



# Fragrance

February Edition 2010

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Dear Friends,

Glad to present another edition of Fragrance. Every month new new writers are joining our site [www.writersadda.com](http://www.writersadda.com) and we are trying our best to pick up the best of the articles from our site and make this e-zine more and more adorable. In our effort we need you support, feed back and articles on various topics to make not only Writers Adda a true meeting place for writers but also to make this e-zine more vibrant with various topics.

Life is like a flowing river. And we are like rolling stones in it. The more we flow with the river the less we are prone to gather moss on us .With new thoughts, new ideas and flowing with time we can make us to live life to its fullest. The same thing applies to "Fragrance" too. We will keep on changing its contents as per our readers' demand and taste.

In this edition we have two lovely poems on life and human emotion, one short story depicting an unusual love story that will make you think for a while, One on board experience of a sailing Master when an unusual guest entered into the accommodation area of his Ship, three shipping based articles on "VOC management plans for Oil Tankers", "Behavior based safety" the latest in Maritime training and "The safe operation of Ships and pollution prevention as per ISM Code amendment". Hope this will appeal you all.

Thanks & Regards

Editor

Pls Send your feed back e-mail:-[swayammaritime@gmail.com](mailto:swayammaritime@gmail.com) :  
[writersadda@gmail.com](mailto:writersadda@gmail.com) : & [shippingtutorials@gmail.com](mailto:shippingtutorials@gmail.com)



## Metamorphosis

By

Niranjan Nayak

Like a bird emancipated from the cage  
Like a soul leaving the worn out fetters of the body  
Like a surge of emotion finding a sudden outlet  
Like a shriek escaping from a body in agony.

Down and down it rolled  
Cooling my burnt cheeks  
Touching one corner of my mouth  
I relished its saline taste.  
Down it fell on the ground

**My pent up anguish**  
**My frozen frustration**  
**My condensed bitterness.**  
Down it fell on the ground  
Turning itself into a lovely, little pearl  
Revealing its beauty only when it was hard

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## The waiter

by

Pearl S

The "Flavors" was situated in the heart of the city. It was a big restaurant. The interior was awesome; the tables were decorated with latest design of flower decorations. The nook and corner of this restaurant was touched with an artistic touch and giving it that cherished perfection.

The tables had been separated from one to the other by thick etched glasses. The table clothes used to change and arranged according to the colors suited to a particular day of a week. They had a theme for every day of the week and according to the theme the chef used to serve a new menu to the guests along with the regular menus. The owner of "Flavours" was bit drawn towards astrology and made his restaurant vastu comply. Every day hundreds of visitors visit here for its nice food and hospitality..... And in this restaurant, Somu was one of the most obedient and friendly waiter, who had made a distinction from rest of waiters for his good humor and perfection in every thing. Every day Somu laid the plates on the table with utmost care. White ceramic plates when still warm as taken from the dishwasher, Somu used to arrange along with the spoons, and forks and knives..... Every time after arranging the tables, he used to throw a satisfied look through out the 'Flavors'. It was his touch...that Midas touch..... This used to give this restaurant an unusual homely vibes. The guests arriving here always looked for Somu and usually prefer his charming way to serve them according to their wishes.....But that day it was not usual day. The restaurant was partially booked for a birth day celebration. And Somu was extra careful to please the guests for the occasion.

After putting the cutlery in its place Somu, proceeded towards the corner of the restaurant, separated from the rest of the tables. That day, for the birth day party, six tables were drawn together to give it an impression of one block. It was separated with potable glass barricades from the rest of the restaurants. With the help of another waiter he put the banner saying "Happy birthday Jay" .They managed to put some colourful balloons and ribbons along



with the flowers to give it a party look. As the clock touched 8pm, people started pouring in armed with stylish gifts in jazzy wraps. Some came with a banquet of flowers. All were quite sophisticated; a touch of aristocracy was there. The suits look too expensive on the visitors and the ladies were looking very beautiful in their latest fashioned attires. somu's eyes dazzled for a moment.

The menu was pre-ordered so Somu started to open the kingfisher bottles and pour in every body's glass. They were about twenty people. The cake arrived and a small cheers spread amongst the guests. Suddenly he saw a push in the restaurant door. He hinted at the other waiter to open the door for the guest. There emerged she, the white but heavily worked saree clad guest.

Somu looked at that direction and stuck in his own thought. For a moment Somu stayed standstill. Somu lost his words....At once he felt an unusual sense of attraction towards that lady. In his 5 years job in this restaurant He had seen many people but he never felt such a feeling for anybody. A sweet feeling of belongingness spread allover Somu....

'How on earth can somebody be so stunning?' He thought. Somu was almost followed her like a dry leaf in a gush of wind, no control over his own self.

She entered in a grace walked along the restaurant till that corner, where party was going on. She took the seat and started chatting with others, leaving Somu completely absorbed in his own thought. Somu's mesmerized look, got a blow when, somebody called him to pour some wine in that lady's glass. Rest of the evening was just history for Somu. As he didn't remember anything except that white saree clad lady.....He remembered her face, in its tit and bits. He remembered her voice and could recall the resound again and again .He remembered, how she lifted the wine glass so gracefully and touched her sweet pink lips on it. After the party was finished he stole that glass and kept that glass with him avoiding everybody's stare and brought it to his cabin to observe that pink lipstick stain on it.

From that day onwards somehow it became a ritual for Somu to wait. He was not certain that the lady will come again. But he passed the days waiting for her looking at the door again and again. He served the guests but eyes glued to the door. Every day passed in anticipation, a sweet pain in which he loved to get torture in. Just one glimpse of that lady was the most cherished wish that Somu could wish for, at that moment.



The wait.....waiting for somebody to whom you love, waiting for somebody for whom your heart pounds in anticipation with that magic called love ...how sweet that feeling is! Somu performed his duty as usual but he could feel the surge of energy in him. The world seemed to be a wonderful place to live in. The thoughts overpowered his daily duties and his job seemed to be the most cherished job on earth. He started loving his job more and more and did it in perfection as in every moment he wanted to impress his heart's queen with his work. Every day he used to decorate the restaurant as if he was doing it for himself and her empress, the saree clad beauty.

Love does miracles and how can Somu be away from that miracle! Soon Somu gained that adoration from every body and accolades for his job. Because of Somu the restaurant got more and more popularity.

It was the happiest phase of his life when he fell in the sweet trap of love. Days passed and Somu's wait got intensified. He started dreaming about that Lady Day in day out. He started seeing her in his dreams, in his bed, in his counter table and the more he started feeling her, more he became confident and self assured about his capabilities in every thing.

And one day it was heavily raining outside and the restaurant has got only three four guests and suddenly the door pushed in and there emerged the Saree clad lady, this time in a peacock green salwar suit. Somu's eyes flashed like a thousand watt bulb. Somu couldn't believe his eyes...He was too happy to move for a while. She walked in and Somu showed her the way to one of the tables. Somu ran inside to bring a towel and offered her a big towel to wipe out the water dripping from her hair. Somu framed the picture in his mind's eye when his heart still aching in joy.....

While taking the towel she said, "As it is raining heavily I couldn't drive Coincidentally, I stopped just in front of "flavors", now I think, I should have a cup of tea here!"

Somu smiled and thought,'it can't be coincidence. You don't know but I know how much I was thinking of you. It is my thought that drew you here....believe it or not.....But I am sure of it.'

"I need a cup of tea and two samosas." She ordered.

Somu looked at her, while taking away the towel. He smelled her fragrance on the towel and felt the numbness allover his body. Somu wanted to trap that moment and that place in a time machine till eternity. He wanted to take her



into his deep embrace and smell the rain in her hair. He wanted to savor each and every inch of her body. He wished the time to freeze then and there so that he can look into her eyes till eternity in that rain drenched night.

The waiter knocked his shoulder with a tap and said, "How long are you going to stand here clinging to that wet towel. Are you not going to serve her?"

He felt the sudden blood rush in his face and felt very embarrassed. He brought the order quickly and said, "Sorry ma'm, I am bit late. BTW do you stay nearby?"

She was staying in some nearby suburb but her office was close to "Flavors". She was working as an engineer. But Somu couldn't dare to ask anything personal to her. But looking at her status Somu suddenly went in a back foot. The questions which never came to his mind before started hunting him.

"Where she is and where I am", he thought, "She is beautiful, she is so learned, I am of no match for her. She will never go for an affair with a waiter." For the first time Somu tried to realize the difference between her and him. For the first time Somu felt the meanness for his waiter status.

Why it happens.....when one can feel another person's heart without being status conscious, why one needs that status to get approval for love! A sudden gush of depression spread allover himself. He felt a sort of void every where. The restaurant, no more looked to him, as lucrative as it used to be. He felt as if all his energies got drained of ...he felt the darkness for the first time in his life.

From the childhood he has struggled a lot in his life. From an orphanage, his journey to become a waiter was a story in itself to be told. In spite of being a very talented student he couldn't get the resource to complete his hotel management course. He knew that all these colleges were meant for the rich and he had to settle for something low ..... He had always taken life as it was....He was never so over ambitious and never took anything beyond his stride. He lived life as it happened to him. Till yesterday he was happy with what he was supposed to be. But that day every thing changed. That equation with life changed forever. That day he felt the need of a good job and a decent status for the first time. He wanted to fly away spreading his wings to conquer the whole world...so that he can impress his sweet heart with his capability and at par with her status.....



She left the restaurant that day giving a twenty rupees tip to Somu. Somu took the towel and the twenty rupees into his cabin and spread his fingers through out the currency note. He put that rupee in an envelope and put it in the inner locker where he used to keep his precious things.

He looked at the towel and the lipstick stained glass. He draped himself in that towel and touched the stain of lipstick with his lips .He felt her all over again. He tried to forget that day's event. He tried to forget what he learnt about her. He tried to remember the first day and her first glance when she entered the restaurant. He started feeling her all over again in his dreams and remembered the sweet pain of waiting for her days in and days out in anticipation. He remembered her every gesture, the fragrance of her hair and smell of her lipstick....but he tried to forget the hard facts about her status, and his status. He kept her in the special chamber of his heart from where he can access her and can feel her, away from these harsh realities of this earth.....

That night he wrote the letter to his boss...

Dear Sir,

It has been a great pleasure working here in "Flavors". I loved and enjoyed each and every moment in this restaurant. As a boss you have been very kind to me through out. I will look forward to have a boss like you always in my life.

But sometimes some events do leave with us a few inspirations and are good enough to change our path and destiny forever. For the first in my life I found something and I would like to explore that. I want to fulfill my half baked dreams into a full fledge cake with an icing on it. Yes Sir, I would like to complete my hotel management course as soon as possible. For that I need to resign..... I may come back to you again. Hope you understand my sentiment.....

Regards

Somnath (Somu)

But in reality he left "Flavors" forever because he never wanted that sweet feelings to get contaminated with any other thoughts.....He kept her in his heart, as his muse forever



Selfish me

By  
Minaz

I am so selfish,  
I always want you to smile,  
For your smile is mine.

I am so selfish,  
I always want you to laugh,  
For your laughter gives me  
happiness.

I am so selfish,  
I always want you to be  
successful,  
For your success is my  
success.

I am so selfish,  
I always want you to achieve  
your goal,  
For your goal is my goal.

I am so selfish  
That I want you to live long  
and happy,  
For your life is my life,

I am so selfish,  
I always want you to be away  
from pain,  
For your pain is mine too,

I am so selfish  
I wish you all the luck,  
success, wealth, happiness  
and love.

I wish that all that you wish  
always come true  
For darling your dreams are  
my dreams too.

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I always want you to be successful,  
For your success is my success.



I am so selfish,  
I always want you to achieve your goal,  
For your goal is my goal.

I am so selfish  
That I want you to live long and happy,  
For your life is my life,

I am so selfish,  
I always want you to be away from pain,  
For your pain is mine too,

I am so selfish  
I wish you all the luck, success, wealth, happiness and love.  
I wish that all that you wish always come true  
For darling your dreams are my dreams too

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Python on vacation.....

by

Swayamprava

"Anacondas: The Hunt for the Blood Orchid", I just stumbled upon this movie while scrolling randomly in the T.V channels. I can't understand the sentiment of the western world and their motive behind making such deadly movies. The Jaws, Jurassic Park, Godzilla, Mummy returns....to name a few and now this Anaconda !

A scientific expedition sets out for Borneo to seek a flower called the Blood Orchid, which could grant longer life and keep one young for longer time. A small filthy boat stuffed with two ladies and four young men scientists' crew along with a very talented boatman who can take them in those forests where the blood orchids are blooming aplenty. The junior scientist who discovered this medicinal property was not only loved but quite exploited by her boss cum scientist in this project. On their way to this Jungle, the boat met with an accident during heavy floods in the river and turned into pieces. Thus started their trouble.....! To reach there they had to venture into the deep forests



and there they hunted by this deadly and very poisonous snake called "anaconda", a huge snake of about 100 meter long with a very wide jaw line..... Looking at the ferocity of this reptile they all decided to return back. But the boss was so obsessed with money and fame that he even put the entire crew's life at stake to get those flowers. The slithering snake running through out the forest is so well conceived that you just feel the shudder within and feel the snake in your vicinity. I was watching this in the night time and believe me I felt the ghost of this reptile every where giving me goose bumps time to time....

While watching this movie one real life incident flashed before me.

A year back, one of my husband's colleagues, Capt. Shirsath was sailing in a SCI tanker, which was on a coastal run. From Mangalore port they loaded oil and left for Mumbai ButcherIsland. As usual the ship got unberthed. The ropes were secured in the forward store, for peak store. The ship was pulled out with the help of tugs. The pilot was on board. The ship cleared the channel and pilot was dropped. The sun was just set in but still visibility is there. In this twilight, Capt. Shirsath caught in his own thought proceeded towards the main deck of the ship to check every thing one more time for the audit to be carried in Mumbai. He was just a couple of feet away from the accommodation, where he saw the ropes were staked there below the pipelines. He got irritated and on his walky talky he thwarted his anger on the boson for his negligence. But the boson, on the other hand has got no clue about which rope the captain is talking about.....

"Sir, I had secured every thing in place how come the rope be left behind...Let me see."

Captain's order how come the bosun could deny. Before the boson could go close to the rope he could see something moving. Looking at it both Capt. Shirsath and bosun ran .....puffed breath, putting their heart in their mouth, terribly shaken, frightened and profusely sweating.....entered and closed the door, water tight doors and ran inside the accommodation. While running Capt. Shirsath told, "Seems it's a python on the main deck. My god! Such a huge one! "

Both ran to the bridge and announced in the public announcing system, regarding the presence of a python! Immediately the emergency was sounded...Every door windows of the accommodation wings were closed . They checked and closed every nook and corner of the ship from where the python



could enter inside. But the python had got different plans. The Python followed the Captain and reached the Accommodation deck. It started showing up in the galley window and smoke room window..... Displaying its flickering split tongue it roamed around the ship randomly.....

In a tanker, there are still few areas which are quite open type, like the funnel of the ship, the AC ducts to draw fresh air, Engine room pipes to take the sounding, oil spillage pipes. In ship the AC ducts are really huge ones unlike that of Air crafts. The opening end of the AC somehow resembles that of a small Picher, just like the replica of the same in aircrafts. But in air craft you can't even enter your little finger but here a small baby can easily stuffed inside it....Now this slithering snake has got abundance of chances to enter into the AC duct and show its face at any moment.....It was nightmarish....Nobody could sleep at night thinking this unwanted guest may show up any moment at anybody's cabin.....They can't keep the door ajar, thinking it may enter through the door itself.



The bridge was in more pathetic state... Navigation is done from the bridge with a look out..... Now he was so scared he just shut the door and navigated strictly relying on the ARPA, compass and GPS. Since it is a costal voyage, the presence of fishing boats couldn't be ruled out.....

Capt. Shirsath sent an S.O.S message to SCI and later Mumbai port control to allow them to berth so that the snake can be taken out of the ship..... But ...thanks to Menaka Gandhi and cruelty to animal *jagran*..... SCI arranged forest department to board the vessel arrival Mumbai butcher island.SCI advised Capt. Shirsath to stay calm and look after the python properly. Somehow the Python falls in an endangered species category and forest department was too



delighted to listen that one of them is sailing in a ship.....They sent one cheerful message that, "Captain, we are glad to know that your ship is carrying this endangered species...please take care of the python...feed it with mutton, chicken and its favorites.....don't try to harm it as you may face criminal charges...lol....They sent him a big mail containing, the behavior, feeding habit, the likes and dislikes.

Capt. Shirsath was all baffled, bewildered and couldn't understand to how to tackle the situation..... In the mean time the pilot boat arrived to board the vessel and boarded the vessel safely to take the ship along side Butcher island.

They co-existed in ship side by side....taking care of each other including the python...feeding him time to time and treating him as a guest..... The companies, the charters, the families, the media all sent them with messages wishing safe journey and advices, suggestions kept flowing in.....but no body could help them out to get rid of that beast.....As they reached Mumbai for berthing, The Mumbai pilot was scared to board the vessel and told Capt. Shirsath to take care of their pilot and ensure that he should send back to the pilot station in full one piece.

"Dear capt. we found that your ship is having Python in it.....Looking at the safety aspect of my Pilot I would like to caution you that we had sent our pilot as one piece and we want him back in one piece too...."

After berthing in Mumbai port the forest department sent the good news that they had arranged one fellow who can catch the snake alive. The snake catcher finally arrived on board. He instructed captain to arrange four five strong people to help him out. The crews get ready on the deck and he made a small demo before them, on "what to do" and "how to do" while catching the snake .As a little mistake could prove fatal for him.....

The snake catcher went ahead and caught the snake's hood in its strong grip. As he caught it the snake started rolling around him like a coil engulfing totally into its grip. But as instructed these five six strong crews caught hold of its tale and started uncoiling it.....After about a half an hour struggle the snake was caught and put inside a box and transported back to Mangalore .....

P.s....Based on real life incident....Shared by Capt. Shirsath

Question : How did the python board the tanker in Mangalore ? Can you guess !



\*\*\*\*\*Shipping Section\*\*\*\*\*

Behavior based Safety (BBS)

BBS emphasizes that take active responsibility for safety of each other. Target observable behavior, focus on positive consequence we expect to receive i.e. change unsafe to safe behavior; monitor behavioral trends of each individual or group everyday / week / month in order to understand percentage of safe and at-risk behaviors across departments during the years.

Total safety culture encompasses that safety mechanisms are in place and active, and then implementing BBS gives wonderful results. According to a senior safety professional, "punishment never works for sustainable results for safety in organizations". Another safety professional added, "BBS is going to be one of the best components of safety in the years to come". According to another senior safety professional, "you may have operational controls at the workplace; you may have told employees for safety, human beings still meet with accidents due to unsafe behaviors". BBS believes that psychological change can be achieved with repeated and active care of each other. BBS underlines that when 80-90 percent of accidents and injuries are due to unsafe behaviors; let us focus on unsafe as well as safe behaviors. Behavior is objective, definable, observable, correctable and measurable.

A chief safety objective of every plant is to achieve zero accident. Since safety in the organization can not be less than 100%; the participation of employees from every plant in safety also has to be not less than 100%. That is what Behavior Safety is all about.

We can accomplish this objective if we train every workman / employee on the concept and process of behavioral safety. Before training of employees, we need to sensitize or promote the concept of Behavior Based Safety (BBS) among the HOD's, and front-line managers.

Why Behavioral Safety?

Research and experience indicate that:

1. 90% or more of the accidents are due unsafe human acts or behaviors;
2. 50% of the unsafe behaviors are identified or noticeable at any plant at any



given point of time;

3. 25-30% of safety awareness is lacking among employees which gets reflected in their unsafe behaviors;

4. Unsafe behaviors are at the core of any near misses, injury, accidents. If we control unsafe behaviors, we may not even have near misses.

So we need to focus our efforts on unsafe and safe behaviors in safety.

BBS secret of success is that the safety control is in hands of each employee, they feel empowered and responsible.

### What Behavioral Safety Training Does?

BBS is one of the best and latest safety approaches. BBS is process of repeatedly going to an employee and making random observations till he reaches safe behaviors and learns the concept of self-observation and observing others for safe performance. Eight aspects that behavioral safety takes care of in order to prevent unsafe behaviors and promote safe behaviors are:

1. PPE
2. Housekeeping
3. Using tools and equipment
4. Body positioning / protecting
5. Material handling
6. Communication
7. Following procedures
8. Visual focusing

With the help of a checklist, BBS trained observers create data on the above eight critical behaviors to guide their observations. Each observer observes at least one of his co-workers daily. If there are 500 workmen, 500 checklists are created per day on unsafe and safe behaviors in the organization, this way safety becomes a daily reminder which in essence builds safety culture.

We can almost daily-check an increase or decrease in unsafe and safe behaviors by creating this BBS data base.

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## **VOC MANAGEMENT PLANS FOR TANKERS CARRYING CRUDE OIL**

{ Tankers carrying Crude Oil are Required to have a VOC management plan approved by administration , which will be applicable from 1<sup>st</sup> July 2010 as required by MARPOL Annex VI Regulation 15.6, MEPC.185 ( 59) and MEPC.1/Circ.680

\* MEPC :- Maritime environmental protection committee of IMO }

### **Introduction**

VOC is an acronym that stands for Volatile Organic Compounds. VOC are components of hydrocarbon liquids such as crude oil and condensate. VOC means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. However, there is a list of compounds that are excluded from being VOC because they have negligible photochemical reactivity such as methane, ethane, and fluorinated and chlorinated hydrocarbons.

This technical information is compiled pursuant to the requirements in MARPOL Annex VI Regulation 15.6, and describes the general equipment, operations and conditions onboard a crude oil tanker with respect to the emission and ability to control Volatile Organic Compound (VOC) emissions.

The Guidelines for the development of a VOC management plan state:

### **Objectives**

The purpose of the VOC management plan is to ensure that the operation of a tanker, to which regulation 15 of MARPOL Annex VI applies, prevents or minimizes VOC emissions to the extent possible..2 Emissions of VOCs can be prevented or minimized by:

1. optimizing operational procedures to minimize the release of VOC emissions; and/or
2. using devices, equipment, or design changes to prevent or minimize VOC emissions.
3. To comply with this plan, the loading and carriage of cargoes which generate VOC emissions should be evaluated and procedures written to ensure that the operations of a ship follow best management practices for preventing or minimizing VOC emissions to the extent possible. If devices, equipment, or design changes are implemented to prevent or



minimize VOC emissions, they shall also be incorporated and described in the VOC management plan as appropriate.

4. While maintaining the safety of the ship, the VOC management plan should encourage and, as appropriate, set forth the following best management practices:
5. the loading procedures should take into account potential gas releases due to low pressure and, where possible, the routing of oil from crude oil manifolds into the tanks should be done so as to avoid or minimize excessive throttling and high flow velocity in pipes;
6. the ship should define a target operating pressure for the cargo tanks. This pressure should be as high as safely possible and the ship should aim to maintain tanks at this level during the loading and carriage of relevant cargo;
7. when venting to reduce tank pressure is required, the decrease in the pressure in the tanks should be as small as possible to maintain the tank pressure as high as possible;
8. the amount of inert gas added should be minimized. Increasing tank pressure by adding inert gas does not prevent VOC release but it may increase venting and therefore increased VOC emissions; and
9. when crude oil washing is considered, its effect on VOC emissions should be taken into account. VOC emissions can be reduced by shortening the duration of the washing or by using a closed cycle crude oil washing programme.

#### **Additional considerations**

A person in charge of carrying out the plan, shall be designated in the VOC management plan to be responsible for implementing the plan and that person may assign appropriate personnel to carry out the relevant tasks;

Procedures for preventing or minimizing VOC emissions Ship-specific procedures should be written or modified to address relevant VOC emissions, such as the following operations:

Loading;

Carriage of relevant cargo; and

Crude oil washing;

If the ship is equipped with VOC reduction devices or equipment, the use of these devices or equipment should be incorporated into the above procedures as appropriate.



## Training

The plan should describe the training programmes to facilitate best management practices for the ship to prevent or minimize VOC emissions.

### **Section 1 - The hull and its pressure limitations**

#### **Allowable cargo tank ullage pressure**

The cargo tank structure is designed to withstand a range of design loads and parts of the tank structure will also contribute to the global longitudinal strength of the ship. The classification societies' specified load conditions and loads are applied in verification of the structural design. One such load is the combined pressure from the liquid cargo and the tank ullage pressure. The tank ullage pressure is to be minimum 25 kN/m<sup>2</sup> or the opening pressure of the pressure relief device (P/V valve), whichever is greater. Accordingly, the maximum allowable ullage pressure in a standard tanker is typically interpreted as 25 kN/m<sup>2</sup> (i.e. approximately 2,550 mmWG). It should however be noted that global strength considerations and the impact of other design loads may imply that actual allowable pressure could be higher.

In terms of under pressure, SOLAS regulation II-2/11.6 indicates an allowable under pressure of -700 mmWG. From a structural point of view, the maximum allowable tank under pressure is presumably lower. Exceeding the maximum allowable pressures could lead to structural failures. If such a structural failure results in opening of the tank structure to atmosphere, uncontrolled VOC emissions will occur together with the possibility of oil pollution to the seas. Further, it could result in loss of inert gas protection with subsequent hazards related to fire and explosion.

#### **Typical cargo tank venting systems**

The design of cargo tank venting and inert gas systems is governed by SOLAS regulation II-2/11.6 and 5. Most crude oil tankers have a common cargo tank venting and inert gas main pipeline which is also used for vapour emission control (ref. section 4). Branches to each cargo tank are provided with isolation valves and blanking arrangements. The isolation valves and blanks are typically only used in connection with tank entry. SOLAS chapter II-2 requires that the isolation valves are to be provided with locking arrangements to prevent inadvertent closing/opening of said tanks. The cargo tank venting/inert gas main is connected to a mast riser. The mast riser has a minimum height of 6 metres with an IMO approved flame arrestor at its outlet. An isolation valve is provided between the cargo tank venting/inert gas main and the mast riser. Some designs have a small capacity pressure/vacuum valve fitted in a bypass across the isolation valve. This latter enables thermal breathing from cargo tanks when the



isolation valve is closed. A liquid-filled P/V breaker is typically connected to the cargo tank venting/inert gas main. The P/V breaker has a capacity to accommodate the gas flow from cargo tanks during loading (125% of the loading rate and discharge rate). The cargo tank venting/inert gas main is typically used during loading and discharging operations. During loading the mast riser valve is open (unless vapour emission control is performed) and VOC is expelled to air. During discharge the same valve is closed and inert gas used to replace the tank atmosphere. The cargo tank venting/inert gas main is also used during voyage but the mast riser valve will be operated only in the event of increasing ullage pressure.

In addition to the common cargo tank venting/inert gas main, each cargo tank is required to have a pressure/vacuum relief device for thermal breathing in the event the cargo tank is isolated from the common cargo tank venting/inert gas main. Although classification societies accept that these devices have the capacity to accommodate gas volumes resulting from variations in cargo temperature only (i.e. thermal breathing), latest industry practices have led to the installation of devices with the capacity to accommodate the full gas flow from loading of cargo tanks.

### **Typical settings of pressure/vacuum relief devices**

Although the design pressure of cargo tanks is typically +2,500 mmWG and -700 mmWG, the typical setting of pressure/vacuum valves on crude tankers is +1,400 mmWG and -350 mmWG. 1.3.2 The typical settings of the P/V breakers are +1,800 mmWG and -500 mmWG. It should be noted that for liquid filled P/V breakers, the settings have to take into account ship movement (rolling and pitching) as specified by the classification societies.

## **Section 2 - Crude Oil Tanker Pressure control/release systems**

### **Introduction**

Traditionally, vapour release from crude oil tankers occurs on three discrete occasions, they being: during loading, during the loaded voyage to the discharge port, and during the ballasting of cargo tanks at the discharge port. Since the introduction of the International Convention for the Prevention of Pollution from Ships together with its Protocol in 1978 (MARPOL), tankers built after 1 June 1982 (regulation 18), termed MARPOL tankers, are all designed with the required totally segregated

(designated) ballast tanks. With these regulations in force, cargo tanks are never used for the loading of ballast, except on very rare occasions for bad weather purposes where one of the Crude Oil Washed cargo tanks is dedicated to take in ballast water. Therefore, the displacement of vapour from the relevant crude oil cargo tank at the discharge port has ceased to occur for the



MARPOL compliant type tankers. Given this situation then, only two occasions remain where vapour emissions from crude oil tankers generally occur, namely on loading and during the transportation of the cargo.

## Section 6 – Training Programme

A training programme is to be developed for the persons intended to assume overall charge of the VOC management on board each ship. The programme is to include the following:

An introduction to the purpose of VOC emission control:

Volatile organic compounds (VOCs) may be toxic, and when they evaporate into the air they can react with Nitrogen Oxides (NOx) in sunlight and split apart oxygen molecules in air and thereby form ground-level ozone, commonly referred to as smog. The layer of brown haze it produces is not just an eyesore, but also is a source of serious illnesses. Ozone is extremely irritating to the airways and the lungs, causing serious damage to the delicate cells lining the airways. It contributes to decreased lung function, increased respiratory symptoms and illnesses.

### Regulation 15 of MARPOL Annex VI

An introduction to the principles of VOC emission control:

VOC generation systems in crude oil (ref. section 3)

Crude oil tanker pressure control/release systems (ref. section 2)

General VOC emission control options:

Methods and systems for the control of VOC emissions (ref. section 4)

Ship specific VOC emission control options:

Ship specific methods and systems for the control of VOC emissions

Monitoring and recording of VOC release:

Methods for monitoring and recording of VOC emissions (ref. section 5)

Hazards and Safety related to VOC emission control:

.The hull and its pressure limitations (ref. section 1)

.Personnel safety hazards related to exposure to crude oil vapour.

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{We, at Swayam Maritime Academy are conducting VOC Training course as required above in section 6 of VOC Management plan and implementation.

For further enquiry pls call : - 022 27450109 (Mon-Sat - 10 to 5 o'clock)

Mob: - 9768770865 (24/7)}

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## AMENDMENTS TO THE INTERNATIONAL MANAGEMENT CODE FOR

### THE SAFE OPERATION OF SHIPS AND FOR POLLUTION PREVENTION (INTERNATIONAL SAFETY MANAGEMENT (ISM) CODE)

#### **1 GENERAL**

##### **Section 1.1 Definitions**

1 In paragraph 1.1.10, the words .and includes. are replaced by the word .or

##### **Section 1.2 Objectives**

2 The existing subparagraph .2 of paragraph 1.2.2 is replaced by the following:

**2 assess all identified risks to its ships, personnel and the environment and establish appropriate safeguards; and..**

#### **5 MASTER'S RESPONSIBILITY AND AUTHORITY**

3 The word .periodically. is added at the beginning of paragraph 5.1.5.

#### **7 DEVELOPMENT OF PLANS FOR SHIPBOARD OPERATIONS**

4 The existing section 7 is replaced by the following:

##### **.7 SHIPBOARD OPERATIONS**

The Company should establish procedures, plans and instructions, including checklists as appropriate, for key shipboard operations concerning the safety of the personnel, ship and protection of the environment. The various tasks should be defined and assigned to qualified personnel.

#### **8 EMERGENCY PREPAREDNESS**

5 The existing paragraph 8.1 is replaced by the following:

8.1 The Company should identify potential emergency shipboard situations, and establish procedures to respond to them.

#### **9 REPORTS AND ANALYSIS OF NON-CONFORMITIES, ACCIDENTS AND HAZARDOUS OCCURRENCES**

6 The existing paragraph 9.2 is replaced by the following:



9.2 The Company should establish procedures for the implementation of corrective action, including measures intended to prevent recurrence.

## **10 MAINTENANCE OF THE SHIP AND EQUIPMENT**

7 In paragraph 10.3, the words .establish procedures in its safety management system to. are deleted.

## **12 COMPANY VERIFICATION, REVIEW AND EVALUATION**

8 Paragraph 12.1 is replaced by the following:

12.1 The Company should carry out internal safety audits on board and ashore at intervals not exceeding twelve months to verify whether safety and pollution-prevention activities comply with the safety management system. In exceptional circumstances, this interval may be exceeded by not more than three months..

9 In paragraph 12.2, the words .efficiency of and, when needed, review. are replaced by the words .effectiveness of..

## **13 CERTIFICATION AND PERIODICAL VERIFICATION**

10 The following new paragraphs 13.12, 13.13 and 13.14 are added after the existing paragraph 13.11:

.13.12 When the renewal verification is completed after the expiry date of the existing Safety Management Certificate, the new Safety Management Certificate should be valid from the date of completion of the renewal verification to a date not exceeding five years from the date of expiry of the existing Safety Management Certificate.

13.13 If a renewal verification has been completed and a new Safety Management Certificate cannot be issued or placed on board the ship before the expiry date of the existing certificate, the Administration or organization recognized by the Administration may endorse the existing certificate and such a certificate should be accepted as valid for a further period which should not exceed five months from the expiry date.

13.14 If a ship at the time when a Safety Management Certificate expires is not in a port in which it is to be verified, the Administration may extend the period of validity of the Safety Management Certificate but this extension should be granted only for the purpose of allowing the ship to complete its voyage to the port in which it is to be verified, and then only in cases where it



appears proper and reasonable to do so. No Safety Management Certificate should be extended for a period of longer than three months, and the ship to which an extension is granted should not, on its arrival in the port in which it is to be verified, be entitled by virtue of such extension to leave that port without having a new Safety Management Certificate. When the renewal verification is completed, the new Safety Management Certificate should be valid to a date not exceeding five years from the expiry date of the existing Safety Management Certificate before the extension was granted.

## **14 INTERIM CERTIFICATION**

11 In paragraph 14.4.3, the word .internal. is inserted after the words planned the..

### **Appendix**

**Forms of the Document of Compliance, the Safety Management Certificate, the Interim Document of Compliance and the Interim Safety Management Certificate**

#### **SAFETY MANAGEMENT CERTIFICATE**

12 The following new form is added after existing form of .ENDORSEMENT FOR INTERMEDIATE VERIFICATION AND ADDITIONAL VERIFICATION (IF REQUIRED).:

**Certificate No.**

**ENDORSEMENT WHERE THE RENEWAL VERIFICATION**

**HAS BEEN COMPLETED AND PART B 13.13 OF**

**THE ISM CODE APPLIES.**

From 1<sup>st</sup> July, 2010 Risk assessments should be carried out on board before carrying out various operations as required by company's SMS. Risk Assessment forms will be asked by auditors to verify ISM code amendment compliance.

{ We, at Swayam maritime Academy are carrying out Risk Assessment course which is of 2 days duration to ensure officers carrying out Risk assessment are aware of this aspect. We also conduct training programme of Accident Investigation - 2days programme on various methods of investigation like DNV MSCAT, STEP, 5 WHY & FAULT TREE etc and 1 day training programme for



## Safety Officer and Behaviour Based Safety (BBS) using START (Safe Today And Return Tomorrow) }

### And ...Smile Please...

#### Who's Boss?

Who's Boss?

When the Lord made man, all the parts of the body argued over who would be boss.

The brain explained that since he controlled all the parts of the body, he should be boss.

The legs argued that since they took man wherever he wanted to go, he should be boss.

The stomach countered with the explanation that since he digested all the food, he should be boss.

The eyes said that without them, man would be helpless, so he should be boss.

Then the ass hole applied for the job...

The other parts of the body laughed so hard that the ass hole became mad and closed up.

After a few days, the brain went foggy, the legs got wobbly, the stomach was ill, the eyes got crossed and unable to see.

They all conceded and made the ass hole boss.

This proves that you don't have to be a brain to be a boss.

Just an asshole.  

Courtesy :- Forward Mail