τα θετικά και ενθαρρυντικά, για τους λειτουργούς του προγράμματος αποτελέσματα, η προσεκτική και σε βάθος ανάγνωση και ανάλυση των Βασικών Δεικτών Απόδοσης, έφερε στην επιφάνεια τομείς του Συστήματος που παρουσίαζαν ελλείψεις, πεδία άσκησης της πολιτικής για την ασφάλεια που εμφάνιζαν χαλαρότητα, κενά ερμηνείας και βέβαια αρκετό περιθώριο βελτίωσης. Σε αυτό το σημείο πρέπει να τονιστεί, πως ένα χαμηλό αξιολογητικό αποτέλεσμα στα πλαίσια εφαρμογής του προγράμματος **TMSA**, δεν σημαίνει αυτόματα πως το αξιολογούμενο σύστημα είναι κακό ή σε λάθος κατεύθυνση, όπως αντίστοιχα και μία υψηλή κατάταξη δεν θα πρέπει να επιφέρει αδράνεια. Απλώς το κάθε Σύστημα μπορεί και πρέπει να προσβλέπει σε βελτίωση.

Έτσι λοιπόν τα ανωτέρω παρατιθέμενα παραδείγματα, αναδεικνύουν αυτό ακριβώς το συμπέρασμα, πως πάντα υπάρχουν ανώτερα στάδια απόδοσης που ο κάθε απασχολούμενος στον κλάδο της ναυτιλίας πρέπει να στοχεύει, αρκεί να του φανερωθεί η μέθοδος, να

**ΚΑΙ ΤΗΝ ΠΡΟΣΤΑΣΙΑ ΤΟΥ ΠΕΡΙΒΑΛΛΟΝΤΟΣ»**

επισημανθούν οι κατευθύνσεις και να υπάρχει ένα εμφανές μέτρο σύγκρισης, επί του οποίου ο κάθε ένας θα κάνει την αυτοκριτική του.

Στα θέματα Διαχείρισης της Ασφάλειας, η επέκταση της μεθόδου Risk Assessment επί των περισσότερων εργασιακών πεδίων, ενισχύει την προσέγγιση κάθε καθήκοντος με τρόπο που δεν θα αφήνει περιθώρια για αστοχίες. Οι στατιστικοί πίνακες και η διερεύνηση της τάσης των συμβάντων, προσφέρει χρήσιμα συμπεράσματα και προετοιμάζει για το μέλλον. Στα θέματα επιλογής συνεργατών, όπου η αξία και η δεινότητα «μένουν» να αποδειχθούν στην πράξη, αλλά ταυτόχρονα, «ο χρόνος είναι χρήμα», η διαδικασία επιλογής χρειάζεται να επεκταθεί σε κάθε πιθανό και απίθανο στοιχείο που θα βοηθήσει να προδικάσουμε – κατά το δυνατόν – το μέλλον.

Στα θέματα οργάνωσης, η γνώση, η εμπειρία και το πάθημα – μάθημα, ενισχύονται με την καθετοποίηση των διαδικασιών, τον καθορισμό επακριβών προδιαγραφών για τις υποδείξεις – αιτήσεις – αναφορές και την καθιέρωση συχνών ελέγχων και αξιολογητικών / αναθεωρητικών συγκεντρώσεων των στελεχών της Διοίκησης.

Στα θέματα επιμόρφωσης, τα εγκατεστημένα σε Η/Υ προγράμματα εκπαίδευσης – αξιολόγησης, παρέχουν την δυνατότητα συμμετοχής πολλών και διαφορετικού επιπέδου γνώσεων συμμετεχόντων, με άμεση εξαγωγή αποτελεσμάτων και τη ευχέρεια της εγκατάστασης επί πλοίων. Τα δε συστήματα προσομοίωσης Γέφυρας πλοίου, Μηχανοστασίου, Χειρισμού υγρών φορτίων, Συστημάτων επικοινωνιών, Ηλεκτρονικών χαρτών κλπ, απλώς είναι το παρόν και το μέλλον της εκπαίδευσης επί πολύπλοκων και απαιτητικών συστημάτων που οι Αξιωματικοί θα κληθούν να χειριστούν επάνω στα πλοία.

Ίσως τα παρατιθέμενα συμπεράσματα εκληφθούν από κάποιον αναγνώστη ως γενικότητες και πλούσια παρέλαση εννοιών και χαρακτηρισμών. Όμως το πρόγραμμα **TMSA** αυτό ακριβώς εισαγάγει στην Διαχειριστική πρακτική. Την πολυπλόκωτη στις μεθόδους εφαρμογής της κοινής Πολιτικής που πρεσβεύει την ασφάλεια στις θαλάσσιες μεταφορές, την προστασία της Ανθρώπινης ζωής και του περιβάλλοντος. Διαμορφώνει και υποδεικνύει παραμέτρους αξιολόγησης, δείκτες απόδοσης, στάδια βελτίωσης. Προσπαθεί να περιορίσει την νοοτροπία της παροχής υπηρεσιών «όσο είναι αρκετό και όσο μας επιτρέπουν οι καταστάσεις». Προτάσσει την διαφάνεια και τον υγιή ανταγωνισμό, σε έναν χώρο που ακόμη επικρατούν, ο επιθετικός ανταγωνισμός και η απόκριση όσων δεν συμφέρουν. Στον χώρο που πολλοί εισέρχονται για να ρισκάρουν, να αρπάξουν και να δημιουργηθούν συντόμως, συχνά με σαθρό υπόβαθρο, το πρόγραμμα **TMSA** ζητά αργά και μελετημένα βήματα, καθώς το ρίσκο στην ναυτιλία ισοδυναμεί με κίνδυνο. Ο κίνδυνος στην ναυτιλία είναι μη αποδεκτός γιατί εύκολα μπορεί να οδηγήσει σε ατύχημα. Το ατύχημα έχει κόστος και ειδικά όταν αναφερόμαστε σε ναυτικό ατύχημα όπου εμπλέκεται δεξαμενόπλοιο, το κόστος, η αρνητική προβολή, η αμαύρωση της φήμης της Εταιρίας, εύκολα ανέρχονται σε ανώτατα στάδια.

Είναι λοιπόν προτιμότερο να προσβλέπουμε και να επιδιώκουμε τη επίτευξη ανώτερων επιπέδων στους τομείς της ασφάλειας, της οργάνωσης, της απόδοσης και να μην προτάσσουμε το κόστος σαν αρνητικό παράγοντα της επένδυσης στην ασφάλεια.

Ένα ανώτερο Διοικητικό στέλεχος των Βρετανικών σιδηροδρόμων έχει πει :

“if you think Safety is expensive, try having an accident”...

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