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Our Safety Culture: Our Behaviour is the Key

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Introduction

The occupational safety literature increasingly focuses on the organizational nature of health and safety performance and the concept of safety culture is widely discussed under this banner. It is now commonly accepted that a strong safety culture is fundamental to an organisation's ability to achieve excellent safety performance. Moreover, research concurs that strong safety leadership, effective supervision and workforce involvement play a critical part in fostering safety culture (e.g. HSE, 1999; HSE 2001; Flin, Mearns, O'Connor & Bryden, 2000; Zohar, 2002).

Various approaches have been employed to improve safety culture. A typical approach is to conduct a safety culture diagnosis at the site or organisation level and develop and implement improvement plans based on the results. In such approaches, the improvement plan usually targets a need for change in behaviours and practices at different levels of the organisation. Another common method for enhancing safety culture is interventions that target one occupational level—for example, implementing an observation and feedback program at the workforce level, or a development program at the leadership level.

Although these approaches are appropriate in some circumstances, they do not describe the behaviours required at different occupational levels to foster a strong safety culture, nor specify how these behaviours relate to each other and are mutually supportive across different levels of the organisation. Furthermore, such methods do not readily lend themselves to integration into the organisation's safety management and human resource systems. This need is particularly important in light of recent safety research demonstrating that organizational characteristics influence safety climate (Novatsis, 2004; Wallace, Popp & Mondore, 2006), a concept commonly recognised as providing an indicator of the underlying safety culture of a site or organization. In addition, effective human resource systems have been shown to relate positively to safety climate and safety outcomes (Zacharatos, Barling, & Iverson, 2005), suggesting that safety culture improvement initiatives should be linked to broader organisational systems designed to enhance the performance of people. Such an approach provides reinforcement to foster sustainable change.

Woodside embraced these lessons and is working toward a holistic and integrated behavioural approach to improve its safety culture, a need apparent through numerous safety performance indicators. This work has involved development of a competency framework for safety behaviour, providing a common language and understanding of safety culture, whilst enabling flexible application across the business. This paper describes the framework, its development, and how it has been introduced at Woodside, with particular focus on integration into the health and safety management and human resource systems.

HS BEHAVIOURAL COMPETENCY FRAMEWORK DEVELOPMENT

The original version of the HS competency framework was pioneered by a UK offshore engineering contractor and developed from three main data sources:

- Existing academic research, which identified leadership behaviours that support workplace safety outcomes (HSE, 2003)

- Existing industry research conducted by the UK offshore sector's cross-industry Step-Change in Safety group, who developed a set of safety behaviours following review of 11 offshore fatalities (Step-Change in Safety, 2004)
- In-company research, to identify specific positive and negative health and safety behaviours which had particular relevance to the organisation and its operations. This research applied two job analysis methods: critical incident interviewing (Flanagan, 1954) and the repertory grid technique (Kelly, 1955). The data generated facilitated identification of positive and negative health and safety behaviours across three occupational groups—Managers, Supervisors and Everyone.

Rather than develop a competency model from first principles, Woodside conducted its own in-house research, undertaking a validation exercise against the original HS competency model. Specifically, the following inputs were used to validate and adapt the model:

- HS perception survey findings
- Serious incident review outcomes
- Time-Out for Safety feedback
- In-depth interviews with senior managers, engineers and HS professionals
- Consultation with senior corporate and operations HS team
- High-reliability organization literature (e.g. Weick, Sutcliffe & Obstfeld, 1999)
- Organizational values

These inputs revealed the same four behavioural themes across three occupational groups that were defined in the original competency model. However, some of the behaviours and language used in the model were modified to accommodate Woodside specific context and issues.

HS BEHAVIOURAL COMPETENCY FRAMEWORK – “OUR SAFETY CULTURE”

Figure 1 provides an overview of the “Our Safety Culture” framework. Four behavioural themes—Standards, Communication, Risk Management and Involvement—are linked via three occupational groups—Managers, Supervisors and Everyone. By reading across the themes, the interdependency of the sets of behaviours across the three occupational groups is apparent. The behaviours of each group can be viewed as a defense, where if any of these three groups do not demonstrate the correct behaviours, attaining excellent safety outcomes is compromised. In other words, a strong and sustainable safety culture is a result of consistent and mutually reinforcing behaviours at all levels of the organization.

Figure 1. Overview of “Our Safety Culture”

Theme	Everyone	Supervisors	Managers
Standards	Follow rules	Ensure compliance	Set high standards
Communication	Speak up	Encourage the team	Communicate openly
Risk Management	Be mindful	Promote risk awareness	Confront risk
Involvement	Get involved	Involve the team	Involve the workforce

Each high level behavioural descriptor is underpinned by a set of specific positive and negative behavioural indicators. Figure 2 provides an example of the behaviours for Managers: Sets High Standards.

Figure 2. Standards, Manager: Set High Standards



INTRODUCTION OF OUR SAFETY CULTURE

Woodside has adopted a two tiered approach for introducing its HS behavioural competency framework. The first of these methods is organization-wide integration—that is, activities focused on embedding the competency framework into existing human resource and safety management systems. The second approach is focused interventions in specific areas of the business. The specific activities undertaken to date within each of these approaches are elaborated below.

Organisation-wide integration

Standards

Woodside's Golden Safety Rules—rules pertaining to high risk activities and developed based on lessons learned from incidents at Woodside and other oil and gas companies—are supported by a series of corresponding technical standards. These standards are designed to provide employees with a comprehensive understanding of the Golden Safety Rules. Woodside has incorporated relevant behaviours within the competency framework into the Standards.

Training and Development

The head office building induction course and numerous site-specific induction courses have been updated to include the behaviours in the framework. This ensures that employees are introduced to the HS behavioural standards expected of them from the point of joining the business.

The competency framework has also been used as the base for designing Woodside's core HS training courses. Namely, the HS Foundations training—which imparts fundamental HS knowledge required of all Woodside employees—was designed based on what people need to know around Standards, Communication, Risk Management, and Involvement. Moreover, the HS leadership for Leaders and HS leadership for Supervisors training courses include a comprehensive session on the framework and self assessment against the respective behaviours that these occupational groups need to demonstrate to foster a strong safety culture.

Similarly, the training supplementary to the core modules as well as role-specific training has been developed to integrate the competency framework. For example, Incident investigation training incorporates how the framework can be applied during investigations to identify the positive behaviours that were absent and the negative behaviours that were present at management, supervisory and operator levels. Indeed, this approach has been adopted to examine behavioural failings in several high potential incidents and linked problematic behaviours across the three levels have been uncovered. Furthermore, Safety Conversations training has been designed to encompass the framework, specifically drawing on the behaviours to prompt appropriate questions and discussion.

Communications

Several of the communication channels that Woodside employs for delivering HS information to the business have been used to raise awareness of the expected behaviours. Namely, standard information packs developed within the HS function are delivered by leaders in each business unit to facilitate learning from critical incidents. These communication packs have included the positive behaviours that were absent and likely contributed to the incident being discussed. Moreover, the Woodside magazine has been used to recognize and reinforce the expected behaviours through inclusion of articles that describe situations where individuals were observed demonstrating positive safety behaviours.

Existing senior leadership business unit meetings have also been used to introduce the competency framework. The purpose of presenting the framework at these forums is to elicit feedback on the model from senior leaders in the business, discuss potential applications of the framework in different areas of the business, and identify areas with a critical need and readiness for focused intervention.

Existing functional team meetings have also been used to educate other critical stakeholder groups about the framework, namely the HS Function and Human Resource teams. Communication to HS functional team members has allowed them to consider how the framework applies to their work and clients in their sphere of influence. For instance, team members who are enhancing the corporate incident reporting database can incorporate specific data fields for behaviours. In addition, given that many HR practices can be used to support the framework—for instance, development planning tools—communication with HR team members has identified mutually beneficial opportunities. For example, opportunities to refresh use of the performance management system via workshops on Our Safety Culture during focused interventions have been identified.

In addition to employing these existing communication avenues to educate the business, a structured communication plan is in place to formally launch Our Safety Culture. The primary objective of this communication strategy is to raise general awareness of the expected behaviours across the business. Various communication methods are being employed, such as poster campaigns, portable display stands, pocket cards, and lunchtime lectures, with a focus on one behavioural theme each quarter in 2008.

Organisational Climate Survey

The Woodside organizational climate survey has been designed to comprise numerous health and safety items based on the HS competency framework. Specifically, survey items representative of the four behavioural themes as they relate to the three occupational groups were included. Results from the initial survey have revealed organizational and business unit strengths and development areas as well as providing insight into the safety culture development in specific areas of the business. These survey items potentially provide a baseline measure of the perceived safety culture and could be a suitable metric to track continuous improvement in safety culture over time.

Mapping practices to the framework

The aforementioned practices constituting organisation-wide integration—that is, the core HS training and tools that have been developed or applied to promote behaviours in the framework, and which are available company-wide—are depicted in Figure 3. Similar mapping exercises have been conducted in specific areas of the business. Essentially, different business units or facilities have mapped their current behavioural programs and practices against the framework, enabling identification of behaviours expected by the different occupational groups that were not being reinforced adequately through existing activities. An example of one such analysis is illustrated in Figure 3. This type of mapping exercise has also helped educate the workforce about the distinction between a behavioural framework and behavioural programs or tools.

Figure 3. Mapping practices and tools to the competency framework

Theme	Everyone	Supervisors	Managers
Standards	Follow Rules	Ensure Compliance	Set High Standards
	<ul style="list-style-type: none"> Standards that support GSRs 	<ul style="list-style-type: none"> Workplace inspections 	<ul style="list-style-type: none"> Safety Conversations training Management site visits
Communication	Speak Up	Encourage the Team	Communicate Openly
	<ul style="list-style-type: none"> Time out for safety Tool box talks HS committee meetings Observation and feedback program 	<ul style="list-style-type: none"> Tool box talks Observation and feedback program Quarterly staff briefings 	<ul style="list-style-type: none"> Safety Conversations training Management site visits Daily operations meeting Quarterly staff briefings
Risk Management	Be Mindful	Promote Risk Awareness	Confront Risk
	<ul style="list-style-type: none"> Step back 5x5 JHA Minor hazard reporting 	<ul style="list-style-type: none"> Incident Investigation training and toolkit Minor hazard reporting 	<ul style="list-style-type: none"> Incident Investigation training and toolkit Weekly incident review meeting
Involvement	Get Involved	Involve the Team	Involve the Workforce
	<ul style="list-style-type: none"> Observation and feedback program Incident investigation teams 	<ul style="list-style-type: none"> Observation and feedback program Incident investigation teams 	<ul style="list-style-type: none"> Management site visits
All themes	<ul style="list-style-type: none"> HS Foundations Head office building induction Site specific inductions Performance and development plans 	<ul style="list-style-type: none"> HS leadership for Supervisors training Personal Safety Plan 	<ul style="list-style-type: none"> HS leadership for Leaders training Personal Safety Plan

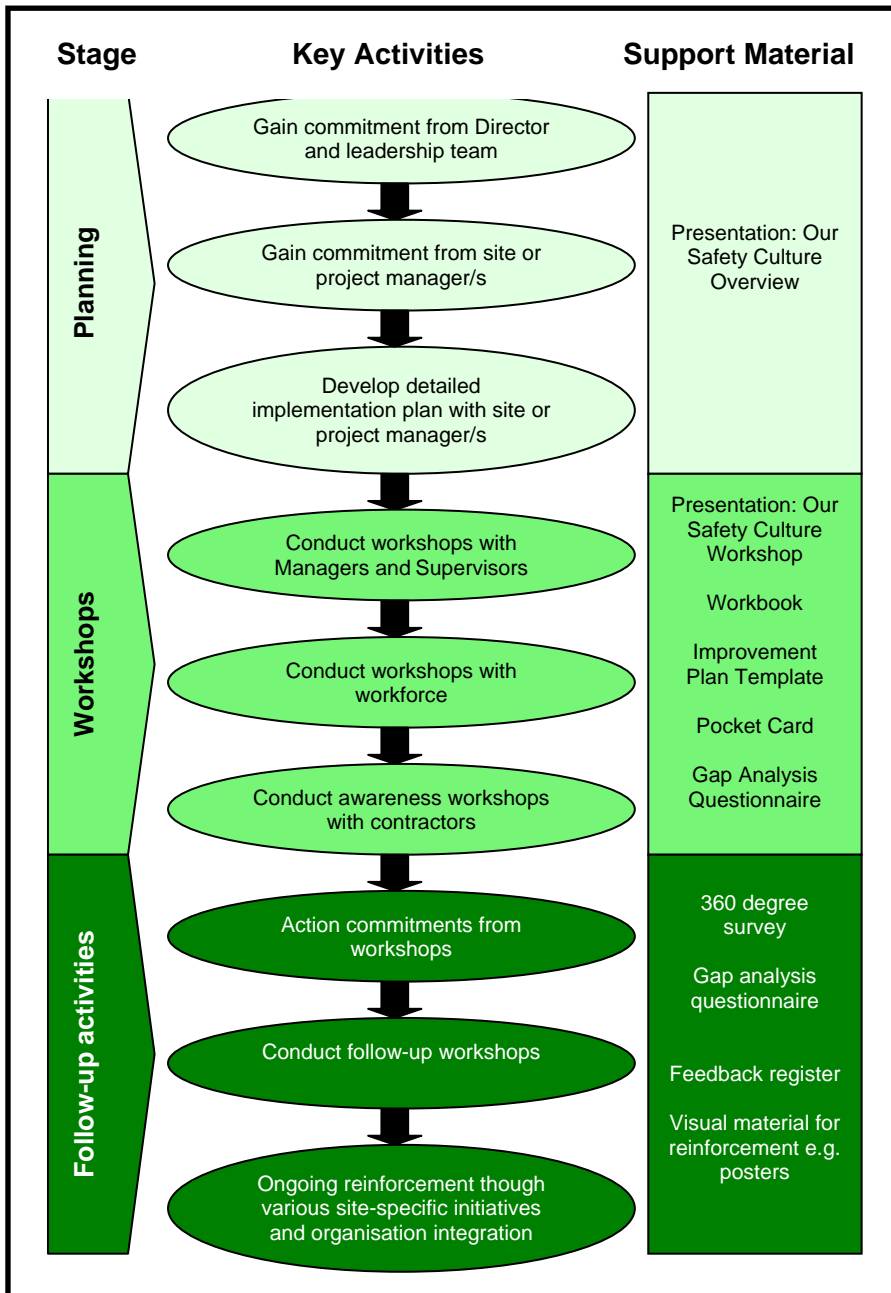
Key.

- Core HS training and tools that promote Our Safety Culture
- Example of area-specific training and tools that promote Our Safety Culture

Focused intervention

The second method being used to introduce the framework is focused interventions in specific areas of the business. This approach allows Woodside to target areas where there is a critical and immediate need for safety improvement, design an intervention plan tailored for that area of the business and take pre and post measures to evaluate improvement. Importantly, it allows Woodside to apply the lessons learned from intervention in one area prior to undertaking a similar initiative in another area of the business. Although interventions for specific areas vary to accommodate unique needs and issues within that area, the key activities can be summarized broadly and are depicted in Figure 4. The timing of these activities depends on the size and structure of the business area.

Figure 4. Overview of activities associated with focused intervention



Planning

Figure 4 illustrates that the first stage of a focused intervention is to educate the senior leaders of the business area about Our Safety Culture and seek their commitment and involvement. Subsequently, the Site or Project Managers and Safety Managers are also educated about Our Safety Culture and their assistance sought in developing a detailed implementation plan accounting for the specific structure, climate, target population, issues and existing behavioural practices in their area.

Workshops

The next phase of a focused intervention is conducting Workshops, as depicted in Figure 4. Half day workshops are the method used to formally introduce Our Safety Culture. These workshops are conducted initially with Managers and Supervisors because their influence on the workforce is critical and, accordingly, it is their behaviour that needs to change first. The content of these workshops includes:

- Introduction to the concept of safety culture
- Woodside's need for a common behavioural framework
- Development of the framework
- Explanation of the framework and its relation to other HS and HR systems
- Assessment activity to become familiar with the framework and establish a baseline
- Development of leader and supervisor objectives for the intervention
- Development of individual commitments
- Discussion about follow-up supporting activities

Subsequently, half day workshops are conducted with the workforce. The content of these workshops is largely similar to those conducted for Managers and Supervisors. However, they include development of team action plans, given that ideally these workshops are conducted with in-tact teams. Moreover, manager and supervisor objectives for the intervention are communicated to these groups rather than developed. Managers and supervisors are encouraged to help facilitate these workshops.

Next, awareness workshops are conducted with contractors. Most of Woodside's contractors have their own behavioural programs and systems, therefore, these workshops are to inform contractors of the behaviours that Woodside expects of them and to examine how their current practices reinforce these standards. Support material is provided to contractors.

A range of material is used to support the focused work on Our Safety Culture. This includes various presentations, a workbook, gap analysis questionnaire, intranet information, pocket cards, posters and other promotional material.

Follow-up Activities

The third and ongoing stage of the focused intervention shown in Figure 4 is a range of follow-up activities. These actions—and particularly a focus on consequences—are critical to achieve sustained behaviour change. Initial follow-up involves acting on activities resulting from the Workshops, namely manager and supervisor objectives, team action plans and individual commitments. Subsequently, a follow-up workshop is conducted to review and refresh objectives and commitments. Other follow-up activities are likely to include 360 degree feedback for managers and supervisors and team reassessment to determine improvement against the original baseline measure. These activities associated with reinforcing and embedding Our Safety Culture vary depending on the characteristics of the area, and the presenting issues. Indeed, the success of focused intervention will in part depend on tailoring the follow-up activities to that area. Given that the framework has been already embedded into various HS systems, it will also be reinforced through organisational activities.

CONCLUSIONS AND FURTHER WORK

This paper describes Woodside's two-tiered approach to introducing the behavioural framework into the business: organisation-wide integration and focused intervention. Integrating the model into existing safety management and human resource systems—namely, standards, training and development, communications, and the organizational climate survey—illustrates the flexible nature of the model and facilitates ongoing reinforcement of the expected behaviours.

Introduction of the framework to the leadership teams across the business has been well received. The feedback at Woodside reflects that obtained in other companies where similar models have been introduced. Namely, that the framework is practical and easy to understand, makes tangible the concept of safety culture, provides a holistic approach to improving safety behaviour and is flexible in its application. Moreover, staff are positive about how it differs from other safety culture improvement methods—specifically, that it is a framework rather than a program, and defines individual behaviours at various levels as well as their interrelationships.

Challenges encountered have predominantly reflected an entrenched understanding of behavioural initiatives as programs and short-lived fads. Ongoing education around the purpose and application of competency models is helping shift this perception. Moreover, a need to assist leaders and managers in translating how the behaviours can be displayed on a day-to-day basis has become apparent and is being addressed through the leadership training.

Focused interventions are currently being implemented in two different business areas: Operations and Projects. Evidence of safety culture improvement is being monitored and should be available for SPE HSE 2009.

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