



## Understanding Safety Culture

### Key Points

- Serves as an overview of an upcoming Executive Insight series from NAC, “The Safety Culture Series.”
- Defines a safety culture.
- Cites specific actions needed to develop an effective safety climate.
- Describes the elements of a safety management system.
- Lists specific actions to check if a safety culture exists and the steps needed to maintain it.

### Introduction

Assuring safety in construction is difficult. It starts with “Safety in Design” and an understanding by corporate leadership of the business case for safety, of risk, and of hierarchy of controls, and a deep commitment to the goal of zero incidents. These concepts are covered in more detail in other Executive Insights.

Safety demands a huge commitment. That commitment includes establishing the right culture, providing the right skills and tools, and creating the right systems to connect everything. The upcoming series of Executive Insights from NAC will address the essential elements of attaining zero incidents: establishing, maintaining, and assuring a safety culture.

### Safety Culture Defined

A *safety culture* can be defined as “an all-employee system of shared beliefs, practices, and attitudes in an organization that shape behavior and drive the way in which all work is performed.” A safety culture is created by having both a formal safety management system, which addresses key processes and procedures to be followed, and a safety climate, which defines the manner in which the employees in the operation behave.

The Executive Insight “How to Create a Zero-Injury Culture” provides an overview of a safety culture. The purpose of this introductory Executive Insight to the Safety Culture Series is to further guide and expand on the actions needed to create and maintain this culture.

## Establishing a Safety Climate

A safety culture requires a proper safety climate and an effective safety management system. To create the desired safety climate, leaders must be unified in purpose, approach, and message so there is harmony in all relationships within the culture.

The desired safety climate only occurs when leader-to-worker communications and actions show genuine concern for worker welfare. All workers must feel everyone in the organization is fully committed to every individual's safety. All must be willing to learn from mistakes and incidents. Importantly, everyone must feel free to bring safety observations to management without fear of reprisals.

Specific actions to achieve this safety climate include the following:

- [Worker participation and involvement in defining the elements of the safety management system and making necessary adjustments.](#)
- [Leaders throughout the organization continuously and genuinely show a deep "caring behavior" for those supervised, thus creating a culture of care and support for each other.](#)
- [Leaders acknowledging that humans do make mistakes and accidents do not typically happen on purpose.](#)
- Leaders avoiding placing blame and instead focusing on system improvements.
- Leaders gaining buy-in from employees to avoid at-risk behaviors.
- Supervisors exercising "Stop-Work" authority without fear of reprisal.
- [Employees not hiding injuries to avoid punishment.](#)
- Developing excellent, actionable leading indicators, which results in receiving early warnings so improvements can be implemented.

## Elements of a Safety Management System

A well-designed safety management system is a prerequisite for an excellent safety culture. Even a well-designed safety management system, however, is not sufficient by itself. Elements of an effective safety management system include:

- [Demonstrated management commitment \(at all levels\) to the core belief that "all accidents can be prevented."](#)
- Adequate staffing with safety professionals.
- [Establishing safe work practices for common activities.](#)
- [Job safety planning before undertaking specific activities.](#)
- [Safety training and education.](#)
- [Subcontractor management.](#)
- [Recognition and rewards.](#)
- [Incident/accident/near miss reporting, and investigations focused on root causes.](#)
- [Drug and alcohol testing.](#)

## **Maintaining and Assuring an Excellent Safety Culture Exists**

For an excellent safety culture to exist, everyone in a supervisory role must understand and be fully committed to the need for and the principles of a safety culture.

Specific actions to check that a safety culture exists and to identify areas for improvement include:

- [Leadership involvement in routine office/site visits.](#)
- Periodic audits and worker surveys to assure the safety management system is working as defined and achieving the desired outcomes.
- Dissemination of learnings from incidents/accidents/near misses with an emphasis on root cause and not blame.
- [Safety Culture Series – Improving Construction Profitability](#)

## **Summary/Conclusion**

This Executive Insight is an overview document outlining the essential elements of creating an effective safety culture. These elements fit into three categories:

1. Establishing a safety climate.
2. Creating an effective safety management system.
3. Assuring that a safety culture exists.

A series of follow-up Executive Insights that supports a safety culture will provide more detailed guidance and best practice use across the elements of these three categories.

# Safety Culture Series Organization

## Introduction

Understanding Safety Culture – Ken Arnold, and David O’Connor

[Improving Construction Profitability](#) – Ken Arnold

## Establishing a Safety Climate

[Worker Participation in the Safety Management System \(SMS\)](#) – Craig Martin

[Demonstrating a Culture of Care and Support: The Leaders’ Role](#) – Craig Martin

[Human Performance Principles](#) – David O’Connor

Gain buy-in from employees to avoid “at risk” behaviors

Exercising “Stop Work Authority” without fear of reprisal

[How to Prevent Employees “Hiding” Injuries](#) – Emmitt Nelson

Developing excellent, actionable leading indicators – receive early warnings so improvements can be implemented

## Elements of a Safety Management System

[Management Commitment: All Safety Incidents Are Preventable](#) – Dan Johnson

Construction Site Safety Staffing Guidelines

[Safe Work Practices](#) – Ken Arnold

[Job Safety Analysis](#) – Ken Arnold

[Safety Training](#) – Christine Branche

[Subcontractor Involvement in the Safety Culture](#) – Craig Martin

[Recognition and Reward](#) – David O’Connor

[Incident/Accident/Near Miss Reporting and Investigations](#) – Mike Loose

[Drug and Alcohol Testing](#) – Mike Loose

## Maintaining and Assuring an Excellent Safety Culture Exists

[Leadership Involvement in Office and Site Visits](#) – David O’Connor

Periodic audits and worker surveys to assure SMS is working as intended

## **About the Authors**

Ken Arnold was elected to the National Academy of Construction in 2014. In his 55-year career in oil and gas for Shell and as founder and CEO of a mid-size project engineering and project management company he has been recognized by the National Academy of Engineering, Society of Petroleum Engineers, the Offshore Technology Conference, API and ASME for promoting safety in design, construction and operations of onshore and offshore production facilities. He also is an author on safety, project management, and facilities design and is a Professional Engineer.

David O'Connor was elected to the National Academy of Construction in 2020. In his 40-year career with Amoco & BP, he has served in engineering, technical, and leadership positions in the UK, Norway, Egypt, Middle East, Algeria and the U.S. In 2015, he became head of all BP global projects in the Upstream Division. He is known for transforming project organizations into the best learning organizations in the industry. David retired from BP in 2020.

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