

SAFETY-CRITICAL PROCEDURES

DO YOU KNOW HOW THIS APPLIES TO YOUR OPERATIONS?

SAFETY BULLETIN

ISSUE# 04-2019

Issues with procedures are often identified as a significant factor in major incidents: procedures were not adhered to, were inadequate (unclear or incorrect) or were missing. One strategy to avoid such issues is to define certain tasks and equipment as safety-critical.

WHAT IS A PROCEDURE?

“Procedure” refers to a step-by-step list on how to safely conduct a task and may involve other aids such as checklists, flow charts, guidelines, etc.

When determining whether a procedure is needed a few factors should be considered:

- How often is the task performed?
- How complex is the task?
- What is the level of competency?
- Is the task safety-critical?

WHAT IS SAFETY CRITICAL?

Safety-critical applies to controls that prevent or mitigate the effects of a major event or incident. Safety-critical equipment and tasks are selected based on a risk assessment.

Safety-critical equipment such as pressure relief valves, emergency shutdown devices, vehicle brakes, etc. are the preferred engineering controls over administrative controls like procedures. However, procedures are always important in mitigating risk and supporting engineering controls.

WHAT IS A SAFETY-CRITICAL PROCEDURE?

Safety-critical procedures may be described as procedures that:

- Have the potential to initiate a major event or serious incident if not strictly adhered to.
- Involves the operation or maintenance of safety-critical equipment.
- Are designed to stop or prevent the escalation of an event sequence.
- Are connected to one or more Life Saving Rules.

An example of a safety-critical task and procedure is “breaking containment”, such as opening a pipe, tank or vessel.

CONNECTION TO LIFE SAVING RULES

Obtain authorization before overriding or disabling safety controls

One of [Energy Safety Canada’s Life Saving Rules](#) is Bypassing Safety Controls, which refers to safety-critical equipment and procedures and consists of the following:

- I understand and use safety-critical equipment and procedures which apply to my task
- I obtain authorization before:
 - Disabling or overriding safety equipment
 - Deviating from procedures
 - Crossing a barrier



**BYPASSING
SAFETY
CONTROLS**



SAFETY-CRITICAL PROCEDURES

DO YOU KNOW HOW THIS APPLIES TO YOUR OPERATIONS?

SAFETY BULLETIN

ISSUE# 04-2019

WHAT CAN SUPERVISORS DO?

- Know what procedures are defined as safety-critical in your operations and ensure you have communicated them to your workers.
- Ensure workers can demonstrate competency in the use and limitations of safety-critical equipment and procedures.
- Ensure safety-critical procedures are rigorously adhered to. Verify this through inspection and worker observation programs.
- Understand and adhere to how your organization manages change in process and equipment.

WHAT CAN WORKERS DO?

- Adhere to the [Bypassing Safety Controls Life Saving Rule](#) or similar rules within your organization.
- Do not override or disable safety equipment, deviate from procedures or cross a safety barrier unless you have been authorized to do so.
- Stop work and notify your supervisor if a procedural deviation is required.
- Intervene when co-workers are not authorized to bypass safety-critical equipment or procedures.
- Exercise your right to refuse dangerous work. Often situations can be easily resolved by speaking to your supervisor.

ADDITIONAL RESOURCES

- [Life Saving Rules](#)
- [Life Saving Rules Explanation Guide](#)
- [HSE Executive - Revitalizing Procedures](#)
- [CAPP Identification of Safety Critical Equipment](#)
- [A practical Application of “Human-Hazop” for critical procedures, 2009 IChemE](#)
- [IRP 7: Competencies for Critical Roles in Drilling and Completions Operations](#)

PRESENT LIKE A PRO

Before you begin:

Understand the topic and how it applies to you and your team.

Research your own company’s experience and provide examples that pertain to your work areas.

If you’re not able to answer a question, find the information and make sure you follow up.

Consider the audience. Are they familiar with the topic and the terminology?

Involve the group:

Ask them to identify safety-critical procedures for your operations.

Discuss how your organization defines and identifies safety-critical procedures.

Review your work and identify any potential opportunities for improvement. Are procedures:

- Not adhered to?
- Inadequate?
- Missing?

Ask the group for ways to improve the quality of procedural controls on your work site.

