



SAFETY BY DESIGN OF MARITIME INFRASTRUCTURE PROJECTS

PROPOSED TECHNICAL WORKING GROUP

TERMS OF REFERENCE

1. Historical Background Definition of the problem

Human life is precious and it should always be the top priority to ensure that all people involved in the construction and operation of maritime infrastructure are able to work safely and come home to their loved ones after their shift.

Only by emphasising this from the early stages of the Asset Life Cycle ((master)planning, engineering, construction, operational and maintenance phase until the decommissioning phase) the risk of serious injury or worse can be minimized.

All parties involved – Owners, Clients, users, engineers, consultants, contractors and operators - are required to work together or be able to give input to ensure that a high level of safety will be achieved and a safe working environment is established.

Work on or at Port Areas, marine environments and waterways often involves large size constructions and complex operations, resulting in various high risk activities. For instance the building of a Jetty requires working at heights, above water, with heavy machinery, with hazardous materials. From a hierarchy of controls point of view, the best approach is to identify and eliminate the risk at the source, before applying mitigating measures such as collective protection, personal measures or Personal Protective Equipment.

Compliance with local rules and regulations on occupational health and safety is mandatory, but to raise the industry safety standards in our own field of work we need to lead by example and go beyond the compliance level.

A good safety culture, rigorous planning, identifying risk, safety leadership and much more is required to ensure that every person can come home safe again.

There are good standards of practice for the execution of works, this cannot be said for the engineering/design phase, therefore PIANC establish a guideline on Maritime Infrastructure Projects. In early stages of a project there is much to gain for the safety during execution and operation.

PIANC is setting the standard for the design construction, operation, maintenance and decommissioning of terminals, marine and maritime infrastructure. A good perspective on safety aspects can help in achieving the above stated goal.

2. Objectives

The objective for this new working group will be to provide a guidance document how a Goal Zero ambition on occupational health and safety could be achieved. It should include a clear process from safety in planning, design and execution (reference to existing documents), roles and responsibilities, hardware (tools) and skills displayed through best practices in the major fields of Maritime infrastructure project delivery. The document should give clear guidance to different stakeholders within the projects to Raise safety performance within the design phase of Maritime Infrastructure Projects. For the construction phase there are good practical standards readily available, which should be referenced.

3. Reference documents to be reviewed

Most likely in some of the reports PIANC has published safety is addressed but most likely not in the way that this document should achieve.

Some good sources on Health and Safety for constructions are:

- The Health and Safety Executive (HSE) Britain's national regulator for workplace health and safety
- Many of our members have excellent health and safety approaches and standards that can raise the standards of our industry
- OCIMF (including members)
- CEDA/ Woda working group Safety in Dredging
- Iso 45001
- IMCA
- IOGP

It is up to the working group to come up with a good list of reference documents which help in achieving the goal and not reproducing good resources which are readily available. For the execution phase references should be made to good industry standards.

4. Scope of work

A guideline covering best current practice and common risk and opportunity management strategies for all stages and construction types in Marine infrastructure projects. It should address at least the following topics:

- Safety philosophy and concepts
- Safety regulation frameworks
- Safety management systems from project initiation to completion.
- Safety best management practices in design (main Topic)
- Safety in contract requirements
- Safety hazard identification and mitigation best practices
- Safety communication, lessons-learned
- Safety leadership, culture, and perception

5. Intended product

The intent of this working group is not to become the official guidance or worldwide norms for safety or to be the official industry standard on safety within our field of work. The Wg however should provide a report which contains guidelines which can lead to adaption of high safety standards, norms, management practices, suitable tools and best practices to enhance and develop broader safety awareness and standards.

The document should nor impose or conflict with rules or regulations on safety. It should share best practices, give guidance and facilitate collaboration between stakeholders within the field of Terminal and Maritime infrastructure development.

The ultimate goal should be a document which is welcoming for any organisation to use and boost and develop broader safety awareness and boost the safety within the industry.

6. Working Group membership

Working group membership should be a mix of owners, consultants, contractors and operators. But also a mix of safety experts/managers, engineers (structural, mechanical, electrical), construction managers and Operational staff.

It would be desirable to include sister organisations such as IAPH, OCIMF, WODA

Desirable disciplines and experience amongst WG membership; need for representatives from third-party organisations if appropriate; any special considerations (e.g. for wider consultation)

7. Target audience

The potential users of this document include asset owners, Port Authorities, governments, clients, terminals, operators, engineers, contractors, students, maintenance engineers and alike.

It should help in boosting and developing a broader safety awareness by all parties involved within Marine infrastructure projects and give guidance on how to get to a goal Zero ambition on Human safety.

8. Relevance

8.1. Relevance to countries in transition, etc.

The guideline will aid countries in Transition (and also all other countries) in being able to raise safety awareness and human safety, taking advantage of the collective knowledge and best practices from all over the world.

8.2. Climate Change and Adaptation

This document gives no additional information on climate change and adaptation but could help in reducing potential environmental damages on a local scale.

8.3. Working with Nature

The working with nature is not directly applicable to the proposed outcome of this working group.

8.4. UN Sustainable Development Goals

This proposed WG report will primarily address specific UN Sustainable development goals as follows:

- Goal 3: good health and Well-Being
- Goal 4: quality education
- Goal 9: Industry innovation and infrastructure

9. References

No further references are available at this moment.