



CHEMICAL MARINE

Axel Kahl

Simplifying the SMS

KIS - Keep It Simple

The SMS

According to the ISM code

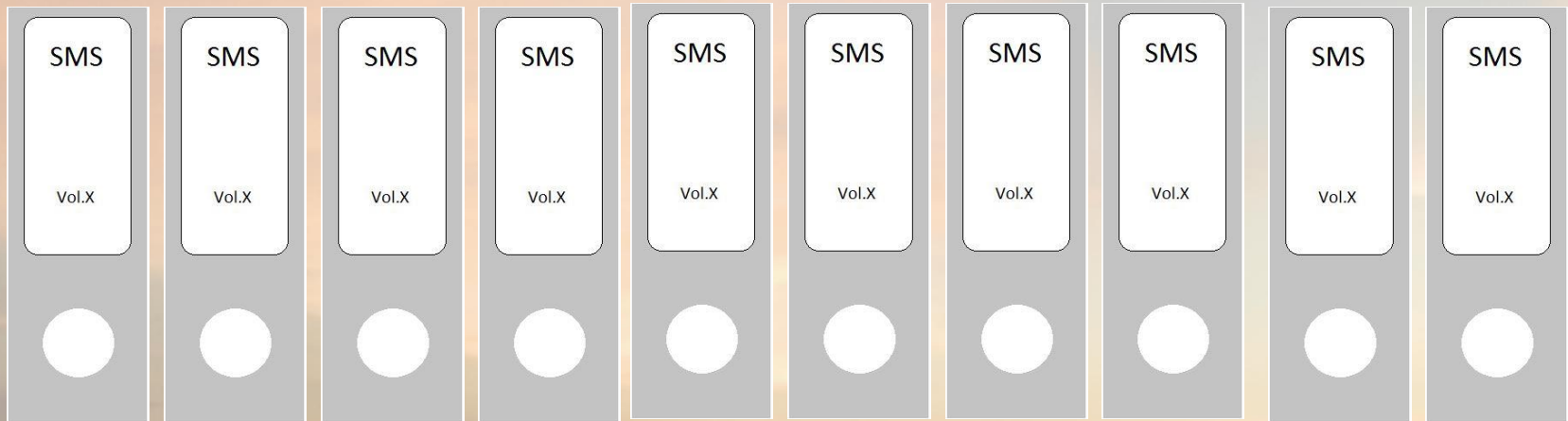
Every Company should develop, implement and maintain a Safety Management System which includes the following functional requirements:

- a safety and environmental protection **policy**;
- **instructions and procedures** to ensure safe operation of ships and protection of the environment in compliance with relevant international and flag State legislation;
- defined **levels of authority** and lines of communication between, and amongst, shore and shipboard personnel;
- **procedures for reporting** accidents and non-conformities with the provisions of this Code;
- **procedures** to prepare for and respond to **emergency** situations; and
- **procedures** for internal **audits** and management **reviews**.

The SMS

Start of an SMS

In the beginning the SMS has a decent size including procedures and policy's
But during the next years following usually happens:



It is growing

Why it is growing: Another procedure



THE SMS

Written for:
The crew on board.

But does the SMS still reflect the work on board?



Written by:
The team ashore.

Changing procedures

Direction of a procedure
after changes due to
inspection, audit, review
or other



The SMS

Issues when writing or updating a SMS

- **Easy and simple Language:** It must be taken into consideration that a SMS is written for the people on board company vessels and NOT for 3rd party.
- **Avoiding Duplications:** Duplications making updates of procedures very difficult. Same will cause contradictions over time.
- **Avoiding Contradictions:** Contradictions and conflicting statements MUST be avoided because same will force the crew to deviate from procedures.
- **Correct Procedures:** Only if a procedure is reflecting the work on board the vessels correctly, compliance can be expected.

The SMS

Issues when writing or updating a SMS

- **Double-check:** When was the person, writing the company procedures, last time sailing with a company vessels verifying that the procedures are actually correct and workable?
If the crew is forced to deviate from a procedure because same is not correct,
- **Leading by Example:** Only if all shore staff is fully complying with the SMS procedures, it can be expected that the crew will do the same.
you are loosing control over the SMS!
- **Compliance:** Is expected BUT: only possible if the SMS is written in way taken the principles (as some mentioned) into consideration.

The SMS

Issues when writing or updating a SMS

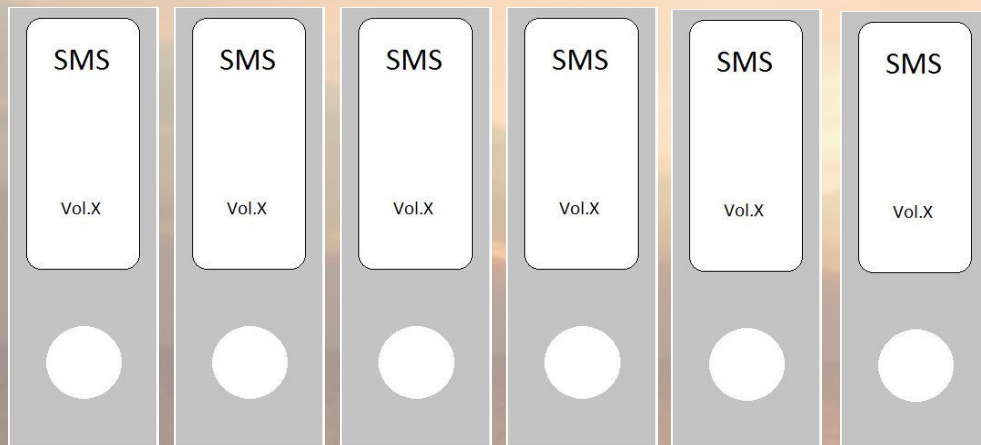
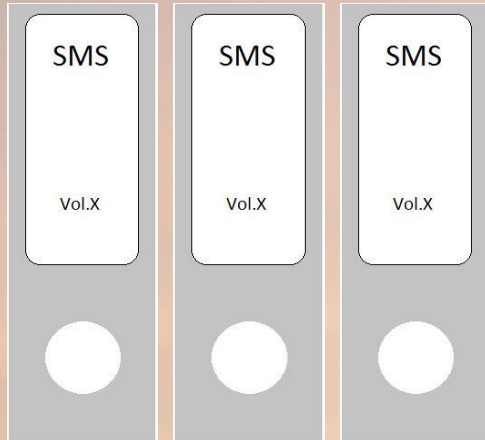
Danger of Copy / Paste

- ❖ **Copy / Paste of Regulations:** Some important items might be copied and included in the SMS BUT: In general it is important to include the interpretation of the company into the SMS rather than a simple Copy / Paste of the documents, also due to the wording of the same.
- ❖ **Copy / Paste of Industry Guidelines:** Same as above!
- ❖ **Copy / Paste of other and 3rd party procedures:** It is essential understanding that procedures are written for the individual company's, vessels and trade. Although similar procedures might be applicable to a certain extend, they will never fulfill YOUR company requirements 100%

The SMS

KIS = KEEP IT SIMPLE

Procedures could contain only a couple of pages and an executive summary on the Procedures first page



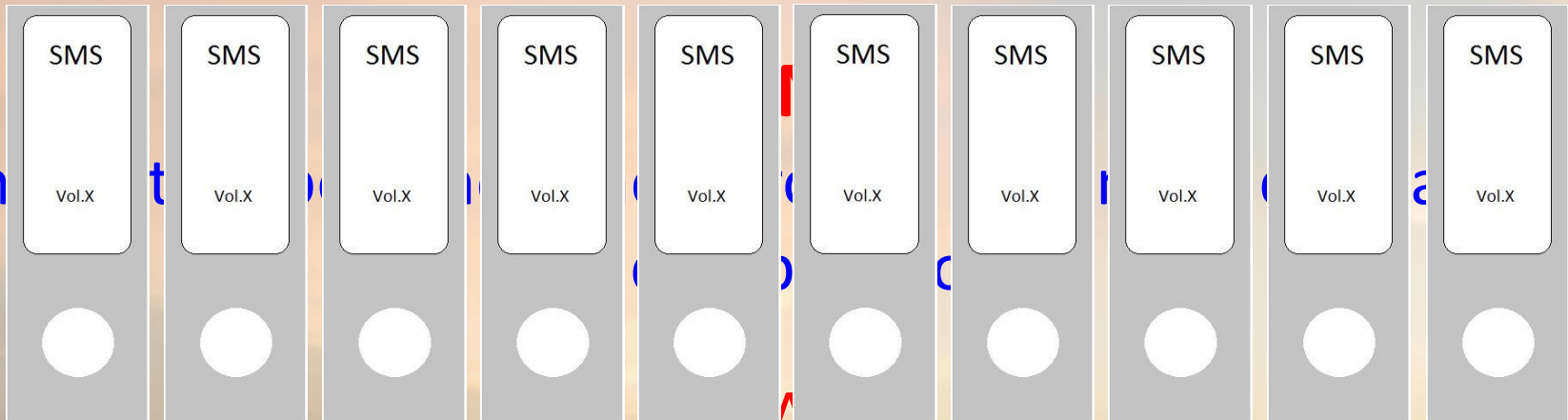
All other information could be in additional information

Electronic SMS

Can be a great system **IF**

It is User-friendly !

It is Controlled !



What about the size?

It might help to print it out once a year and just measure it.

Risk Management

Are we loosing the focus?

You need to do a Risk
Assessment

Risk assessment

Risk assessment

Risk assessment

Risk assessment

Risk assessment

Risk assessment

Risk assessment

Risk assessment

Risk assessment

Risk assessment

Hazard Register (H.R.)

A Company H. R. can cover many occupational health and standard operations. For example:

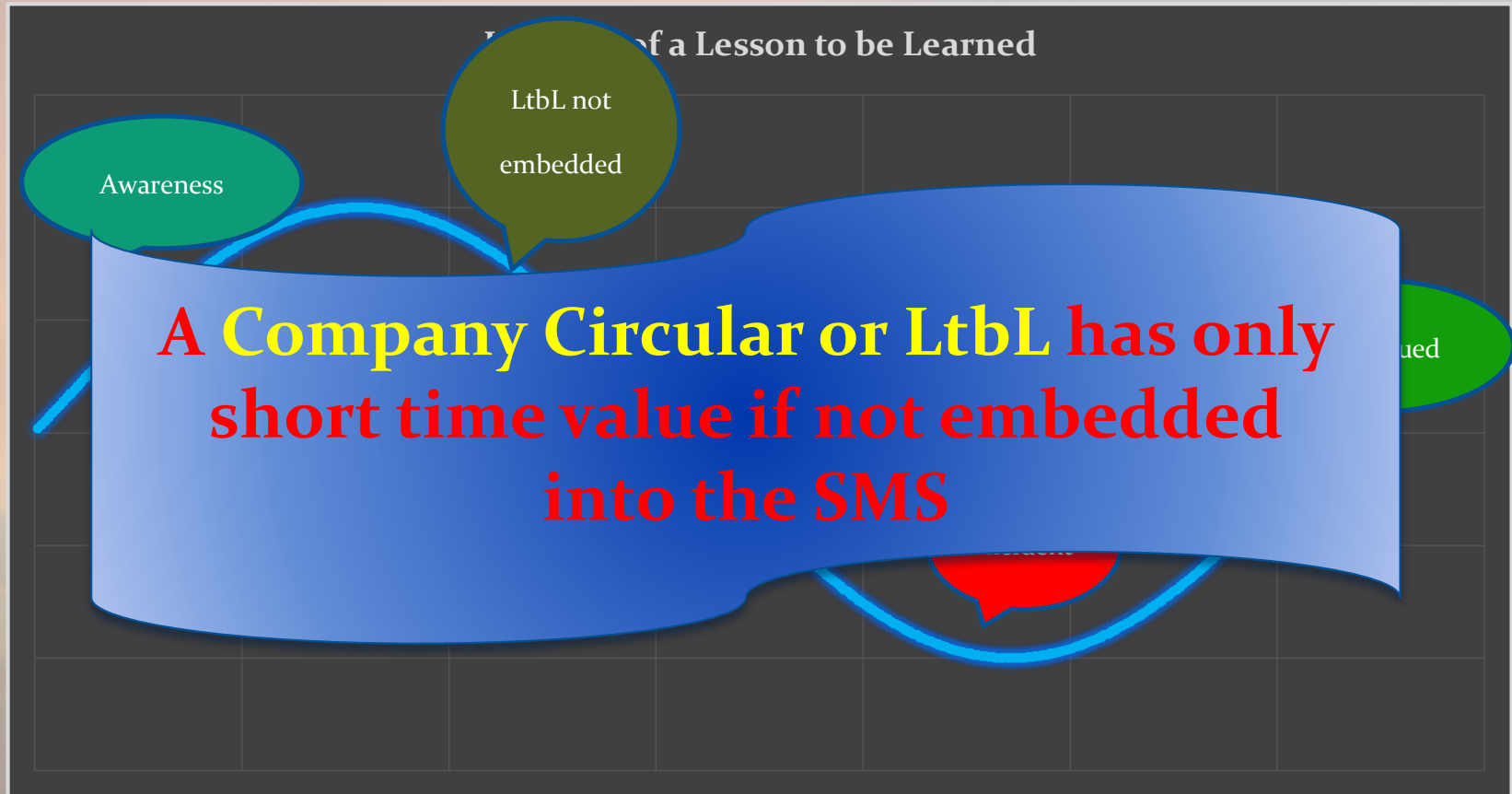
- **General Shipboard Operations**
 - **Deck Department**
 - **Engine Department**
 - **Navigation**
 - **Weather**
 - **Inert Gas**
 - **Cargo Operations**

The Hazard Register

Company Hazard Register List

Hazard	Location	Threat	Top Event	Potential Consequences	Potential Risk					System Controls in place	Technical Controls in place	Actual Risk					ALARP	Responsible for verification	Accountable for verification	Example Reference
					L	M	H	S	P			A	E	R						
					P	A	E	R	P			A	E	R						
Part B - General shipboard operation																				
Part B - General shipboard operation																				
Vessel access	In Port At Pilot station At anchor	Slippery surface Equipment failure Maintenance failure Poor lighting Human error Lack of PPE Moving vessel	Loss of control (Fall) Health Hazard	Injury Disability Fatality	D 4 B 1 B 1 C 1	Procedure IX														
Falling from height (>2m)	At any time	Slippery surface Equipment failure Maintenance failure Poor lighting Human error Lack of PPE Moving vessel	Loss of control (Fall) Health Hazard	Injury Disability Fatality	D 4 B 1 B 1 C 1	PPE - Procedure XI														
		Slippery surface Equipment failure Maintenance failure		Injury		PPE - Procedure XI Housekeeping - Procedure XI														
Part L - Cargo Operations Chemical (Reactive)																				
Self-reactive Loading / Discharging	At sea (STS) and in port	Human error Lack of awareness Storage failure Inadequate PPE Maintenance failure Equipment failure	Loss of primary containment (Reaction)	Injury Fatality Pollution Fire & Explosion Asset damage	B 3 B 2 B 2 B 3	IBC Code Tanker Safety Guide Chemicals MSGS Procedure IX														
Self-reactive Transit	At any time	Human error Lack of awareness Storage failure Inadequate PPE Maintenance failure Equipment failure	Loss of primary containment (Reaction)	Injury Fatality Pollution Fire & Explosion Asset damage	B 3 B 3 B 1 B 3	IBC Code Tanker Safety Guide Chemicals MSGS Procedure IX														
Self-reactive Tank Cleaning	At any time	Human error Lack of awareness Storage failure Inadequate PPE Maintenance failure Equipment failure	Loss of primary containment (Reaction)	Injury Fatality Pollution Fire & Explosion Asset damage	B 2 B 1 B 1 B 3	IBC Code Tanker Safety Guide Chemicals MSGS Procedure IX														
Water-reactive Loading / Discharging	At sea (STS) and in port	Human error Lack of awareness Storage failure Inadequate PPE Maintenance failure Equipment failure	Loss of primary containment (Reaction, Contact to product)	Injury Fatality Pollution Fire & Explosion Asset damage	B 3 B 2 B 2 B 3	IBC Code Tanker Safety Guide Chemicals MSGS Procedure IX														
Water-reactive Transit	At Sea	Human error Lack of awareness Storage failure Inadequate PPE Maintenance failure Equipment failure	Loss of primary containment (Reaction, Contact to product)	Injury Fatality Pollution Fire & Explosion Asset damage	B 4 C 5 C 2 C 2	IBC Code Tanker Safety Guide Chemicals MSGS Procedure IX												Sun Wing (2015)		
		Human error Lack of awareness		Injury Fatality		IBC Code Tanker Safety Guide Chemicals														

Company circulars & Lesson To Be Learned



Summary

Why procedures are not followed

- ❖ Too complex Manuals and Procedures.
- ❖ Procedures are disconnected from the work on board.
 - ❖ Wrong interpretation of industry guidelines.
 - ❖ Too many Forms.
 - ❖ Poor layout of forms.
- ❖ Too many changes of the SMS due to inspections, audits, reviews and other.

Summary

Why procedures are not followed

- ❖ Lack of training of the company SMS.
- ❖ Procedures are too difficult to understand.
- ❖ Lack of adopting guidance from the seagoing crew.
- ❖ Planned deviation from the SMS due to
- ❖ And

Solutions

Following could be taken into consideration to refresh the SMS from time to time:

Masters Review

- The Masters SMS review, performed annually, is a very valuable input to the SMS if done correctly (unfortunately not performed always seriously).

Consolidating procedures

- During the time more and more procedures are included in the SMS. A review of the system and consolidating procedures could reduce the SMS by a couple of hundred pages in some cases.

Solutions

Following could be taken into consideration to refresh the SMS from time to time:

Simplify and reducing Forms

- **Simplify forms in order that they can be completed and understood easily.**
- **Review the forms annually if they are still needed.**

Re-write the SMS

- **After a couple of year the SMS has been updated various times and a certain point a company might like to consider re-writing the SMS**

Solutions

Following could be taken into consideration to refresh the SMS from time to time:

Circular Letters

- **Circular Letters are popular to include new guidance and processes in short time. However, after 12 month the circulars should be either embedded in the SMS or removed.**

Company Hazard Register

- **Including a Company Hazard Register as supplement to the SMS could avoid the crew performing various risk assessments for standard (routine) operations.**

Solutions

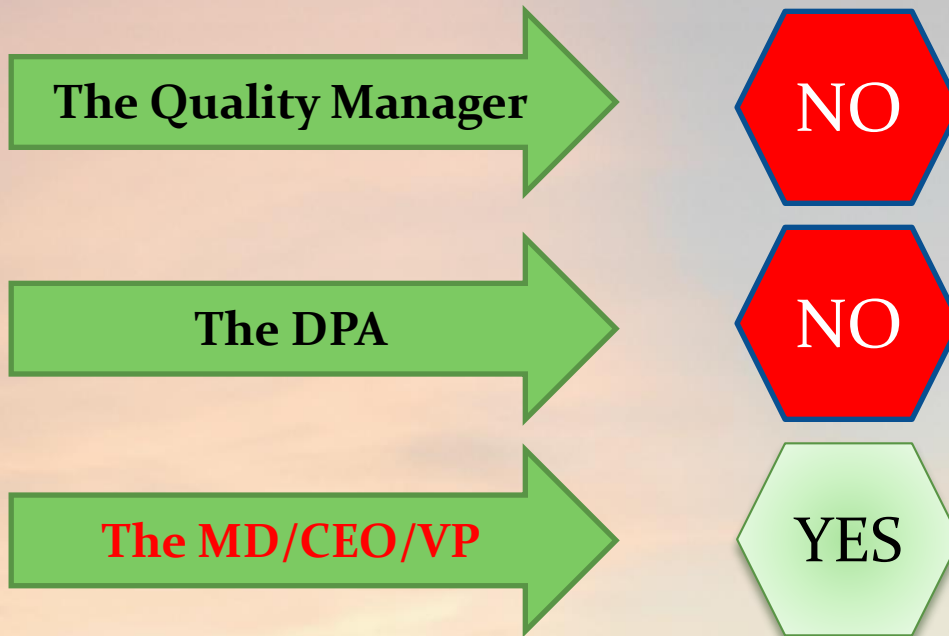
Following could be taken into consideration to refresh the SMS from time to time:

An Independent Management review:

Why? It just cost money and time!

- **It is Independent**
- **Highlighting any exposure of the senior management as identified.**
- **Reality Check: Getting an opinion without any conflict of interest**
 - **Not involved in any commercial activities of your company.**
 - **Open reporting because total independent from the company.**
- **AND: It is for guidance only - you can take the recommendations into consideration but you don't have to do so.**
- **Also: can be used for continuous improvement, if carried out in regular intervals.**

Who usually signs off the SMS?



BUT do you know what you do not know?

Thank you

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