
SAFE

Introducing Britannia's BSafe initiative for seafarers

Tuesday 8 December 2020

Graham Wilson - Divisional Director, Loss Prevention

Jacob Damgaard - Loss Prevention Manager

Agenda

- Overview of campaign
- Examples of topics, content
- Overview of Case Studies
- Questions

Why BSafe?

Because Britannia recognises:

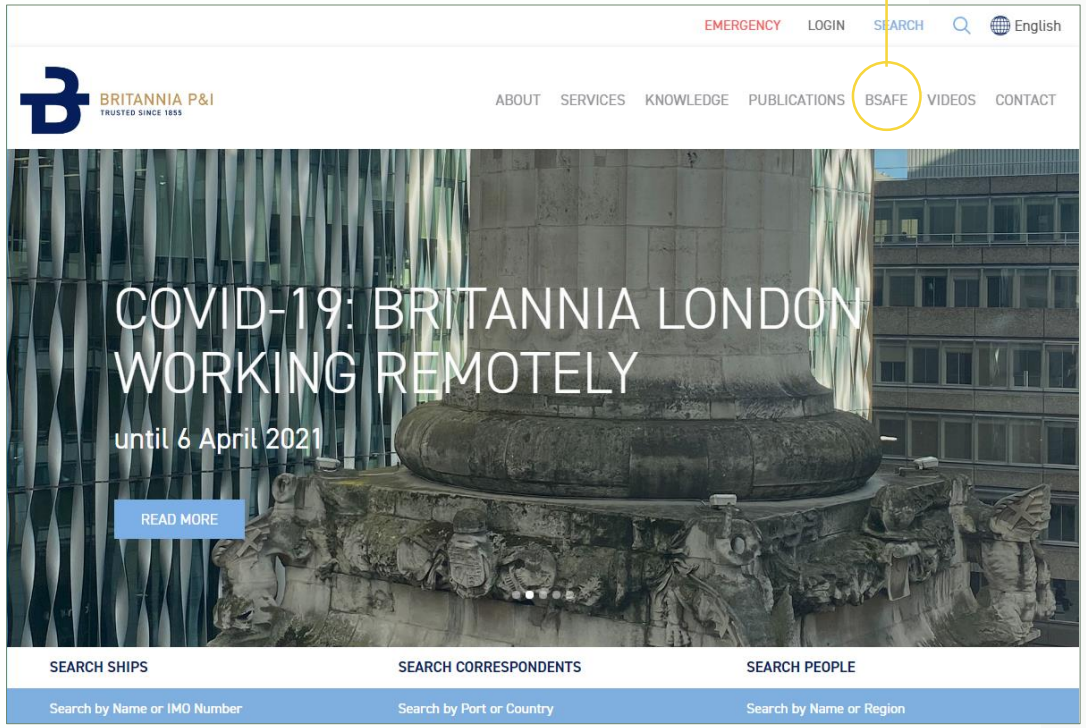
- That Seafarers are a key part of successful shipping
- That Seafarers are vital to safe and efficient operation of ships
- The pressure and demands under which seafarers work
- That the maritime world is fast changing and getting more complex
- That this increases the need for sharing information and best practice

What are the main themes of BSafe?

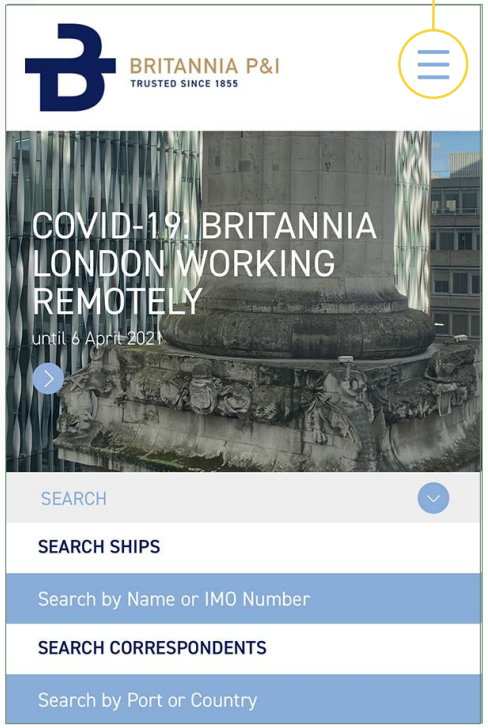
- Onboard Safety
- Onboard Health
- Onboard Security

Where to locate Bsafe?

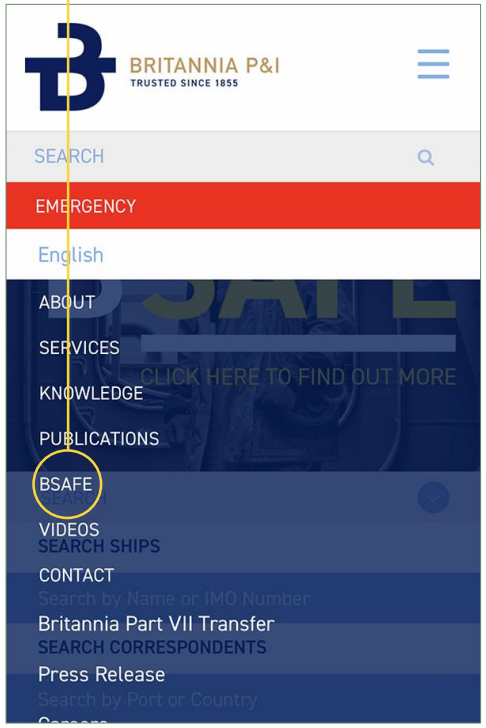
https://britanniapandi.com/bsafe/



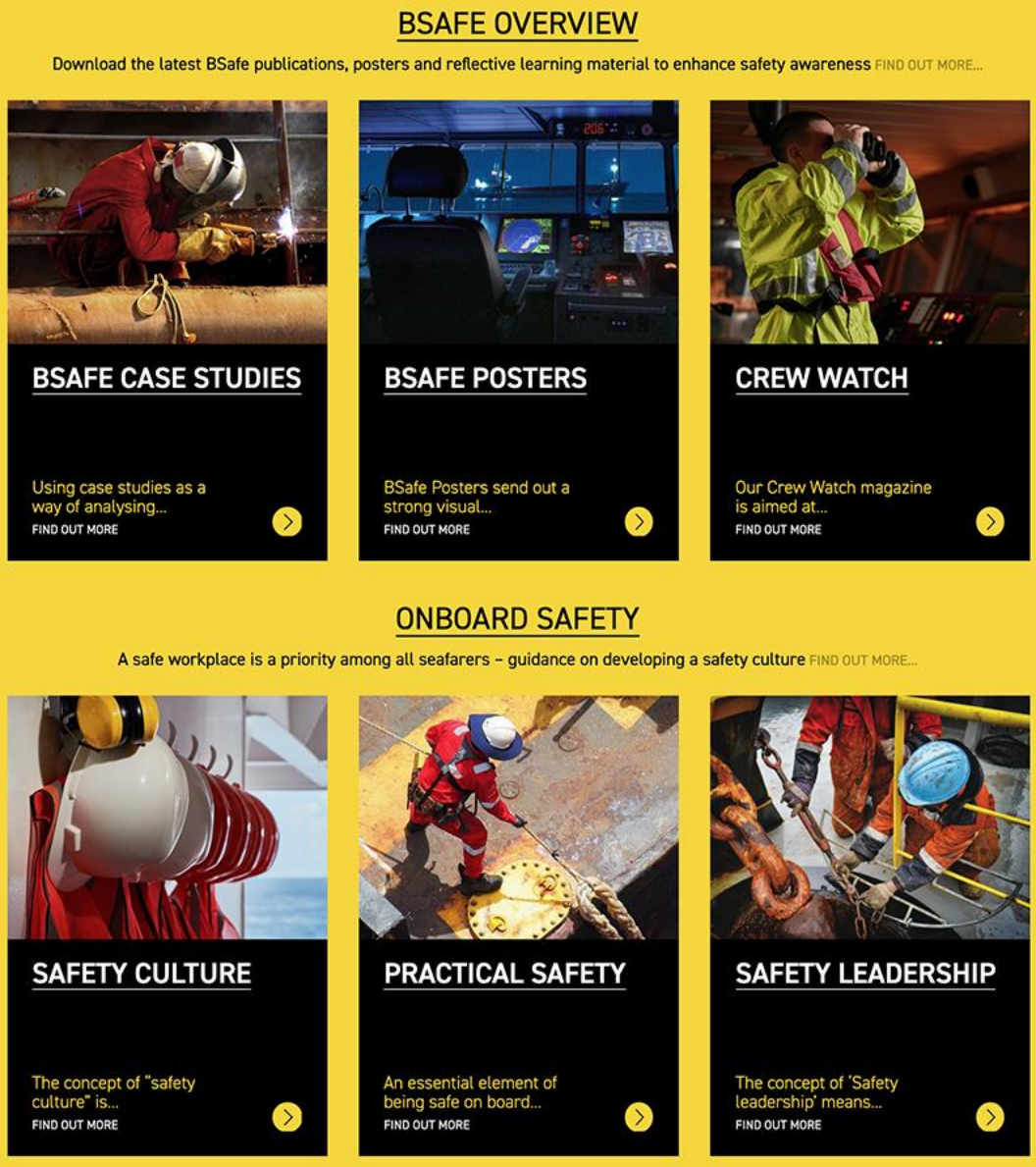
1



2

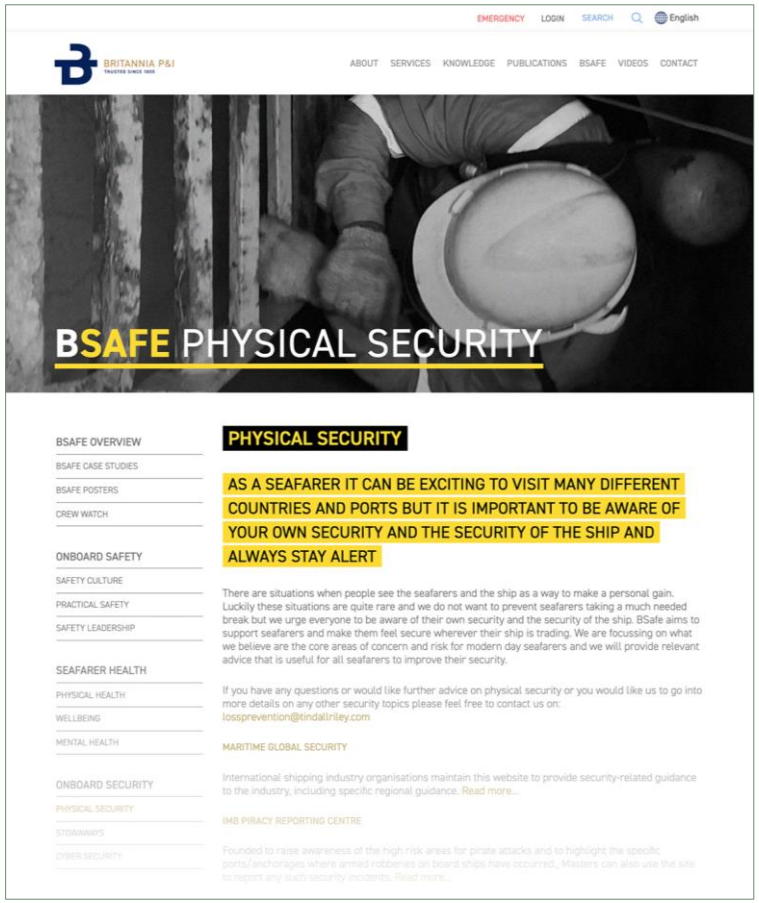


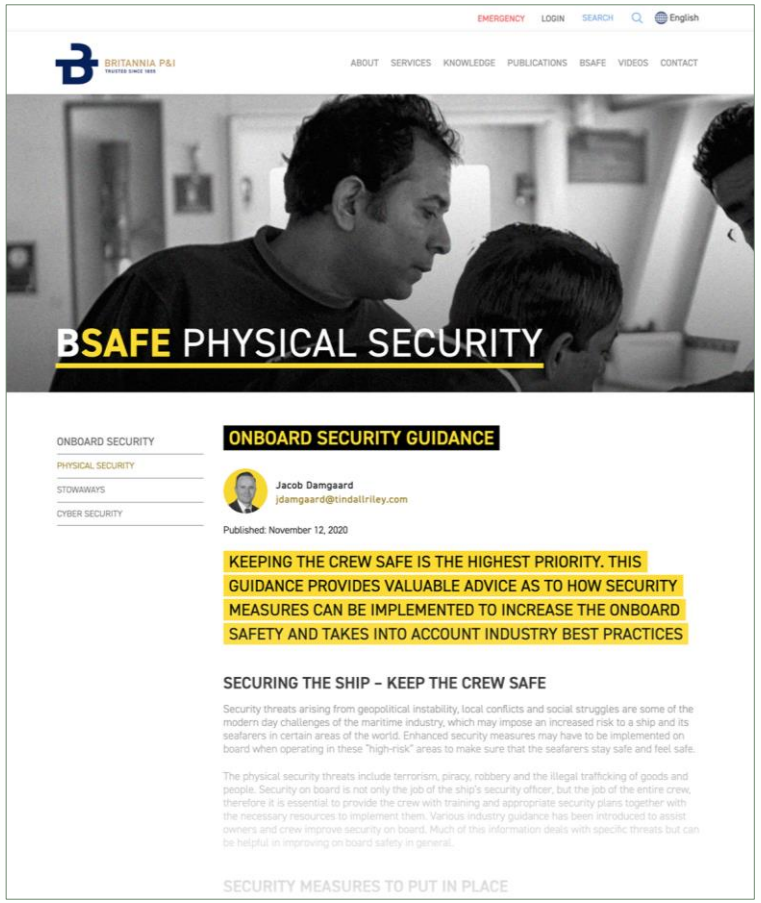
BSafe website structure



BSafe website structure

BSafe theme pages





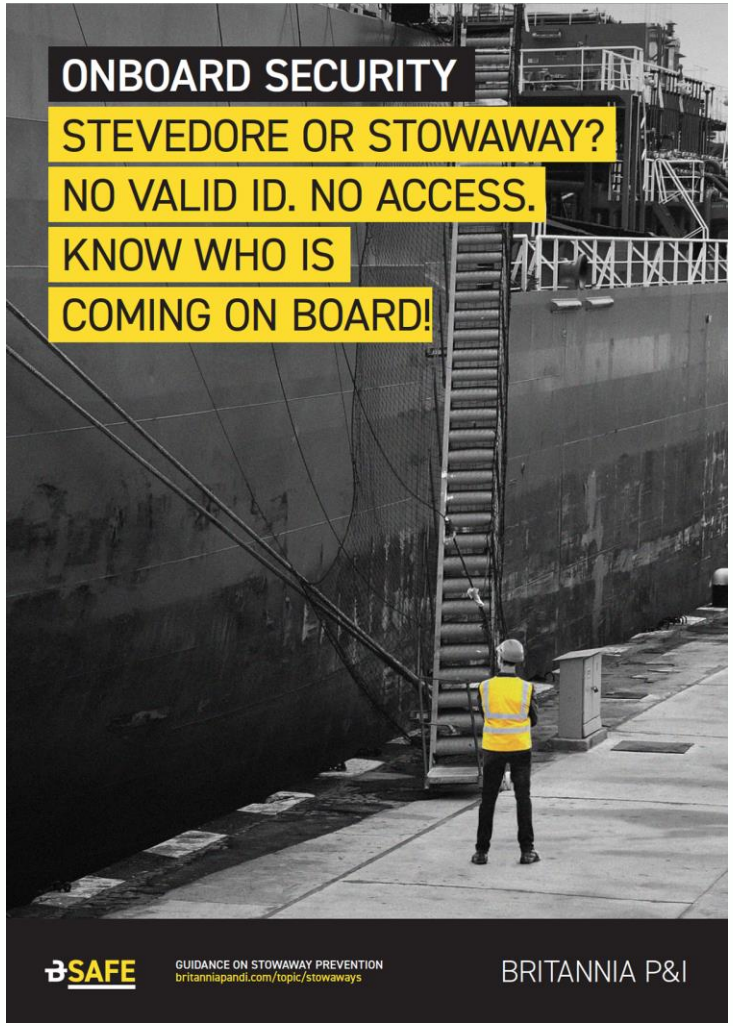
Provides guidance on:

- Security threat assessment
- Security measures
- Private security companies
- Training

What guidance is currently available?

- Drug Smuggling Prevention
- Good Safety Leadership
- Beating Stress and Depression
- BSafe Posters on various topics
- BSafe Case Studies

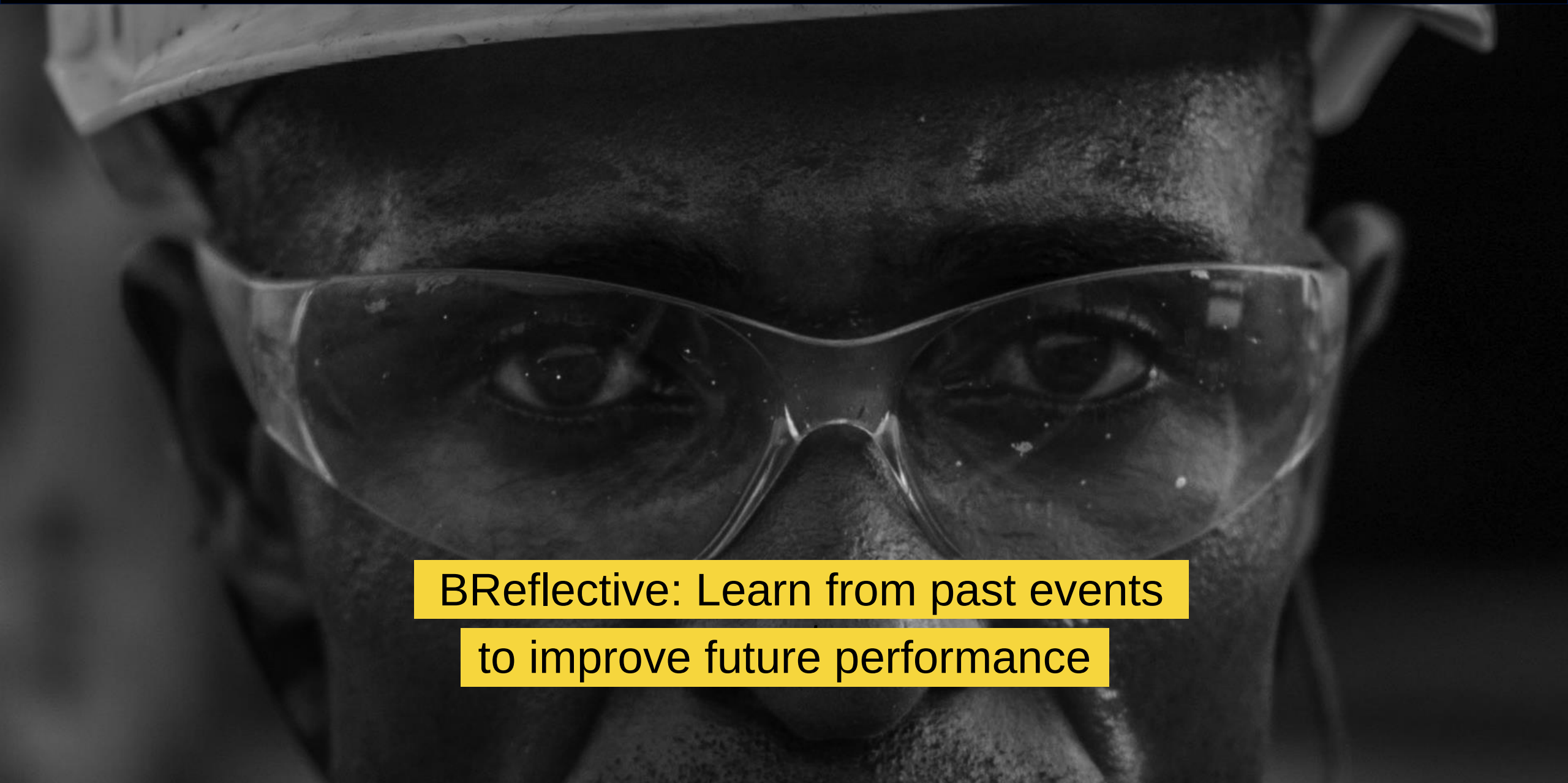
...and much more



What do we want to achieve with BSafe?

The main objectives of **B**Safe are to:

- **B**Informative: Support seafarers by sharing relevant Information with useful and practical content
- **B**Supportive: All BSafe material will address one of the three main themes to support seafarers achieving this
- **B**Effective: To engage with Members and their Seafarers for their feedback to ensure the campaign remains relevant as it evolves
- **B**Reflective: Encourage seafarers to reflect on various matters and whether these could be done differently



BReflective: Learn from past events to improve future performance

Case Study Summary

BSAFE INCIDENT CASE STUDY

No.1 | NOVEMBER 2020

DEATH OF THIRD ENGINEER DUE TO BURN INJURIES

THE THIRD ENGINEER (3/E) ON BOARD A CAPESIZE BULK CARRIER WAS SPLASHED BY HOT SLUDGE WHILE OPENING THE MANHOLE COVER OF A SETTLING TANK. ALTHOUGH HE WAS SUBSEQUENTLY EVACUATED TO A SHORESIDE HOSPITAL BY HELICOPTER, HE TRAGICALLY DIED 12 DAYS LATER.

FIGURE 1 THE LEVEL GAUGE OF NO.2 WASTE OIL SETTLING TANK. SOURCE: HBMCI

The vessel, built in 2010, was anchored off a Brazilian port waiting to enter and commence loading. While at the anchorage, the Second Engineer (2/E) transferred about 1.8 m3 of sludge from the "Bilge Separator Oil Tank" (BSO Tank) to No.2 "Waste Oil Settling Tank" (No.2 WOS Tank) using the sludge pump. After the transfer, it was observed that the level gauge of the No.2 WOS Tank (Figure 1) was not indicating the correct quantity. The transferred quantity was then confirmed by sounding the BSO Tank, and it was concluded the level gauge in No.2 WOS Tank had malfunctioned.

Reflective Learning Form

BSAFE INCIDENT CASE STUDY No.1

REFLECTIVE LEARNING FORM | NOVEMBER 2020

DEATH OF THIRD ENGINEER DUE TO BURN INJURIES

The questions below are intended to be used to help review the incident case study either individually or in small groups. If possible, a good way of further reflecting on the issues identified is to then present and discuss your findings with others.

Please use the information provided in the case study as well as your own experience and thoughts to reflect on the incident and think about how the issues might relate to your own situation.

WHAT DO YOU BELIEVE WAS THE IMMEDIATE CAUSE OF THE INCIDENT?

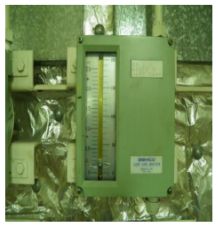
WHAT OTHER FACTORS DO YOU THINK CONTRIBUTED TO THE INCIDENT?

Case Study Presentation

Death of Third Engineer due to burn injuries BSAFE CASE STUDY

BACKGROUND

- During transfer of sludge to No. 2 "Waste Oil Settling Tank" (WOS) it was observed that the level gauge of the tank was malfunctioning
- The Chief Engineer (C/E) decided that the WOS should be cleaned the next day and the level indicator to be repaired
- The C/E prepared a "Job Hazard Analysis" (JHA) for the tank cleaning operation in accordance with the ship's Safety Management System Manual, and the 2/E, assisted by the 3/E was assigned to the job



The malfunctioning level gauge
Source: HBMCI

Britannia Commentary

BSAFE INCIDENT CASE STUDY No.1

BRITANNIA COMMENTARY | NOVEMBER 2020

OVERVIEW AS PART OF THE CASE STUDY MATERIAL, THE FOLLOWING COMMENTARY HAS BEEN PREPARED TO FURTHER CONSIDER SOME OF THE KEY ISSUES IN ORDER TO SUPPORT REFLECTIVE LEARNING.

The first three pages of this commentary discuss some of the contributory factors and lessons learned in more detail with particular reference to best practices. The final page graphically illustrates some of the barrier control measures that could have potentially mitigated against the risks associated with the hazards by making use of Britannia's interpretation of the Hierarchy of Barrier Controls triangle as a framework.

DEATH OF THIRD ENGINEER DUE TO BURN INJURIES

THIS FATALITY APPEARS TO BE A RESULT OF A CHAIN OF CONTRIBUTORY FACTORS, THE COMBINATION OF WHICH LED TO THE ACCIDENT. IF THE HAZARDS HAD BEEN CORRECTLY IDENTIFIED AND THE APPROPRIATE RISK CONTROLS HAD BEEN IN PLACE, THE TRAGIC DEATH OF THE THIRD ENGINEER (3/E) COULD HAVE BEEN PREVENTED.

It is worth mentioning that a lack of experience was not a factor: all of the Engineers involved were experienced marine professionals. This did not prevent them from making assumptions with regard to the safety of the work environment.

The case study and investigation identified a number of factors and lessons learned, as discussed below.

JOB HAZARD ANALYSIS AND HAZARD IDENTIFICATION

The Chief Engineer (C/E) had conducted and recorded a "Job Hazard Analysis" (JHA) for the inspection and maintenance of No.2 "Waste Oil Settling" (WOS) Tank the day before the accident. However, the investigation found that the JHA did not identify all of the potential hazards, including those relating to the quantity remaining in the tank and to the malfunctioning level gauge. Instead, the JHA relied on the professional knowledge and expertise of the involved personnel.

The hazard identification and risk assessment completed prior to the task should capture all hazards relevant to the job. If a generic risk assessment is insufficient to achieve this, a specific task-based risk assessment should be completed in line with the provisions of the Safety Management System.

The opening of the tank required the engine personnel to determine that the tank was empty before removing the manhole cover; however, as the level gauge was not working, this therefore had to be confirmed by other means.

Although it was expected that the two engineers would have applied their professional knowledge and expertise to verify that the tank was empty, a correct hazard identification should have:

- increased the awareness and prevented the two engineers from skipping critical steps of the procedure for safely opening the manhole cover.
- assisted in avoiding this tragic accident by increasing the focus and preventing a false perception that the tank had been drained. This ultimately resulted in steps in the established procedure for the safe opening of the manhole cover being skipped.

TOOLBOX TALK

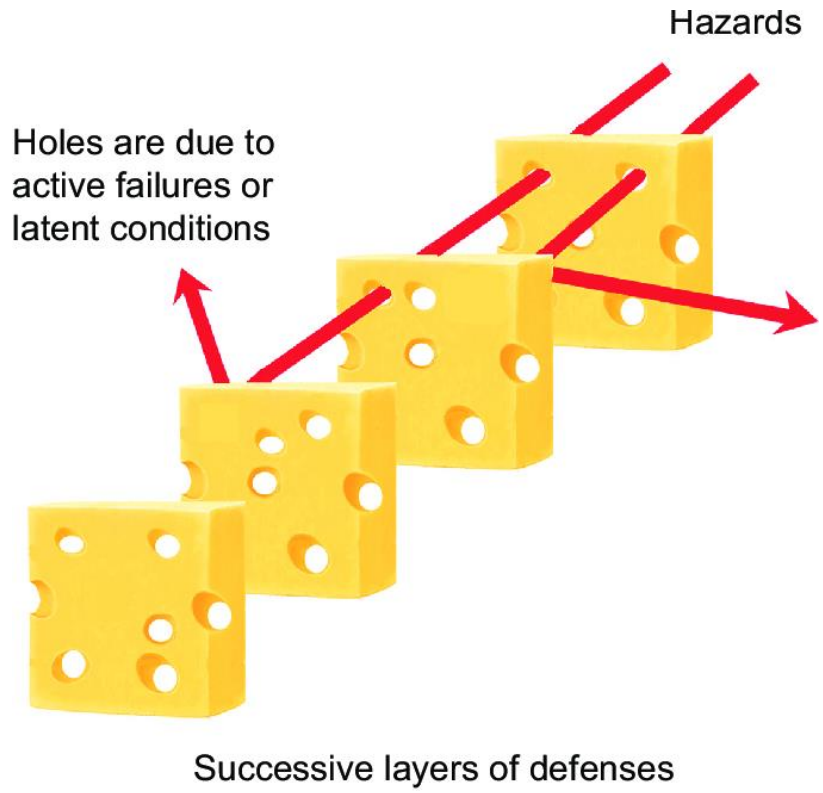
Opening the tank was the second job planned for the Engine crew on the day. The investigation did not determine whether progressing directly from one task to another may have contributed to the absence of a toolbox talk or a similar meeting prior to the accident.

A toolbox talk is a short meeting with the involved personnel immediately prior to commencing work. It provides an invaluable opportunity to talk through the instructions of the job at hand and the findings of the risk assessment and ensure that everyone is on the "same page". An effective toolbox talk prior to opening the manhole cover should have considered the findings of the JHA, and would have further helped to identify the hazards and necessary precautions to prevent the accident from occurring.

Enhancing risk awareness

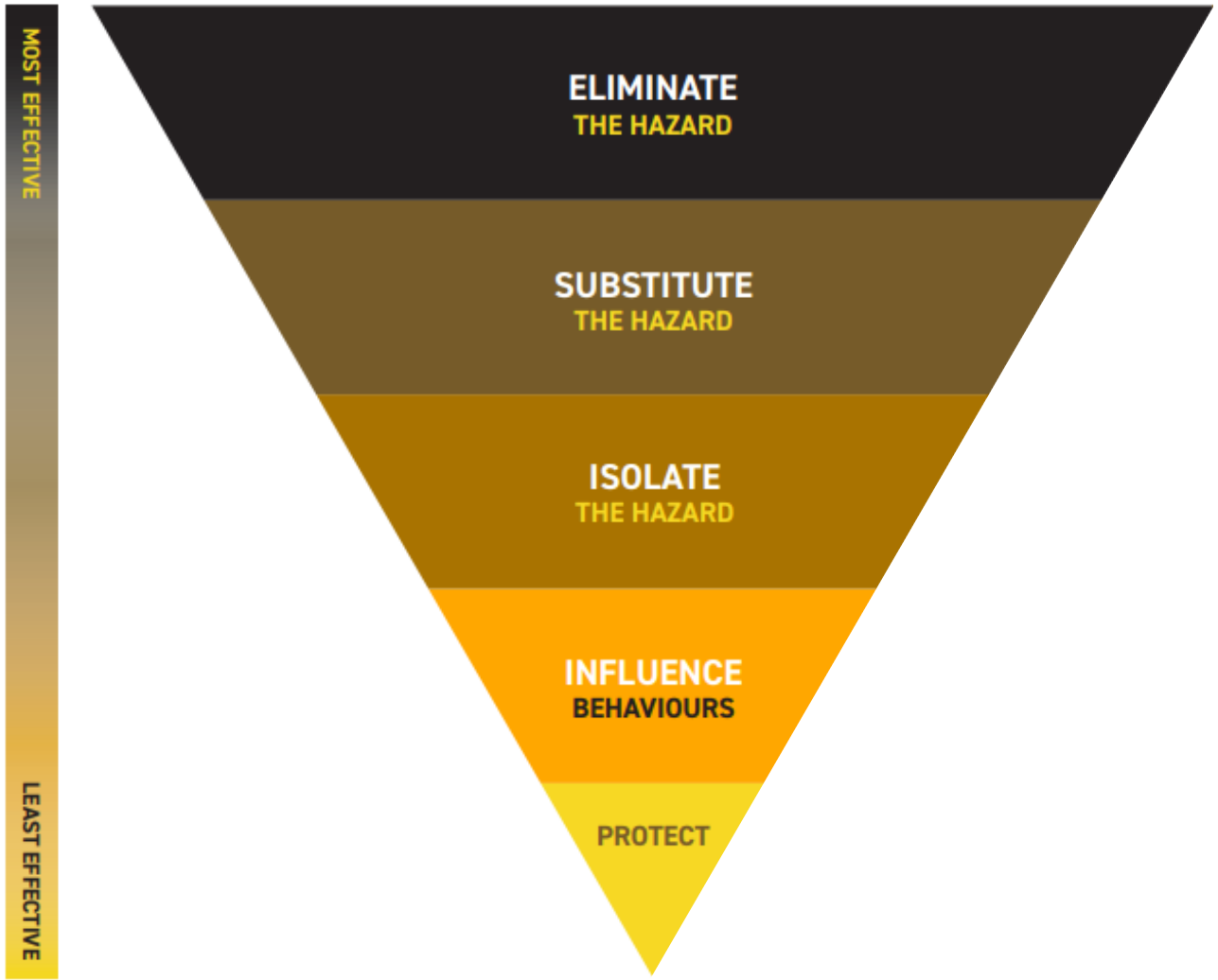
Approaches adopted/adapted by Britannia:

- Hierarchy of risk controls
- Barrier analysis
- Swiss Cheese Model



Source: McCrory et al (2014)

HIERARCHY OF BARRIER CONTROLS



Helping our Members' seafarers

to be healthy; to be secure; to BSafe


SAFE
For more information: lossprevention@tindallriley.com


QUESTIONS?

Website: www.britanniapandi.com/bsafe/

Twitter / Instagram: @britanniapandi

LinkedIn: www.linkedin.com/company/britannia-p-i-club