

Experience in Implementing Behavioural Safety Programme for the Marine Transport of Nuclear Materials for Pacific Nuclear Transport Ltd & British Nuclear Fuels Limited

Mr Dave Billing, Mr Steve McGrath, BNFL International Transport, UK.

Understanding Behavioural Safety

- Basic Idea :** Understand our/others behaviour. Not redesign the ships From everybody
- Buy In :** Management/Officers/Crew
- Participation :** Everyone should participate Only volunteers observe
- Action Tracking :** Action should be addressed quickly
- Feed Back :** There must be visible feedback
- Ownership :** By the crews, for the ships

Aims and Objectives

- To raise personal safety awareness
- To reduce accidents
- Motivate individuals to eliminate unsafe behaviour that leads to injury

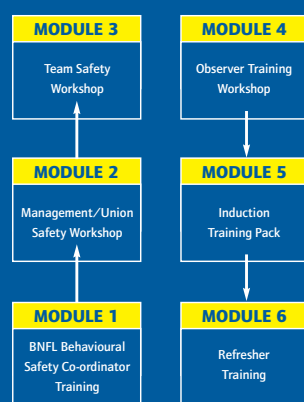
What are the benefits of Behavioural Safety?

- Allows participation from all levels of the workforce
- An improvement in safety attitudes/culture
- Individuals receive feedback on their own safety performance, increases self awareness and risk perceptions
- Improved company safety performance, leading to
 - further business
 - greater job security

Key Learning from Observations to Date

- Leadership is a key element in the process
- Process fluctuates
- Continuous vigilance
- Leave effects Observations people must be targeted as soon as they come back
- Poor feedback reduces future Observations
- Because the process is voluntary, the workforce attitude can effect the process
- It is a process and needs continual refresher training and encouragement
- Participants are now looking at their own behaviours rather than the plant and equipment
- Trends can predict future target areas

Training Plan for Behavioural Safety



Difficulties Encountered

Process back up
Feedback loop
Organised structure
Time scales releasing crewmembers
Transmittal of Observation forms

Implement changes

Recruited a project Manager
Consulted Marine Advisers
Designed Structure
Choose Co-ordinators
Provided process back-up
Drew up project plan
Implemented feed-back loop
Rolled-out the process
Reviewed systems

Successes

Rolled out to time & budget
98% of crewmembers trained
44% of crewmembers volunteered to be observers
Now receiving regular observation forms
Demonstratable culture changes

Decide to implement Behavioural Safety

Run Pilot
Learn from Experience
Address findings
Project Plan
Role out
Review
Monitor

The Safety Jigsaw



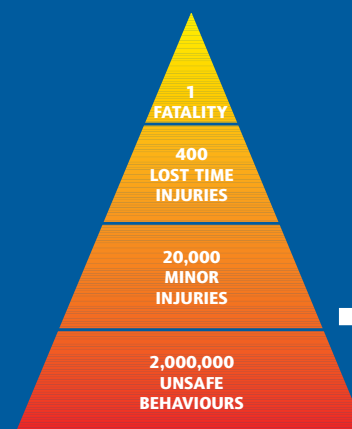
Role of an Area Behavioural Safety Co-ordinator for PNTL

- Responsible for the BBS processes on board the vessel
- Give encouragement and feedback when necessary
- Ensure all Observation forms are completed correctly
- Forward the Observation forms to the Action Plan Manager at the first available opportunity
- Rapid response to actions that can be addressed immediately
- Ensure all work emanating from the Observation forms is uniquely identified, on the vessel work list
- Identify Learning from Experience
- Give coaching where and when required
- Be a role model
- Strive to better minimum targets
- Inform the Action Plan Manager of any Maritime peculiarity to the process
- Promote and encourage participation in the Behavioural Safety Programme

Obstacles to Safe Working

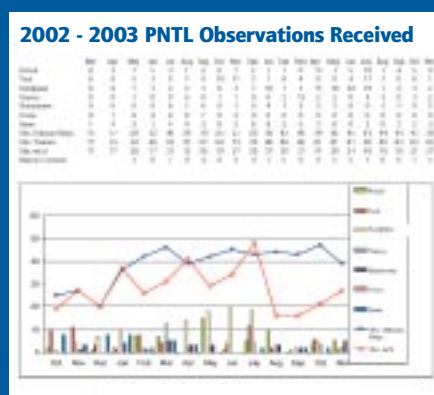
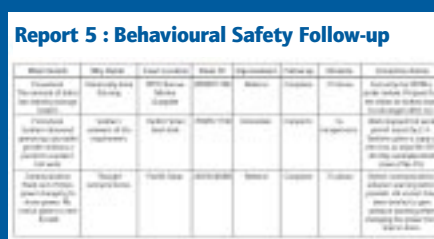
- Why do people perform unsafe behaviours?
They choose to or are forced to
- some factors encourage unsafe behaviour
- some factors prevent safe behaviour
- These factors are called **OBSTACLES**
We must recognise the obstacles to safe working and remove them for improvements in safety to occur!
- Inexperience and over-familiarity
- Organisational Systems
- Accountability and recognition
- Plant and equipment
- Disagreement on Safe Practices
- Personal Factors
- Culture
- Personal Choice

Heinrich Safety Performance Model



Date	Vessel No.	Observer	Supervisor	Officer	Deck Officer	Other	Time	Location	Task	Observation	Action	Feedback	Observer	Supervisor	Officer	Deck Officer	Other	

Examples of information and good practices shared within PNTL from Behavioural Safety Observations

Behavioural Safety Observations

We have recently received an Observation where a crewmember was walking on top of a swung out lifeboat, during a drill, with no lifeline. We cannot stress enough the need for safety items to be worn during routine operations on board ship.

Another Observation pointed out the perennial problem with contractors not wearing correct PPE. It is very important that when contractors are working on board they comply with our Health, Safety and Environment Policy. They should not be allowed to continue with the work until Ship's Officers are satisfied that the proper precautions are in place.

Behavioural Safety Feedback

31st July 2002.

This is the first of, hopefully, many feedback letters concerning the BNFL Behavioural Safety Observations. Please pin this up on the notice board as it is for the information of all on board and not only for BBS Observers.


We have received and forwarded many Observations to Sellafeld for inclusion in the database which will provide us all with safety trends.

It is obviously difficult to respond personally to each Observation, especially as the system is anonymous and we cannot match up Observer numbers to names so we will try to provide feedback by means of these letters.

A great number of the early Observations highlighted the fact that PPE was not being worn when it should have been. We have recently received very few of this type of Observation which may mean that PPE is being worn more often.

A recommendation was made, through one of the Observations, that the Company should provide sun block to ship's staff and another suggested providing sunglasses. At present we are looking into the pros and cons of providing these items for people working on deck.

We are receiving a number of Observations where comments like "The person was advised to..." or "The seafarer was told to..." which are not proper Observations.



Safety Flash

Please remember that there should be a commitment, on the part of the person being observed, to improve their safety. These Observations are difficult to close out as no commitment has been received. Please endeavour to do your Observations where the person being observed agrees to do something i.e. "The seafarer agreed to wear a hard hat in future".

Although we agree that the accommodation on some vessels can be very warm there are no plans to renew all the air conditioning units.

One Observation suggested that cotton gloves should be supplied for painting with. There certainly should be cotton gloves on board, but we would advise against using them for painting as the paint will get through the cotton and onto the skin which defeats the object of wearing gloves. We suggest that leather working gloves should be worn and, if it is too hot for gloves, barrier cream should be used.

Finally, we would take this opportunity of thanking all Observers for the generally high standard of Observing throughout the fleet. Please continue to make your Observations and submit them to your Co-ordinator.

Ronald O.C. Smith
Marine Superintendent