The Organizational Safety and Reliability (OSR) Assessment: A Comprehensive Process to Identify and Control Exposure to Injury

Introduction

The way we approach workplace safety determines if incidents are left to chance or if they will be ridden from the workplace.

The OSR Assessment uses the DEKRA Exposure Reduction™ Model to diagnose vulnerabilities and strengthen workplace safety by focusing on the underlying causes that heighten the exposure to risk. Think of it as a way to eradicate a disease by focusing on a cure instead of just treating the symptoms. With the same rigor that medical experts use to create a diagnosis and subsequent treatment plan aimed at bettering the health of their patients, DEKRA OSR Assessment professionals are trained to probe into the deeper systemic issues that put human workers in jeopardy.

Addressing safety problems after an injury is not enough. That's because reactive measures often miss the deeper problems that led to that injury. Immediate responses to specific incidents matter. However, organizations that move beyond focusing on "flavor of the month" safety solutions such as safety stand-downs, additional training, or a new procedure, are those that understand why employing a more comprehensive approach will lower incident rates, create a happier and healthier workforce, reduce overall costs, and ultimately improve the bottom line.

It starts by tailoring the Assessment according to the nature of the organization and its overall industry. While the process is certainly intensive, the mission of the DEKRA OSR Assessment is to understand the organization's overall maturity profile regarding current approaches to safety and then provide mechanisms that put the organization on a better path forward.

Who Needs the OSR Assessment and Why

The DEKRA OSR Assessment is designed to help:

• Organizations working in industries with serious exposures, such as mining, manufacturing, oil and gas, pharmaceutical, and transportation, and those operating multiple facilities around the world.

- Senior leaders seeking to prevent near catastrophic events or who are frustrated that they can't move the needle toward safety despite trying many different methods.

- Supervisors having difficulty finding a way to communicate effective protocols.

Removing or controlling exposure helps organizations reduce exposure to injuries and fatalities, including so-called "black swan" incidents that are often unforeseen and extremely difficult to predict.

However, despite the seemingly random nature of these events, the underlying conditions enabling them are often in plain sight. The OSR Assessment evaluates the seven elements key to exposure in the workplace, from an organization's culture to cognitive function factors.

Safety mishaps are ultimately a threat to an organization's bottom line. For example: companies lose an average of 12% of shareholder value for six months following a catastrophic incident, according to DEKRA OSR data.

Additionally, the [2018 Liberty Mutual Workplace Safety Index](#) found that:

- Serious, nonfatal workplace injuries totaled nearly $60 billion per year in direct U.S. workers compensation costs, or $1 billion a week spent by businesses on injuries.

- Overexertion ranks as the leading cause of disabling injuries, costing U.S. companies nearly $14 billion in direct costs. Falls represent the second highest injury in cost, forcing companies to pay $11 billion per year.

Direct costs include workers' compensation payments, medical expenses, and costs for legal services.

For some industries, the cost burden is even higher: [The U.S. Chemical Safety and Hazard Investigation Board](#) reports that as late as 2013 hundreds of billions of dollars have been spent as a result of chemical disasters in the U.S. due to lack of hazard awareness and insufficient planning.

Clearly, organizations need to do more to change the factors embedded in their culture and processes to prevent disaster from happening, protect their workers from harm and keep productivity intact.

Approaching Safety Through the 7 Elements of Exposure

At its core, the DEKRA OSR Assessment is designed to root out exposure where it exists.

When workers are in the vicinity of a hazard those workers are exposed to potential injury. This exposure may be silent and unrecognized and lie dormant for long periods of time, especially within repetitive tasks. Unfortunately, when these exposures do surface they can be catastrophic.

One example from 2011: A new, enthusiastic, yet unqualified worker climbs on and operates a common piece of equipment because he just wants to be helpful. Is he vulnerable? In this

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example the worker died on his first day on the job because he mistakenly engaged a forward gear instead of reverse, tragically crushing himself.

An organization not taking safety culture seriously might call this a "one-off" incident. But it's not. A fatality like this is an inevitable expression of an unmitigated vulnerability that existed before the incident. And similar events will recur unless the exposure is recognized and controlled.

Dealing with exposure can feel like a black box activity. We understand the concept but visualizing how to control exposure is difficult.

Understanding the essential elements within the box is the first step to its control. The degree to which exposure exists, or even thrives, within an organization can be distilled to seven common elements and their effects on exposure:

1. Leadership

How leaders set the tone, own the results, and all things in-between.

Effect on exposure: When leaders communicate and live their values they are inspiring and influential.

2. Culture

How work gets done within the organization.

Effect on exposure: When expectations are clear and credibility is high everyone understands how to work with each other in a safe and effective manner.

3. Working Interface

Where people, processes, and equipment come together to create value.

Effect on Exposure: Workers are naturally inclined to look out for each other and perform beyond their individual job requirements.

4. Human Performance Reliability

The recognition of cognitive aspects of human fallibility.

Effect on Exposure: Performance of tasks and activities are corrected the first time and every time.

5. Governance

How management communicates their intentions, how workers identify needs, how barriers to action are removed, and information is shared.

Effect on exposure: Transparency is created around intentions, needs, and progress in implementation of change.

6. Exposure Control Systems

Systems that specify the processes and provide skills necessary to effective work.

Effect on Exposure: Provides consistency of work across teams and over time.

7. Performance Management

How workers are selected, motivated, and rewarded for work performed.

Effect on Exposure: Sustained alignment of safety performance with job demands.

What an OSR Assessment Examines Within an Organization

An assessment of an organization along these seven elements provides a clear understanding of the organization's vulnerability to injury. It is most effective when performed across levels and operational systems to determine how various groups are influenced differently. The typical OSR Assessment examines the following:

- Recent past data describing incidents, near misses, hazard analyses and so forth to identify process trends, reporting relationships, potential for life altering injury, contribution of brain-center hazards, and organization-wide alignment of risk.

- Types and delivery of policy and procedures, skill development, hazard management, response to upsets, corrective action process, and design.

- Use of selection, placement, reward, performance management, and accountability relative to safety.

- Diagnostics of input from across the organization on its cultural attributes, with comparison to industry or global benchmarks.

- Non-attributed discussions with all levels of the organization around the exposure elements.

The mission of the DEKRA OSR Assessment is to understand the organization's overall maturity profile regarding current approaches to safety and then provide mechanisms that put the organization on a better path forward

AVOIDANCE		COMPLIANCE		VALUES	
Burden	**Necessity**	**Priority**	**Goal**	**Value**	**World-Class**
Safety is viewed a hindrance with incidents/errors inevitable. Focus is on self-preservation.	Safety is externally driven, and reactive; focused on avoiding cost. High hazard are normalized.	Safety priority is susceptible to change. Workers blamed when injured, rewarded when not. Leaders espouse reliability, but tolerate poor performance.	Executives/leaders are accountable for safety and grasp human reliability. Safety influences advancement. Workers control exposure.	Worker wellbeing has intrinsic worth. Leadership embraces exposure control, reliability, and own governance. Safety is a key aspect to performance.	Safety is inherent, sensitive to subtle changes, inclusive, with self-motivated workers, learning-oriented leaders, effective governance, human performance driven reliability.

The OSR Assessment Process

The OSR Assessment is designed to discover how the organization works within the framework of the seven elements. It may span three to five months with the organization intimately involved in each stage.

The process begins by meeting with the key leaders of the organization to establish the roles among all stakeholders. The takeaway is that the process will be a partnership involving the participation of all parties to focus on the central goal of identifying the conditions leading to exposure and creating a roadmap to counteract them.

The OSR Assessment professional dives into historical organizational data such as incidents, near misses, hazard analyses and more to evaluate potential trends and to create a sense of the organization's safety performance. Executive team members are interviewed to understand their perspective, and several key systems are reviewed. At the same time the organizational culture diagnostic instrument ™ is administered to develop a quantified measure of the organization's culture along a number of key scales, and benchmarked against DEKRA OSR's extensive global database. The executive team is briefed on these results at the midpoint to gain their perspective.

The next step involves onsite visits across a number of locations consisting of individual interviews, focus groups, with supervisors and frontline workers, and line-of-work observations and engagement in order to give the data context. The combination of fieldwork and analytics is then quantified through an exposure maturity classification system.

Exposure reduction maturity is classified at one of six levels, ranging from "Burden" to "World Class." Quantifying the organization's maturity along this continuum provides a comparison of current state to what good "looks" like. Leadership receives a handful of strategic recommendations, each with a tactical course of action. These recommendations are operationalized into a road map that can be implemented and sustained into the future years.

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working in industries with serious exposures, such as mining, manufacturing, oil and gas, pharmaceutical, and transportation.

Senior Leaders

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Supervisors

having difficulty finding a way to communicate effective protocols.

About the Author

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William Bozzo is an award-winning EHS professional and executive leader, he has guided numerous operations, startups, decommissions, and program implementations and integrations. As Vice President at DEKRA OSR, William Bozzo has extensive expertise in high-level planning for environmental, safety and health, sustainability, risk management, quality assurance, and strategic design.

Conclusion

Every organization, every industry, and every workforce, has a unique combination of exposure reduction elements that influence safety. The DEKRA OSR Exposure Reduction™ Model provides a structured mechanism for sorting out which key levers to pull to both recognize exposure and control the contributors to its persistence.

Understanding and pursuing these levers in the context of changing operational and business activities is critical to sustaining the desired outcome – no one being injured. The OSR Assessment process provides the process for an organization to understand and act on its exposure signature within its constantly changing business and operational demands.

By recognizing and controlling exposures as they arise, we greatly reduce, and ideally eliminate, vulnerability to injury.

For more information on DEKRA OSR Assessments

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