## **ENVIRONMENT, HEALTH & SAFETY**

ALPHA BRAVO COLLINS

#### **UTC EH&S CARDINAL RULES - CONTRACTORS**

What contractors need to know to comply with the UTC EH&S Cardinal Rules.

### Day 1 of Collins Aerospace

Throughout manufacturing, the industry has identified five (5) categories of risk that have continually shown a high potential for causing serious injuries or fatalities. UTC has identified these five Risk Categories as **UTC EH&S Cardinal Rules**. The UTC EH&S Cardinal Rules are designed to increase awareness of the high hazard/risk areas common to all UTC locations. To ensure the safety of all employees, visitors, and contractors, everyone must follow the UTC Cardinal Rules regardless of their position, location or job title.

### What are the five (5) "Cardinal Rules"?



## **Confined Spaces**

"Confined Spaces shall be identified and written procedures established and followed for entry."

Establish written confined space entry procedures, including following a permit system for entering permit-required confined space entry.

#### **Examples of violations:**

Not using a Permit System to authorize entry into a confined space, or not following properly defined entry procedures



### **Fall Protection**

"Contractors shall use fall protection when working at an elevated height of 6 feet (2 meters) or greater." Contractors must understand how to properly use required fall protection equipment. When personal restraint or fall arrest systems are required, knowledge of the system, proper use and appropriate behavior are critical to prevent serious injury.

#### **Examples of violations:**

Working on a platform higher than 6ft (2m) without proper fall protection.

Working on top of a machine 6ft (2m) high while wearing a harness and lanyard, but never adjusting the lanyard to prevent a free fall of 6ft (2 m). Working on rooftops 6ft (2 m) high or higher and within 3 meters from an unprotected edge without fall protection.

# **ENVIRONMENT, HEALTH & SAFETY**

ALPHA BRAVO COLLINS



## **Electrical Safety**

"Contractors shall use Ground Fault Circuit Interrupters (GFCI) on all portable tools and electrical devices used for construction activity and for work where exposure to damp or wet areas, or whenever damage to cords, plugs and receptacles is possible."

The intent of this Cardinal Rule is to protect against dangerous shocks caused by faulty extension cords, wiring or damaged equipment.

### **Examples of violations:**

Operating portable electrical tools or equipment without a GFCI during a construction project.

Not using a GFCI while using a hand held power tool in an area where liquid has accumulated on the floor due to a leak or spill.

Using a tool without a GFCI in a manufacturing area where there is potential for damage to the cord or tool.



# **Hazardous Energy**

"Prior to performing work on machines, systems or equipment, contractors shall identify, secure and relieve all sources of hazardous energy, and verify Zero Energy State (ZES) before work begins"

Lockout/tagout (LOTO) protects individuals from injuries caused by accidental or unexpected activation, start-up of, or release of stored energy during equipment servicing, installation, maintenance or repairs.

#### **Examples of violations:**

Performing maintenance on systems, machinery or equipment (including removing machine guarding) without first locking and tagging out the energy sources and verifying that a Zero Energy State has been achieved.

Five employees performing maintenance on a machine, but only two of the five employees applying appropriate locks and tags.



# **Machine Guarding**

"Contractors shall

This rule assumes that all

**Examples of violations:** 

# **ENVIRONMENT, HEALTH & SAFETY**

ALPHA BRAVO COLLINS

not tamper with or disable machine or equipment guarding while operating under normal conditions." machines have been assessed and adequate guarding is available to protect personnel from hazards.

Removing a machine guard from a machine during service, without having performed lockout/tagout on the machine. Operating a machine where you or someone else has disabled or removed the required guarding.

#### How are Cardinal Rules enforced for contractors?

Collins Aerospace has a formal written program for contractor safety. In this program guidelines are described for contractor discipline resulting from violations of safety requirements. The UTC EH&S Cardinal Rules are enforced as "Serious Near Miss" incidents. The following guidance will be used for contractor discipline for EH&S Cardinal Rule violations:

Violation of Contractor EH&S Guidelines which results in:	1 <sub>st</sub> Violation	Individual contractor employee(s) banned from Collins site; letter to contractor issued by Purchasing outlining violation and requiring written response from contractor describing corrective action implemented.
<ul><li>A Reportable Spill</li><li>A Serious Injury or Fatality</li></ul>	2 <sub>nd</sub> Violation	Contractor banned for 1 year by Purchasing. Reinstatement only after demonstrating significant improvement in EH&S program.
A Serious Near Miss	3 <sub>rd</sub> Violation	Contractor permanently banned from access to any Collins Aerospace site.

Please contact your Collins Aerospace Contractor Coordinator for any questions regarding Cardinal Rules before starting work that may involve Cardinal Rule risks.