A maintenance mechanic was killed on a Herr Voss and Froiling Coil Slitting machine. The victim was working overtime with two other mechanics performing maintenance on the overhead ‘threader table’ with the electrical power isolated from its source. The victim attempted to remove and rotate the threading table’s electrical drive motor (with an internal brake) 90-degrees. The motor’s junction box had been hitting the slitter’s platform railing which was previously installed by another crew. While performing this function, the overhead carriage, weighing approximately 9,000 pounds, unexpectedly slid downward at an angle (due to gravity) pinning him at the railing of the platform causing fatal traumatic head injuries.

The mechanics performing maintenance were not effectively trained on all applicable energy sources, including gravity, and the means and methods of isolating and/or controlling energy. The mechanics were exposed to a gravity energy source that was not identified in the Energy Isolation Checklist (EIC), nor how to secure the equipment. Moreover, a periodic inspection had not been performed on the EIC to check for any inadequacies and more importantly, correct non-compliance of energy control procedures and Lock-out/Tagout/Verify (LOTOV) program.

**Recommendations to Prevent Recurrence:**

- Conduct a hazard analysis with worker participation that focuses on the relationship between the workers, the task, the tools and environment. Consider the entire machine operation process, the modes of operation, individual activities associated with the operation, servicing and maintenance activities. The results from the analysis can then be used as a basis to design an overall hazardous energy control program/procedures/training and periodic inspections of LOTOV.

- Develop, document and utilize effective LOTOV energy control program/procedures/training for the control of potentially hazardous energy (including gravity) when servicing/maintenance work is being performed on equipment.

- Provide effective education/training to employees (including non-routine tasks and new employees being trained by competent employees).

- Conduct Comprehensive Job Safety Analysis before non-routine maintenance and learn from post-task debriefing.

- Use of chains, blocks, clamps, pins and leveling of equipment can prevent unwanted movement and to provide safer access to machine areas.

- Contact machine manufacturers and retrofit, if applicable, motors and gearboxes interface to achieve the proper orientation.