

**Work scope details:**

Title: BL14B Computer Rack Removal

Work Scope Summary: - The task involves the removal of a computer rack from location BL14B and its relocation to the southside laydown area of building 8700.

Key Work Scope Components: - Removal of the computer rack from BL14B - Transportation of the computer rack - Relocation to the southside laydown area of building 8700

**Relevant previous events and lessons learned:**

| Event Title  | Event Summary  | Lessons Learned   | Reference Link       |
|--|--|---|----------------------|
| Remove Components from Computer Server Racks Prior to Movement | Workers were moving computer server racks fully loaded with internal components weighing approximately 1000 lbs. The racks veered toward a door, and a worker's hand was pinned, resulting in an OSHA recordable injury. | Removing all internal server components from server racks prior to movement reduces the overall weight, making it easier to move and reducing the risk of injury. | <a href="#">Link</a> |

**Missing Hazards:**

| Hazard                            | Missing or Inadequate Mitigation in Current Work Control Document | Recommended Mitigation for Revision   | Reference link                           | SBMS Link            |
|-----------------------------------|---|---|--|----------------------|
| Ergonomic Conditions              | No specific mention of ergonomic assessments or interventions     | Conduct ergonomic assessments, provide special tools, stretch breaks, and worker rotation                       | N/A                                      | <a href="#">Link</a> |
| Traffic and Environmental Hazards | No mention of traffic and environmental hazard controls           | Implement traffic control measures, provide training for low visibility conditions, and ensure proper equipment | <a href="#">Traffic Safety Warehouse</a> | <a href="#">Link</a> |
| Loaded Computer Racks             | No mention of computer rack safety                                | Conduct safety compliance reviews for racking systems and ensure proper load management                         | <a href="#">OSHA</a>                     | <a href="#">Link</a> |
| Improper Use of Equipment         | No specific guidelines for improper equipment use                 | Develop guidelines for equipment use, ensure training and compliance with safety standards                      | <a href="#">Playground Professionals</a> | <a href="#">Link</a> |

## Failure mode analysis:

| Current control   | Failure mode of the control                | Effect of Failure                           | Cause of Failure                          | Recommended action   |
|---|--|---|---|--|
| Written permits for the work activity                                 | Permit not obtained or expired             | Legal non-compliance, work stoppage         | Oversight, lack of communication          | Implement a permit tracking system, regular audits                 |
| Personal Protective Equipment (PPE)                                   | PPE not used or inadequate                 | Injury to personnel                         | Lack of awareness, insufficient supply    | Conduct PPE training, ensure adequate supply and accessibility     |
| Work instructions & safety procedures                                 | Instructions not followed                  | Increased risk of accidents                 | Inadequate training, unclear instructions | Regular training sessions, simplify and clarify instructions       |
| ORNL subject area requirements  | Non-compliance with specific requirements  | Safety hazards, regulatory issues           | Lack of understanding, oversight          | Regular compliance checks, detailed requirement briefings          |
| Discuss group/individual responsibilities                             | Miscommunication of roles                  | Task inefficiency, increased risk of errors | Poor communication, unclear roles         | Pre-job briefings, clear role assignments                          |
| Availability/location of materials, tools                             | Tools/materials not available or misplaced | Delays, potential safety hazards            | Poor inventory management                 | Implement inventory management system, pre-checks                  |
| Response if work cannot be performed as planned                       | Inadequate contingency planning            | Delays, increased risk of accidents         | Lack of contingency planning              | Develop and communicate contingency plans                          |
| Potential error traps (e.g., time pressures, distractive environment) | Unidentified error traps                   | Increased likelihood of errors              | Inadequate risk assessment                | Conduct thorough risk assessments, implement mitigation strategies |
| Stop Work: Unsafe act or condition                                    | Failure to stop work when unsafe           | Accidents, injuries                         | Lack of empowerment, unclear criteria     | Empower workers to stop work, clear stop-work criteria             |
| Emergency Response: Egress paths                                      | Inadequate emergency response plan         | Increased risk during emergencies           | Poor planning, lack of drills             | Regular emergency drills, clear egress path markings               |
| Hoisting and Rigging services   | Improper use or failure of equipment       | Equipment damage, injury                    | Inadequate training, equipment failure    | Regular equipment maintenance, certified operator training         |

|                          |                              |                          |  |   |
|--------------------------|------------------------------|--------------------------|--|---|
| Ergonomic Conditions     | Poor ergonomic practices     | Musculoskeletal injuries | Lack of ergonomic assessment           | Conduct ergonomic assessments, provide ergonomic training |
| Manual Material Handling | Improper handling techniques | Injury, equipment damage | Lack of training, inadequate equipment | Provide handling aids, conduct training sessions          |