

## Work scope details:

**Title:** BL 13 Move HV Box to Safe Configuration

**Work Scope Summary:** This work involves sliding the BL 13 high voltage (HV) box to a safe configuration to facilitate inspection. The task requires careful handling to avoid potential hazards associated with elevated work, manual material handling, and ergonomic conditions.

### Key Work Scope Components:

- Sliding the HV box to a designated safe location
- Use of fall prevention systems and handrails
- Manual handling of the HV box
- Potential use of lifting aids or team lifting techniques
- Conducting a pre-job briefing to ensure all safety measures are understood

## Relevant previous events and lessons learned:

Event Title	Event Summary	Lessons Learned	Reference Link
High Voltage Equipment Handling Incident	An employee was injured while moving high voltage equipment due to inadequate communication and improper lifting techniques.	Emphasized the need for clear communication and proper lifting training. Team lifting should be mandatory for heavy or awkward loads.	<a href="#">OSHA Incident Report</a>
Fall from Height During Equipment Inspection	A technician fell while inspecting equipment at height due to a lack of fall protection measures.	Highlighted the importance of using fall protection systems and ensuring they are properly set up before work begins.	<a href="#">OSHA Fall Protection</a>
Manual Handling Injury	A worker sustained a back injury while manually lifting a heavy object without proper technique.	Reinforced the necessity of training workers in safe lifting techniques and the use of mechanical aids to reduce manual handling risks.	<a href="#">NIOSH Manual Handling</a>
Electrical Equipment Safety Violation	An incident occurred where an employee was exposed to live electrical components during maintenance due to failure to follow lockout/tagout procedures.	Stressed the critical need for strict adherence to lockout/tagout protocols when working with electrical equipment.	<a href="#">OSHA Lock out/Tagout</a>
Ergonomic Assessment Failure	An ergonomic assessment was not conducted prior to a task, leading to repetitive strain injuries among workers.	Underlined the importance of performing ergonomic evaluations to identify and mitigate risks associated with repetitive tasks.	<a href="#">OSHA Ergonomics</a>

## Missing Hazards:

Hazard	Missing or Inadequate Mitigation in Current Work Control Document	Recommended Mitigation for Revision	Reference Link	SBMS Link
Elevated Work	Not addressed	Ensure that fall protection systems are in place and that all workers are trained in their use.	<a href="#">OSHA Fall Protection</a>	N/A
Manual Material Handling	Inadequate guidance on weight limits	Specify maximum weight limits for manual handling and require the use of lifting aids for loads exceeding these limits.	<a href="#">NIOSH Lifting Guidelines</a>	N/A
Ergonomic Risks	Not adequately assessed	Conduct a thorough ergonomic assessment prior to the task and implement recommendations to minimize strain.	<a href="#">OSHA Ergonomics</a>	N/A
Electrical Hazards	Not addressed	Implement lockout/tagout procedures before moving the HV box to prevent accidental energization.	<a href="#">OSHA Lock out/Tagout</a>	N/A
Confined Spaces	Not addressed	Assess the work area for confined space hazards and ensure proper ventilation and monitoring.	<a href="#">OSHA Confined Spaces</a>	N/A
Communication Failures	Not addressed	Establish clear communication protocols among team members, especially during lifting operations.	N/A	N/A
Time Pressures	Not addressed	Implement a work schedule that allows adequate time for task completion without rushing.	N/A	N/A
Distractive Environment	Not addressed	Conduct a site assessment to identify and mitigate potential distractions in the work area.	N/A	N/A
Tool Availability	Not adequately addressed	Ensure all necessary tools and equipment are readily available and in good working condition before starting work.	N/A	N/A
Overconfidence	Not addressed	Conduct a safety briefing emphasizing the importance of adhering to safety protocols and recognizing personal limitations.	N/A	N/A

Hazard	Missing or Inadequate Mitigation in Current Work Control Document	Recommended Mitigation for Revision	Reference Link	SBMS Link
Team Lifting	Not adequately addressed	Require team lifting for all heavy loads and provide training on proper techniques.	N/A	N/A
Post-Work Inspection	Not addressed	Implement a post-work inspection to ensure the area is safe and that no hazards remain after the task is completed.	N/A	N/A

### Failure mode analysis:

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Fall Protection System	Handrail not set up properly	Risk of fall from height	Inadequate pre-job checks	Conduct a pre-job inspection to verify all safety measures are in place.
Manual Handling Guidelines	Weight limits exceeded	Potential for injury	Lack of adherence to guidelines	Reinforce training on manual handling and enforce weight limits strictly.
Lockout/Tagout Procedures	Procedures not followed	Risk of electrical shock	Poor communication or training	Regularly train workers on lockout/tagout procedures and conduct audits.
Ergonomic Assessments	Assessments not performed	Increased risk of injury	Oversight in planning	Make ergonomic assessments a mandatory part of the planning process.

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Communication Protocols	Miscommunication among team	Increased risk of accidents	Lack of established protocols	Develop and enforce clear communication protocols for all tasks.
Tool Availability	Tools not available or defective	Delays and increased risk	Poor inventory management	Implement a tool check system to ensure availability and functionality.
Team Lifting Training	Lack of training	Increased risk of injury	Inadequate training programs	Provide mandatory team lifting training for all workers involved in heavy lifting.
Post-Work Inspections	Inspections not conducted	Potential for overlooked hazards	Lack of established procedure	Create a checklist for post-work inspections to ensure thoroughness.
Work Scheduling	Rushed work due to time pressures	Increased risk of accidents	Poor planning	Allow adequate time for tasks and avoid scheduling conflicts.
Environmental Assessments	Work area not assessed for distractions	Increased risk of accidents	Oversight in planning	Conduct environmental assessments to identify and mitigate distractions.
Emergency Response Procedures	Procedures not clear	Delayed response in emergencies	Lack of training	Regularly review and practice emergency response procedures with all workers.

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Worker Feedback Mechanism	Feedback not solicited	Missed opportunities for improvement	Lack of established process	Implement a formal feedback mechanism to capture worker insights post-task.
Equipment Maintenance	Equipment not properly maintained	Increased risk of failure	Inadequate maintenance schedule	Establish a regular maintenance schedule for all equipment used in the task.
Safety Briefings	Briefings not conducted	Increased risk of accidents	Oversight in planning	Make safety briefings mandatory before starting any work activities.