

## Critical Steps - Managing What Must Go Right in High-Risk Operations

A CRITICAL STEP is a human action that will trigger immediate, irreversible, and intolerable harm to an asset, if that action or a preceding action is performed improperly. CRITICAL STEPS happen every day at work and at home. Work does not happen otherwise.

"WHAT ACTIVITIES,
IF PERFORMED LESS
THAN ADEQUATELY, POSE
THE GREATEST RISKS
TO THE WELL-BEING
OF THE SYSTEM?

#### Work = Risk

Work is energy directed by people to create value. If an operation has the capacity to do work, it has the capacity to do harm. But people are imperfect. Workers, including managers, make mistakes. Therefore, work is the use of force under conditions of uncertainty—human fallibility.

Dr. James Reason

Author, Managing the Risks of Organizational Accidents (1997)

### Safety

Consequently, absolute safety is impossible to achieve with any human endeavor. Risk—the specter of losing control of hazards—is continually present. Most operations require some degree of human oversight and/or control of work. That means that some human actions MUST go right the first time, every time—when "failure is not an option."

#### **Principal Goal**

The principal goal of this course is to maximize the success (safety, reliability, productivity, quality, etc.) of people's performance in the workplace—to create value for the organization without losing control of built-in hazards necessary to create that value.











#### **Course Objectives**

This video training course is deliverable in two approaches, one for management and one for front-line workers, for those who manage operational aspects that depend on the individual worker to get things right the first time.

These goals are accomplished by these objectives:



Identify known (and recognize unknown) CRITICAL STEPS and their preconditions for safety established by their preceding Risk-Important Actions



Exercise positive control of CRITICAL STEPS during work



Fail safely if a loss of control occurs during a CRITICAL STEP



Align and realign the organization's system to support the preceding objectives

# Human error—loss of control—in high-hazard operations cannot be left to chance.

The risk must be managed, organizationally and in real time at the worksite. We hope this video training course will help you think more systematically about how success happens each day not only in your organizations, but also in your personal and professional lives, ensuring that the CRITICAL STEPS in your life and work result only in adding value, not harm.

#### **Course Modules**

**Module 1** defines CRITICAL STEPS and describes its attributes. This module discusses how identifying and controlling CRITICAL STEPS promotes organizational success while eliminating harm to the company and its key assets.

Module 2 orients the student as to how to think about widely used human performance risk in front-line operations. More importantly, we reframe human error as a loss of control because events—harm to assets—are caused by hazards, not by front-line workers.

**Module 3** examines the Work Execution Process, which describes how work is planned, executed, and improved. Understanding the three phases of work help in the systematic preparation and performance of CRITICAL STEPS, as well as learning from surprises.

**Module 4** explores those human actions, Risk-Important Actions, that precede CRITICAL STEPS and that set up the required preconditions to ensure success when front-line workers perform CRITICAL STEPS.

**Module 5** addresses the Performance of CRITICAL STEPS in the workplace. This module is divided into two parts.

Module 5: Part 1 emphasizes the need for positive control, shifting between fast and slow thinking.

Module 5: Part 2 describes the application of Risk-Based Thinking through the mindful use of Human Performance Tools—time-tested methods to manage the lead up to and execution of CRITICAL STEPS.

Module 6 (Management Only) provides those in leadership positions with a workable strategy for managing CRITICAL STEPS— learning to more effectively and consistently identify and control CRITICAL STEPS from a systems perspective; includes ways and means for augmenting adaptive capacity to respond to the unexpected.







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