

RelyOn Nutec

Beyond the horizon

What hazards and safety measures may come in future



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The future of (STCW) safety training

Stefan Vis



The future of (STCW) safety training

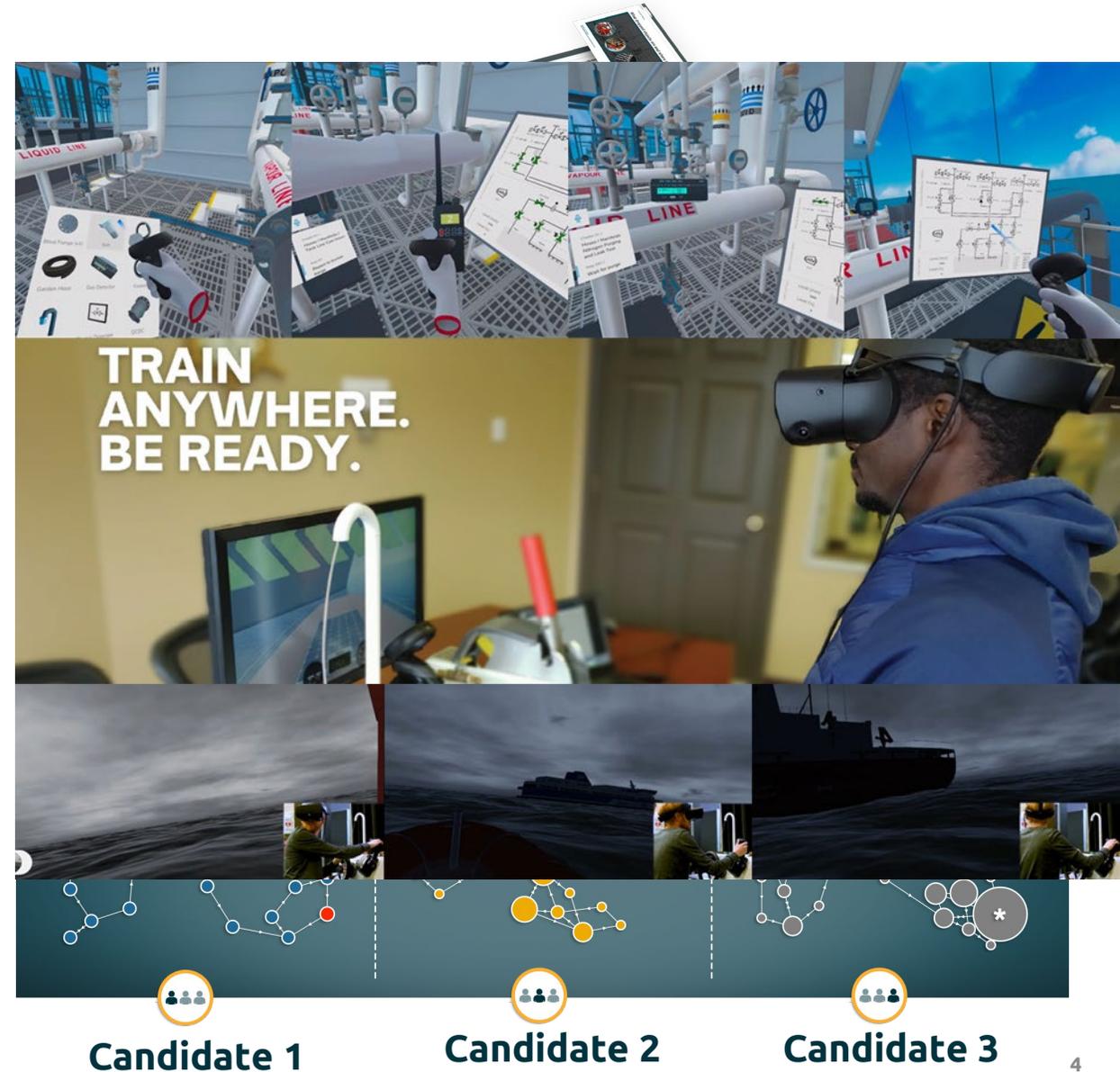
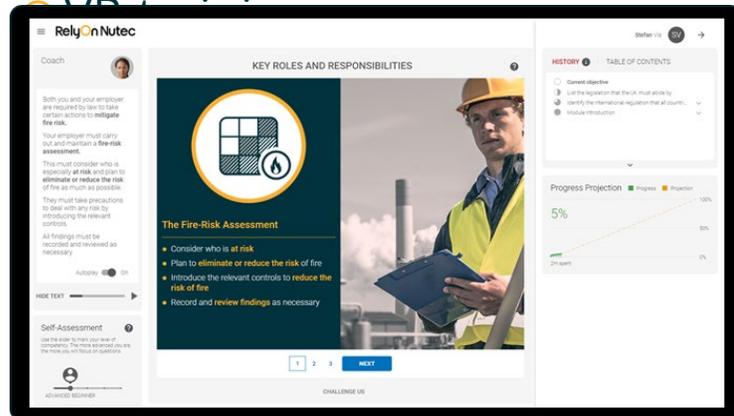
Closing the missing links in IMO Model Courses

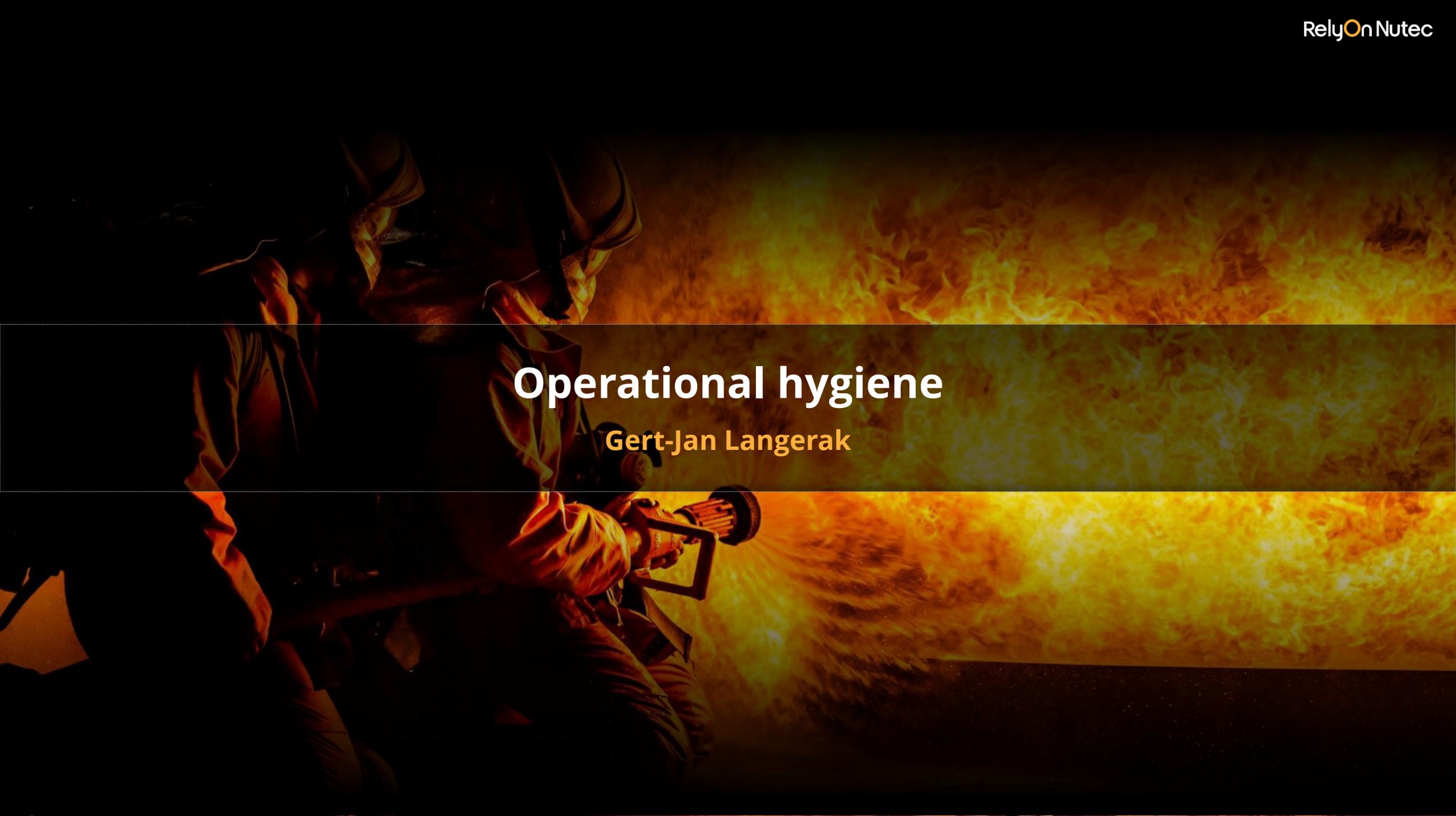
- Advanced Fire-Fighting (AFF)
 - Leadership (still based on small vessel and crew)
 - Maritime Management of Major Emergencies
 - Incident Commander
 - Team leader
 - RISK assessment & LMRA
 - Working in Enclosed Spaces: Entry and Rescue
- Fire Prevention and Fire-Fighting (FPFF)
 - Compartment Fire Behaviour (CFB)
 - HazMat response (work with chemical protecting clothing, decontamination, etc.)
 - Container fire fighting
- Alternative fuels (IGF Code)



The future of (STCW) safety training

- Remote Learning during COVID
- Blended training in combination with Live training
 - Improving knowledge by E-Learning in preparation to demonstrate skills at onshore training location or on board
 - To include Knowledge Assessments
 - To include Verification of Competences by external Subject Matter Experts
 - Change from E-Learning towards Adaptive Learning
 - Simulation





Operational hygiene

Gert-Jan Langerak

Operational hygiene

From Hero to Zero

Not long ago, the soot-covered firefighter was the epitome of the courageous hero, but this image is now considered outdated thanks to new knowledge.

Contamination threatens Health

The aim is to raise awareness of this important subject, provide information and, of course, develop well-considered concepts and solutions for the fire service teams on board ships.





But what exactly is contamination, what exactly is so dangerous about a bit of dirt and soot on protective clothing, and how can you protect yourself sufficiently both during and after deployments?

Contamination

When we talk about contamination, this basically includes any form of dirtying of objects and living beings alike by pollutants.

Pollutants

1

Asphyxiants, irritants, allergens

Carbon Monoxide, Carbon Dioxide, Hydrogen Chloride, Hydrogen Cyanide, Hydrogen Fluoride, Lithium oxide, Ammonia etc.

2

Carcinogens

Asbestos, Styrene, Polycyclic Aromatic Hydrocarbons (PAHs) and certain Heavy Metals

3

Can lead to long-term damage (cancer and cardiovascular disease)

Exposure to these gaseous and particulate agents has been linked to acute and chronic effects resulting in increased firefighter mortality and morbidity



Occupational and recreative free of harmful substances

1

Occupational and recreational activities free of harmful substances



Put on clean PPE

2

Put on clean PPE



Drive to the deployment site

3



Approach the fire via a clean route

4

Contamination by fire smoke and extinguishing agents



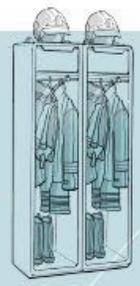
Contamination by fire smoke and extinguishing agents

Contamination RISK
Clean means healthy.

Provide clean PPE in the fire lockers

10

Provide clean PPE in the locker



Bystanders are indirectly contaminated

Have PPE professionally cleaned and checked

9

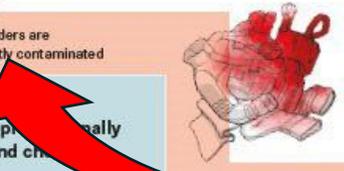
Have PPE professionally cleaned and checked



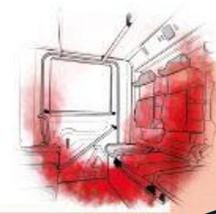
Shower thoroughly as soon as possible

8

Shower thoroughly as soon as possible



PPE carries toxins into the



Crew cab becomes permanently contaminated

Walk back through a clean route to the fire station

7

Wash the body first on site, put on clean clothing



Wearing contaminated PPE promotes ingestion of toxic substances

Change your way of thinking!

Remove contaminated clothing as soon as possible

5



Remove contaminated clothing as soon as possible

6

Onsite Wash/clean the body, put on clean clothing and pack PPE airtight



Pack contaminated PPE and devices in an airtight manner

Thank you for you attention.

Questions?

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