Managing Performance, Not Paperwork – the Route to A Sustainable Offshore Wind Safety Culture

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Summary

The wind industry's ongoing expansion from land to sea poses unique challenges for managing health and safety (H&S) aspects at work. Building a sustainable safety culture within an organisation will only work if a sound balance is maintained between people, their behaviours and practices on one side and the implemented equipment, systems and processes on the other side.

A thorough analysis of the current safety performance is required for developing tailored measures for advancing the safety culture. A key to driving safety is to acknowledge what goes well and to build on identified strengths. Safety culture assessments allow for a determination of the strength of existing systems as well as mindset and values, and for defining such tailored actions.

A common pitfall in establishing increasingly elaborate health and safety systems, procedures and processes is the focus on formalised aspects which leaves people, their personal experiences and mindsets aside. While concise and understandable standards are needed for high-risk activities, the unique safety challenges of the offshore wind sector are best approached with a move from established, overly "paper-based" management settings towards advanced approaches which understand and address personal & value-based aspects as well as systems and technologies. Tailored, sustainable safety strategies based on an analysis and acknowledgement of the current status have proven effective in engaging leaders and all staff in making safe behaviours an integral part of everything they do. Such strategies will include an initial "safety culture diagnostics" phase followed by leadership engagement sessions, safety culture multiplier trainings and tailored activities.

The Safety Culture Diamond Model

As the wind industry has moved from land to sea, unique and unprecedented challenges have arisen in terms of managing health and safety (H&S) aspects at work. As in other industry sectors, the approach has shifted from a merely compliance-focused approach towards striving for an advanced safety culture in which safety is an integral part of everyday business and in which players have engrained safety as a natural part of what they do. However, there are challenges in achieving this objective which are unique to the offshore wind industry and which require a new perspective on safety.

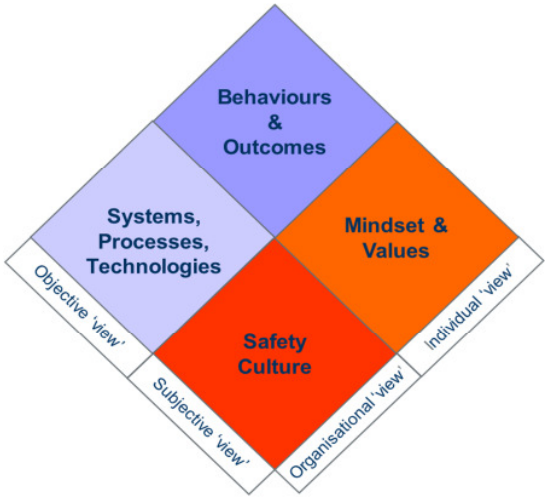

Fig. 1 – Diamond Model

The successful transformation towards an advanced, sustainable safety culture within an organisation requires a delicate balance of people, their behaviours and practices on one side and the physical and organisational infrastructure (equipment, systems and processes) on the other side.

As shown in Fig. 1, the physical and organisational infrastructure can be seen as the “blue” side of occupational safety, whereas personal values and beliefs constitute the “red” side [1]. An imbalance towards either of the two sides results in weaknesses in the overall safety culture – the diamond “leans” towards one of the two sides.

In more practical terms, organisations with an imbalance towards the blue side are characterized by a high reliance on technical safety and management systems. In extreme cases, they become bureaucratic and burdensome. If mindsets and values are not in balance with the technical and systems side, employees may choose to disobey safety rules or even disable technical systems.

An imbalance towards the “red” side, on the other hand, may result in strong messages on the importance of safety voiced by charismatic leaders, while at the same time there is a lack of consistency in “the way to do things”. In this case, views on how to achieve a safe environment may strongly differ between different persons, and in extreme cases each person is solely acting on personal preferences rather than a shared understanding.

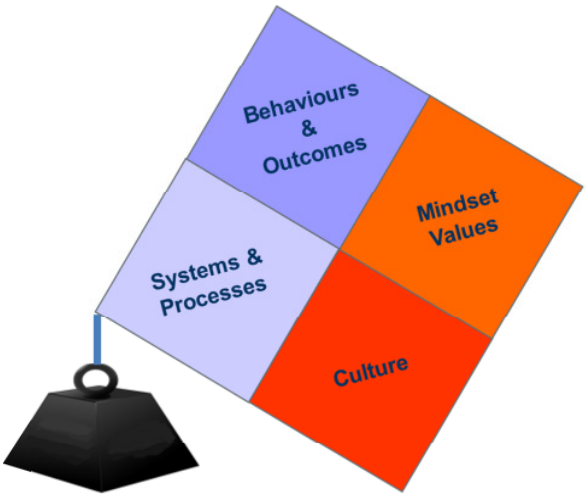

Fig. 2 – Overemphasizing the „Blue“

A common pitfall in the development of increasingly elaborate health and safety systems, procedures and processes is the implementation of formalised aspects which leaves people, their mindsets and values aside, causing the diamond to lean to the “blue” side (Fig. 2). While management systems help to improve clarity and consistency of expectations, one question remains – do they really result in shift changes towards the journey to a sustainable safety culture in which at-risk behaviours are eliminated and zero accidents are a realistic scenario [2]? Or, to go even further, to what degree can they be the basis for a safety culture in which individuals show the ability and willingness to integrate safety thinking into a “performance variability” [3] essential for complex working environments such as the offshore wind sector?

The maturity of the safety culture of an organisation can be analysed through safety culture assessments. Classical approaches used in this context are based on maturity levels, but without clear differentiation between the systems and the personal side. As an example, an assessment of an organisation’s approach towards risk assessments may tend to focus on the content of the formal procedure and on the question of how the procedure has been formally communicated, rather than assessing whether employees have understood the process and actively perform (systematic and ad-hoc) risk assessments as part of their everyday activities in the field.

An advanced safety culture assessment will identify and visualize the maturity levels of both the blue and the red side for each of the individual aspects of the organisation’s safety culture. The results of such assessments then form the basis for implementing tailored improvements which can be targeted at either of (or both) sides depending on the outcome (Fig. 3).

The primary objective of safety culture assessments performed in this manner is to obtain an understanding of the development status of the safety culture and the balance between the blue and the red side. However, experience has shown that the analytic process of performing safety culture assessments – including a variety of activities focusing at the front line or “sharp end” of an organisation, but also including all management levels – is already the first step in altering the safety culture within the organisation by initiating a process of self-recognition and change.

Fig. 3 - Safety Culture Maturity Levels – "Blue" and "Red" Side [2]

Implications for the Route to a Sustainable Offshore Wind Safety Culture

In terms of the physical and organisational infrastructure, the offshore wind sector is still a pioneer technology characterized by operation in harsh environments and limitations in comprehensive regulatory health & safety frameworks. While existing offshore oil & gas standards can often be applied, they typically have to be altered or adapted.

The limitations in existing regulatory frameworks and in published industry standards include aspects such as response to inclement weather, emergency response, vessel transfer, specific work methods and equipment etc. They have to be compensated by strong internal health & safety management frameworks including internal expectations but also adequate H&S skills and resources.

In terms of people, behaviors and practices, effective leadership (by supervisors and managers) and ownership (by all employees) are key factors for managing offshore wind projects safely. The offshore specifics, with project teams often operating remotely away from the back office and with significant contractor involvement poses specific leadership challenges to fostering a strong safety culture.

Only a thorough analysis of the existing safety performance allows for the development of tailored measures for advancing the safety culture. A key to driving safety is to acknowledge what goes well and to build on identified strengths.

The unique safety challenges of the offshore wind sector are best approached with a move from established, "paper-based" management settings towards advanced approaches which understand and address personal & value-based aspects as well as systems and technologies. Tailored, sustainable safety strategies based on an analysis and acknowledgement of the current status have proven effective in engaging leaders and all staff in making safe behaviors an integral part of everything they do. Such strategies will include an initial "safety culture diagnostics" phase followed by leadership engagement sessions, safety culture multiplier trainings and tailored activities. Reviewing rules and systems to ensure they are clear, concise and understandable can be an initial starting point supporting the safety culture advancement. In parallel, the engagement and coaching of leaders of all levels as well as front-line employees, often going far beyond pure health & safety aspects, have proven to be a key driver for achieving step changes in the safety culture of successful organisations.

References

[1] Fink, P., Besnainou, E. 2010. Safety Culture and Safety Management Systems: Why Management Systems Alone Can't Guarantee Model Employee Behavior. EHS Journal July 17th, 2010. http://ehsjournal.org/http:/ehsjournal.org/peter-fink-and-edna-besnainou/safety-culture-and-safety-management-system-behavior-safety-culture-diamon/2010/

[2] Nienhaus, A., Afrenie, D., Sandu, G. 2016. ”Safer Together” – Driving a Safety Culture Change in a Challenging Environment. Conference Paper, SPE International Conference and Exhibition on Health, Safety, Security, Environment, and Social Responsibility, 11-13 April 2016, Stavanger, Norway.

[3] Hollnagel, E. 2014. Safety-I and Safety-II. The Past and Future of Safety Management. Farnham, UK: Ashgate.