ACHIEVING HSE GOALS IN THE OIL AND GAS INDUSTRY

SUCCESS THROUGH BEHAVIORAL ALIGNMENT

Satori Consulting Point of View
/value proposition of hse strategy behavior alignment

Improving the execution of HSE (Health, Safety & Environmental) strategy will support organizations in reducing incidents and accidents, reducing risk and improving business results. To achieve this, it is essential to align workforce behaviors to the objective of their HSE strategy.

**HSE Business Drivers**
- Impact of catastrophic accidents
- Significant number of ‘routine’ incidents, accidents and spills
- Downtime and productivity metrics improvement
- Workforce welfare improvements
- Corporate brand/image risk
- Pressure from Regulators and fines for non-compliance

**Key Implementation Issues**
- Human error is the single largest driver of accidents and incidents (≈50%)
- Inconsistent HSE strategy (objectives, goals, metrics)
- Behaviors are not aligned to HSE strategies
- Limited behavior reinforcement and incentives
- Limited success of interventions (e.g. process reengineering, culture programs)

[Diagram showing the impact of improved HSE behavior alignment]

**Impact of improved HSE behavior alignment**
- Increased HSE behavior alignment leads to increased incident reduction

**Workforce behaviors**
- Clear definition of desired workforce behaviors aligned to the HSE strategy (objectives, goals, metrics)
- Management drive HSE implementation demonstrating leadership, commitment and acting as role models
- Managers ensure HSE is a fundamental basis for all actions
- Workforce is engaged and rigorously execute all HSE practices and systems at all times

**HSE Strategy impact**
- Improved effectiveness of HSE strategy
- Improved understanding of HSE strategy (objectives, goals, metrics)
- Reduction in human error related incidents and accidents
- Reduction in unsafe workforce activities
- Improved downtime
- Increased production
- Improved labor utilization
WHY ARE TRADITIONAL HSE IMPLEMENTATION METHODS FAILING?

Generally, interventions to improve the execution of HSE strategies focus on broad operations (e.g. process) and culture programs, with results that often have slow returns and do not focus on key challenges of workforce behavior alignment.

<table>
<thead>
<tr>
<th>Traditional improvement interventions</th>
<th>Execution challenges</th>
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<tbody>
<tr>
<td>• HSE and operations process mapping/ consolidation/ redesign (e.g. Lean Six Sigma)</td>
<td>• <strong>Interventions are very broad</strong>, difficult to implement and often have limited significance at an operational level</td>
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<tr>
<td>• General HSE culture, communication and learning programs</td>
<td>• HSE strategy and process <strong>do not specifically focus on tactical behavior alignment</strong> at operational level and are ignored</td>
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<tr>
<td>• New HSE strategic initiatives</td>
<td>• HSE strategy <strong>lacks metrics and goals that drive behaviors</strong></td>
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<td>• Formal and informal leaders <strong>don’t clearly understand their roles and responsibilities</strong> for sponsoring HSE initiatives</td>
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<td></td>
<td>• <strong>Limited use of reinforcement and incentive programs for HSE</strong></td>
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<td>• HSE Culture change initiatives are <strong>slow to take effect</strong></td>
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Broad HSE operations and cultural programs are fundamental – However, there is still a clear need to achieve improved implementation of business strategies through workforce behavior alignment.
THINK DIFFERENTLY – FOCUS ON KEY STRATEGY DELIVERY EVENTS

Strategy Delivery Events (“SDEs”) - single moments where one or more process activities that generate a disproportionate value to the organization are executed by the workforce. It is our experience that the most significant driver of successful outcomes in SDEs are workforce behaviors.

What are SDEs and how should their performance be aligned?

All strategies are delivered through processes and activities

SDEs that deliver strategy can be identified within processes

Focus on aligning workforce behaviors of SDEs with highest strategic importance

Focusing on SDEs allow companies to:

• Focus resources on areas that drive HSE strategy execution
• Customize interventions for individual SDEs situations generating significant improvements in short timeframes
• Focus interventions on tactical behavioral alignment at operational levels
• Complement traditional broad operations and processes (e.g. Lean Six Sigma) and culture programs
EXECUTING BEHAVIOR CHANGE – OUR METHOD

The Behavior Alignment Method provides a framework to align SDEs behaviors to the objective of the HSE strategy and, as a result, improve the effectiveness with which organizations deliver their HSE strategy.

The Behavior Alignment method

How the Behavior Alignment method is used:

The key is to target specific behaviors during specific SDEs where their execution has significant impact on the delivery of the HSE strategy. To accomplish this, the leadership team should:

• Clarify strategic goals
• Identify SDEs that deliver the strategic goals
• Identify the key workforce segments involved in these business events
• Define and envision desired behaviors
• Assess performance gaps and understand factors holding the existing behaviors in place
• Design interventions to promote new behaviors and close performance gaps
Behavior change should not just focus on communications and learning. Organizations should take a holistic view and identify the best enablers to drive behavioral changes in SDEs. Additionally, they should have a method for continuous improvement in the performance of SDEs and behavior reinforcement.

What levers can we use to align SDE behaviors?

How can we implement and continuously improve the performance of SDEs?

The most effective behavioral alignment demands more than just communication and learning; it needs to ensure that the entire setting facilitates and reinforces the required behaviors.
BEHAVIOR ALIGNMENT AND IMPACT TO HSE METRICS

The Behavior Alignment Method is designed to generate metrics that measure the impact of intervention to SDEs and the wider impact to HSE execution and the business. Successful Behavior Alignment method deployment will show a cascading effect to the business over time.

Strategic Impact

Point Of Departure (“POD”)

Accident/incident reduction Metrics
- Reduction in human error related incidents and accidents

HSE implementation metrics
- Improved effectiveness of HSE strategy
- Improved understanding of HSE strategy (objectives, goals, metrics)

SDE & Behavioural metrics
- SDE specific performance metrics
- Adherence to defined behaviors

Point Of Arrival (“POA”)

Time to see significant improvement
TYPICAL PROJECT APPROACH

HSE strategy execution is an increasing priority in the Energy industry. The Behavior Alignment Method provides a differentiated approach for achieving strong results.

Below are examples of client situations where The Behavior Alignment can have significant impact in HSE strategy execution:

<table>
<thead>
<tr>
<th>Typical Client Situations</th>
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<tbody>
<tr>
<td>• Incidents and accidents present a major risk to the organization</td>
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<tr>
<td>• Human error is a significant root cause of incidents and accidents</td>
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<tr>
<td>• HSE strategies are inconsistently understood and/or are executed poorly</td>
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<tr>
<td>• Poor execution of HSE strategy is seen as a significant barrier to incident and accident reduction</td>
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<tr>
<td>• Culture is seen as a major barrier to the execution of HSE strategy</td>
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<tr>
<td>• Most attempts to change organization culture have limited results</td>
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<td>• Process reengineering is not achieving the required behavioral changes</td>
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<thead>
<tr>
<th>Example of HSE processes where Behavior Alignment can be used (not exclusive)</th>
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<tbody>
<tr>
<td>• Identification of workplace hazards</td>
</tr>
<tr>
<td>• Management of HSE human performance issues</td>
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<tr>
<td>• Prevention programs and programs to minimize consequences of accidents</td>
</tr>
<tr>
<td>• Programs to ensure the workforce has the required capability and experience</td>
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<td>• Ergonomics programs</td>
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<td>• Programs to ensure there are available operating procedures and the workforce adheres to the procedures</td>
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<td>• HSE learning programs</td>
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<tr>
<td>• HSE technology systems adoption</td>
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<td>• Succession planning programs</td>
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<td>• HSE governance</td>
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<td>• Road safety programs</td>
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TYPICAL PROJECT APPROACH

Project approach will vary depending on the scope, the complexity of interventions and the maturity and complexity of the client.

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<tr>
<td>Typical project design</td>
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<tr>
<td><strong>Project timeframes:</strong> 14 weeks to 18 weeks</td>
<td><strong>Project timeframes:</strong> 16 weeks to 52 weeks</td>
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<tr>
<td><strong>Approach highlights:</strong></td>
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<tr>
<td>▪ Pilot focused on 2 to 3 SDEs interventions</td>
<td>▪ Time and resource requirements will vary depending on the type of interventions and impacted workforce</td>
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<td>▪ 1 to 2 installations piloted</td>
<td>▪ Deployment of interventions through train-the-trainer of client local teams/ sponsors (change agents)</td>
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<tr>
<td>▪ 4 phase project:</td>
<td>▪ Project team responsible for deployment (PMO, benefit realization, deployment logistics, field questions) with future continuous improvement carried out by CoEs</td>
</tr>
<tr>
<td>1. Planning</td>
<td>▪ 3 core deployment workstreams</td>
</tr>
<tr>
<td>2. Identification and prioritization of SDEs</td>
<td>1. PMO &amp; Metrics</td>
</tr>
<tr>
<td>3. Definition of desired behaviors</td>
<td>2. Logistics &amp; field support</td>
</tr>
<tr>
<td>4. Design of behavioral interventions</td>
<td>3. Train the trainer field teams</td>
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<tr>
<td>5. Implementation of interventions</td>
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