



Job Safety Analysis (JSA)

INTRODUCTION

Nearly every task we attempt has associated risks or hazards. In an attempt to minimize these risks most individuals make a conscious effort to be aware of situations around them that may cause harm.

Job safety analysis (JSA)

Job safety analyses focus on the relationship between a worker, the task to be performed, the work environment, and the equipment and tools related to the task. The JSA process may seem simple but the benefits of performing it correctly are exponential, such as lowering the number of injuries or incidents that may occur. In order to correctly perform a JSA the following three steps must be completed.

- Identify the steps needed to complete the task
- Pinpoint possible hazards that may occur in each step
- Eliminate or reduce the severity of the hazards that may occur

Actual Near Miss

A worker was grinding on deck wearing most of the recommended PPE except for the proper eye protection. If the worker had completed a JSA prior to performing the task, he would have known that eye protection was recommended as a control against eye hazards. Once a JSA is completed, individuals involved in the task must use all controls recommended to prevent injury, including all PPE that applies for that task.

JSA hazard types

When performing a JSA it is important to identify hazards that may cause harm or injury to individuals involved in the task. When identifying hazards the following list may help to pinpoint issues.

- Is there a danger of striking or being struck by an object?
- Is there a danger of being caught in, by, or between objects?
- Is there danger of slipping, tripping, or falling?
- Can pushing, pulling, lifting, bending or twisting cause strain?
- Is there danger of harm to eyes, hands, feet or other parts of a worker's body?

There are a variety of hazards that may be presented and can be categorized as: chemical, physical, biological, and ergonomic. The table below provides example hazards associated with each category.

| Chemical Hazards | Physical Hazards |
|---|---|
| <ul style="list-style-type: none"> • Inhalation • Skin contact • Absorption • Injection • Ingestion | <ul style="list-style-type: none"> • Electrical • Fire/Explosion • Noise • Slips/falls • Struck by/against • Radiation • Thermal stress • Pinch points |
| Ergonomic Hazards | Biological Hazards |
| <ul style="list-style-type: none"> • Repetition • Forceful exertions • Awkward postures • Contact stress • Vibration • Work area design • Tool or equipment design | <ul style="list-style-type: none"> • Blood borne pathogens • Brucellosis • Building-related illness • Legionnaires' disease • Mold • Plant & insect poisons • Tuberculosis • Water (grey & black) & waste water |