Central Michigan University
Overhead & Gantry Cranes, Underhung Cranes and Monorail Systems, and Sling and Hoist Safety Guidelines

Purpose
Many types of cranes, hoists, and rigging devices are used at Central Michigan University (CMU) for lifting and moving materials. CMU’s policy is to maintain a safe workplace for its employees; therefore, it cannot be overemphasized that only qualified and licensed individuals shall operate these devices. The safety rules and guidance in this Guideline apply to all operations at CMU that involve the use of cranes, hoists, chain falls and slings, and to all CMU employees, supplemental labor, and subcontractor personnel who use such devices.

Definitions
Angle of Loading: The inclination of a leg or branch of a sling, measured from the horizontal or vertical plane of the load.

Basket Hitch: A sling configuration whereby the sling is passed under the load and has both ends, end attachments, eyes, or handles on the hook or a single master link.

Brake: A device used for retarding or stopping motion by friction or power means.

Bridge: That part of a crane which consists of girders, trucks, end ties, footwalks, and the driving mechanism to carry the trolley or trolleys.

Bridle Wire Rope Sling: A sling composed of multiple wire rope legs, with the top ends gathered in a fitting that goes over the lifting hook.

Bumper: An energy-absorbing device for reducing impact when a moving crane or trolley reaches the end of its permitted travel, or when two moving cranes or trolleys come in contact.

Chain Fall: A manually powered hoisting device that employs a load bearing chain and an endless hand chain to raise or lower loads.

Choker Hitch: A sling configuration with one end of the sling passing under the load and through an end attachment, handle, or eye on the other end of the sling.

Competent Person: A person who has the necessary experience of the crane and equipment used in the lifting operation to carry out the function satisfactorily, who is capable of identifying an existing or potential hazard in surroundings, or under working conditions that are hazardous or dangerous to an employee, and who has the authority and knowledge to take prompt corrective measures to eliminate the hazards.

Crane: A top running overhead or gantry crane.

Designated: A person selected or assigned by the employer or the employer’s representative as being qualified to perform specific duties.

Floor Operated Crane: A top running overhead crane that is controlled by an operator on a floor or independent platform.

Frequent Inspection: A visual examination by the operator or other designated personnel, with written records required.

Gantry Crane: A crane similar to an overhead crane, except that the bridge for carrying the trolley or trolleys is rigidly supported by one or more legs running on a fixed rail or other runway.

Hitch: A sling configuration whereby the sling is fastened to an object or load, either directly to it or around it.
**Hoist:** A system of power-driven drums, gears, cables, chains, or hydraulic cylinders capable of lifting and lowering a load.

**Jib Crane:** A crane with a horizontal arm (jib) designed to rotate around a vertical member.

**Link:** A single ring of a chain

**Load:** The total superimposed weight on a load block or hook.

**Load Block:** The assembly of a hook and shackle, swivel bearing, sheaves, pins, and frame, suspended by the hoisting ropes or chain.

**Main Switch:** A switch on a crane controlling the entire power supply to the crane, except that a magnet and convenience outlet circuit may bypass the main switch.

**Master Coupling Link:** Alloy steel welded coupling link used as an intermediate link to join alloy steel chain to master links.

**Master Link (or Gathering Ring):** A forged or welded steel link used to support all members (legs) of an alloy steel chain sling or wire rope sling.

**Mechanical Coupling Link:** A non-welded, mechanically closed steel link used to attach master links and hooks to alloy steel chain.

**Monorail System:** An overhead track from which hoisting equipment travels to transport loads and includes curves, switches, transfer devices, drop sections, hangers, and related equipment.

**Overhead Crane:** A top running crane that has a moveable bridge carrying a moveable or fixed hoisting mechanism for lifting and lowering, moving horizontally and traveling on an overhead fixed runway.

**Periodic Inspection:** The inspection of the equipment by a designated person, with written records of conditions kept.

**Power Operated Crane:** A crane that has its mechanism driven by electric, air, hydraulic, or internal combustion means.

**Qualified Person:** A person who, through attainment of a recognized degree or certificate of professional standing or by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.

**Rail Stop:** A device attached to a rail to stop the movement of a crane beyond a fixed point.

**Rated Capacity:** The maximum working load limit of a sling and its associated components.

**Rated Load:** The maximum load for which a crane or individual hoist is designed and built by the manufacturer and shown on the equipment nameplate or nameplates.

**Reach:** The effective length of an alloy steel chain sling, measured from the top bearing surface of the upper terminal component to the bottom bearing surface of the lower terminal component.

**Rigger:** An employee who prepares heavy equipment or loads of materials for lifting.

**Rope:** Wire rope, unless otherwise specified.

**Running Sheave:** A sheave that rotates as the load block is raised or lowered.

**Runway:** An assembly of rails, beams, girders, brackets, and framework on which a crane or trolley travels.

**Side Pull:** To pull a load with a hoist, chain or cable other than vertically.

**Sling:** An assembly which connects the load to the material handling equipment for the purpose of lifting or hoisting.
**Strand Laid Rope:** A wire rope made with strands, usually six or eight, wrapped around a fiber core, wire strand core, or independent wire rope core.

**Swaged Socket:** A fitting into which wire rope is inserted and attached by cold forming.

**Trolley:** A unit that travels on the bridge rails and carries the hoisting mechanism.

**Trolley Travel:** The trolley movement at right angles to the crane runway.

**Underhung Crane:** A crane with a traveling bridge which is suspended under its runway track system. A hoist trolley may be underhung or top running.

**Vertical Hitch:** A method of supporting a load by a single, vertical part or leg of the sling.

**Wall Crane:** A crane which has a jib with or without a trolley and which is supported from a sidewall or line of columns of a building. It is a traveling type and operates on a runway attached to the sidewall or columns.

**Adoption of Standards by Reference**

ASME/ANSI B30.2, "Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)."

ASME/ANSI B30.9, "Slings."

ASME/ANSI B30.11, "Monorails and Underhung Cranes."

ASME/ANSI B30.17, "Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)."


**References**

ASME/ANSI B30.10, "Hooks."

ASME/ANSI B30.16, "Overhead Hoists (Underhung)."

ASME/ANSI B30.21, "Manually Lever Operated Hoists."


*Code of Federal Regulation*, Title 29, Part 1926.550, "Cranes and Derricks."

Mechanical Engineering Department *Design Safety Standards*, Chapter 2.2, "Lifting equipment."

CMAA Specification No. 70, *Specifications for Electric Overhead Traveling Cranes."


NFPA 70, Article 610, *Cranes and Hoists"

**Related Documents**

[MIOSHA Part 18 Overhead and Gantry Cranes](#)

[MIOSHA Part 20 Underhung Cranes and Monorail Systems](#)

[MIOSHA Part 38 Hand and Portable Powered Tools](#)

[MIOSHA Part 49 Slings](#)
Responsibilities

Deans, Directors, and Department Heads are responsible to:
- Designate and empower supervisors who will be responsible for their employees who operate cranes, hoists, and other equipment related to this Guideline.
- Ensure available funds for inspections, maintenance, and repairs of equipment.
- Actively support this Guideline within individual units.
- Ensure an environment where all staff, student employees, and faculty are encouraged to follow this Guideline.

Supervisors

- Will collaborate with Environmental Health & Safety to ensure employees are trained, permitted, and comply with the manufacturer's specifications and limitations applicable to the equipment under their jurisdiction.
- Will ensure that the cranes/hoists/slings and related equipment are maintained in a condition that will not endanger an operator or other employees.
- Must ensure that daily/pre-use inspections are conducted and written documentation kept on file.
- Must ensure that the manual provided by the crane manufacturer is readily accessible for the operator's reference at the work site.

Crane and Hoist Operators are responsible for:
- Attending all training required under this Guideline.
- Operating hoisting equipment safely.
- Conducting daily inspection/functional tests prior to using the equipment.
- Reporting any unsafe crane/hoist conditions to their supervisor.
- Selecting and using rigging equipment appropriately.
- Having a valid operator's permit on their person while operating cranes or hoists.

Environmental Health & Safety

- Will ensure that inspections of all CMU cranes and hoists are done according to applicable regulations. CMU cranes are used less than one-hundred hours per year; therefore, periodic annual inspections will be conducted by a third party contractor.
- Will maintain written records of inspections and tests, and provide copies of all inspections and test results to facility supervisors, managers, and academic faculty and staff that have cranes and hoists on file.
- Will ensure that training is done for all crane & hoist operators.
- Will issue permits to crane and hoist operators.
- Will periodically verify daily/pre-use inspection reports.
- Interpret crane and hoist safety regulations and standards.

Safe Operating Requirements

All workers who use any CMU crane or hoist shall have an operator's permit. The University issues permits for authorized employees who have been specifically trained in crane and hoist operations and equipment safety. These permits are valid for three years on CMU owned equipment only.
Crane and Hoist Safety Design Requirements

Following are the design requirements for cranes and hoists and their components:

- The design of all commercial cranes and hoists shall comply with the requirements of all applicable regulations.
- All crane and hoist hooks shall have safety latches.
- Hooks shall not be painted (or re-painted) if the paint previously applied by the manufacturer is worn.
- Crane pendants shall have an electrical disconnect switch or button to open the main-line control circuit.
- Cranes and hoists shall have a main electrical disconnect switch. This switch shall be in a separate box that is labeled with lockout capability.
- Crane bridges and hoist monorails shall be labeled on both sides with the maximum capacity.
- Each hoist-hook block shall be labeled with the maximum hook capacity.
- A device such as an upper-limit switch or slip clutch shall be installed on all building cranes and hoists. A lower-limit switch may be required when there is insufficient hoist rope on the drum to reach the lowest point.
- All newly installed cranes and hoists, or those that have been extensively repaired or rebuilt structurally, shall be load tested at 125% capacity prior to being placed into service.
- If an overload device is installed, a load test to the adjusted setting is required.

General Safety Rules

Operators shall comply with the following rules while operating the cranes and hoists:

- Do not engage in any practice that will divert your attention while operating the crane.
- Respond to signals only from the person who is directing the lift, or any appointed signal person. Obey a stop signal at all times, no matter who gives it.
- Do not lower a load below a point where less than two full wraps of wire rope remain on the hoisting drum.
- Do not move a load over people. People shall not be placed in jeopardy by being under a suspended load. Also, do not work under a suspended load unless the load is supported by blocks, jacks, or a solid footing that will safely support the entire weight. Have a crane or hoist operator remain at the controls or lock open and tag the main electrical disconnect switch.
- Hard hats and safety eyewear are required when operating a crane/hoist with the load at five feet or greater.
- Ensure that the rated load capacity of a crane's bridge, individual hoist, or any sling or fitting is not exceeded. Know the weight of the object being lifted. Check that all controls are in the OFF position before closing the main-line disconnect switch.
- A chain fall or hoist and puller shall be secured to an anchorage and the load attached to the chain fall or hoist and puller in a manner which will prevent inadvertent disengagement.
- A hoist and puller lever handle shall not be operated with an extension handle except as furnished by the manufacturer.
- Avoid side pulls. These can cause the hoist rope to slip out of the drum groove, damaging the rope or destabilizing the crane or hoist.
- To prevent shock loading, avoid sudden stops or starts. Shock loading can occur when a suspended load is accelerated or decelerated, and can overload the crane or hoist. When completing an upward or downward motion, ease the load slowly to a stop.
Operation Rules

Pre-operational Test
At the start of each work shift, operators shall inspect the crane and hoist according to the checklist in Appendix A and maintain records of these inspections.

Moving a Load
- Center the hook over the load to keep the cables from slipping out of the drum grooves and overlapping, and to prevent the load from swinging when it is lifted. Inspect the drum to verify that the cable is in the grooves.
- Use a tag line when loads must traverse long distances or must otherwise be controlled. Manila rope may be used for tag lines.
- Plan and check the travel path to avoid personnel and obstructions.
- Lift the load only high enough to clear the tallest obstruction in the travel path.
- Start and stop slowly.
- Land the load when the move is finished. Choose a safe landing.
- *Never* leave suspended loads unattended. In an emergency where the crane or hoist has become inoperative, if a load must be left suspended, barricade and post signs in the surrounding area, under the load, and on all four sides. Lock open and tag the crane or hoist's main electrical disconnect switch.

Parking a Crane or Hoist
- Remove all slings and accessories from the hook. Return the rigging device to the designated storage racks.
- Raise the hook at least 2.1 m (7 ft) above the floor.
- Store the pendant away from aisles and work areas, or raise it at least 2.1 m (7 ft) above the floor.
- Place the emergency stop switch (or push button) in the OFF position.

Rigging

General Rigging Safety Requirements
Only select rigging equipment that is in good condition. All rigging equipment shall be inspected annually; defective equipment is to be removed from service and destroyed to prevent inadvertent reuse. The load capacity limits shall be stamped or affixed to all rigging components.

A sling shall not be shortened with bolts, knots, or other makeshift devices. The following types of slings shall be rejected or destroyed:
- Nylon slings with:
  - Abnormal wear.
  - Torn stitching.
  - Broken or cut fibers.
  - Discoloration or deterioration.
- Wire-rope slings with:
  - Kinking, crushing, bird caging, or other distortions.
  - Evidence of heat damage.
  - Cracks, deformation, or worn end attachments.
- Six randomly broken wires in a single rope lay.
- Three broken wires in one strand of rope.
- Hooks opened more than 15% at the throat.
- Hooks twisted sideways more than 10° from the plane of the unbent hook.
- Alloy steel chain slings with:
  - Cracked, bent or elongated links or components.
  - Cracked hooks.
  - Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.

**Rigging a Load**

Do the following when rigging a load:

- Determine the weight of the load. Do not guess.
- Determine the center of gravity and balance the load before moving it.
- Determine the proper size for slings and components.
- Do not use manila rope for rigging.
- Make sure that shackle pins and shouldered eye bolts are installed in accordance with the manufacturer's recommendations.
- An eye in a wire rope sling shall not be formed by using a knot or a wire rope clip.
- Use swivel hoist rings as a preferred substitute for eye bolts wherever possible.
- Pad sharp edges to protect slings. Remember that machinery foundations or angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load. Wood, tire rubber, or other pliable materials may be suitable for padding.
- Do not use slings, eye bolts, shackles, or hooks that have been cut, welded, or brazed.
- Install wire-rope clips with the base only on the live end and the U-bolt only on the dead (short) end. Follow the manufacturer's recommendations for the spacing for each specific wire size.
- Initially lift the load only a few inches to test the rigging and balance.

**Crane Overloading**

- Cranes or hoists shall not be loaded beyond their rated capacity for normal operations. Any crane or hoist suspected of having been overloaded shall be removed from service by locking open and tagging the main disconnect switch. Additionally, overloaded cranes shall be inspected, repaired, load tested, and approved for use before being returned to service.

**Working at Heights on Cranes or Hoists**

- Anyone conducting maintenance or repair on cranes or hoists at heights greater than four feet shall use fall protection. Fall protection includes safety harnesses that are fitted with a lifeline and securely attached to an anchor point, or standard guardrails.

**Hand Signals**

Signals to the operator shall be in accordance with the standard hand signals unless voice communications equipment (telephone, radio, or equivalent) is used. Signals shall be discernible or audible at all times. Some special operations may require addition to or modification of the basic signals. For all such cases, these special signals shall be agreed upon and thoroughly understood by both the person giving the signals and the operator, and shall not be in conflict with the standard signals.
**Inspection, Maintenance, and Testing**

All tests and inspections shall be conducted in accordance with the manufacturer's recommendations.

**Annual (Periodic) Inspections (based on less than 100 hours of use/year, Class A1 and A2)**

The Environmental Health & Safety Department shall schedule and supervise annual inspections of all cranes and hoists unless a department has an agreement with another contractor. Records of those inspections will be forwarded by the supervisor to the EH&S department.

- Hoisting and lowering mechanisms.
- Trolley travel or monorail travel.
- Bridge travel.
- Limit switches and locking and safety devices.
- Structural members.
- Bolts or rivets.
- Sheaves and drums.
- Parts such as pins, bearings, shafts, gears, rollers, locking devices, and clamping devices.
- Brake system parts, linings, pawls, and ratchets.
- Load, wind, and other indicators over their full range.
- Chain-drive sprockets.
- Crane and hoist hooks.
- Electrical apparatus such as controller contractors, limit switches, and push button stations.
- Wire rope.
- Hoist chains.

**Load Testing**

- Newly installed cranes and hoists shall be load tested at 125% of the rated capacity by designated personnel.
- Slings shall have appropriate test data when purchased. It is the responsibility of the purchaser to ensure that the appropriate test data are obtained and maintained.
- Re-rated cranes and hoists shall be load tested to 125% of the new capacity if the new rating is greater than the previous rated capacity.
- Fixed cranes or hoists that have had major modifications or repair shall be load tested to 125% of the rated capacity.
- Cranes and hoists that have been overloaded shall be inspected prior to being returned to service.
- All cranes and hoists with a capacity greater than 2722 kg (3 tons) should be load tested every four years to 125% of the rated capacity. Cranes and hoists with a lesser capacity should be load tested every eight years to 125% of the rated capacity.
- All mobile hoists shall be load tested at intervals to be determined by the inspector.

**Records**

Environmental Health & Safety shall maintain copies or the original records of inspections for all cranes, hoist and rigging equipment. Supervisors should maintain copies, also, in order to produce them upon request from a regulatory agency representative.
APPENDIX A

DAILY PREUSE INSPECTION CHECKLIST
<table>
<thead>
<tr>
<th>INSPECTION ITEM</th>
<th>DESCRIPTION OF INSPECTION CHECKPOINTS</th>
<th>PASS</th>
<th>FAIL</th>
<th>DATE</th>
<th>OPERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tagged Crane or Hoist</td>
<td>Check that crane or hoist is not tagged “out of order”</td>
<td></td>
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</tr>
<tr>
<td>Control Devices</td>
<td>Test run that all motors agree with control device markings.</td>
<td></td>
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<tr>
<td>Brakes</td>
<td>Check that all motions do not have excessive drift and that stopping distances are normal.</td>
<td></td>
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</tr>
<tr>
<td>Hook</td>
<td>Check for damage, cracks, nicks, gouges, deformations of the throat opening, wear on saddle or load bearing point, and twist. Refer to the manual furnished by the original manufacturer of the crane.</td>
<td></td>
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</tr>
<tr>
<td>Hook Latch</td>
<td>If a hook latch is required, check for proper operation.</td>
<td></td>
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</tr>
<tr>
<td>Wire Rope</td>
<td>Check for broken wires, broken strands, kinks, and any deformation or damage to the rope structure.</td>
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<tr>
<td>Reieving</td>
<td>Check that the wire rope is properly reeved and that rope parts are not twisted about each other.</td>
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</tr>
<tr>
<td>Limit Switches</td>
<td>Check that the upper limit device stops lifting motion of the hoist load block before striking any part of the hoist or crane.</td>
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<tr>
<td>Oil Leakage</td>
<td>Check for any sign of oil leakage on the crane and on the floor area beneath the crane.</td>
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</tr>
<tr>
<td>Unusual Sounds</td>
<td>Check for any unusual sounds from the crane or hoist mechanism while operating the crane and hoist.</td>
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<tr>
<td>Warning and Safety Labels</td>
<td>Check that warning and other safety labels are not missing and that they are legible</td>
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</tr>
<tr>
<td>Housekeeping and Lighting</td>
<td>Check area for accumulation of material, trip or slip hazards, and poor lighting</td>
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</tbody>
</table>
### APPENDIX B

#### EXAMPLES OF CRANES AND HOISTS

<table>
<thead>
<tr>
<th>Crane Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Jib Crane</strong></td>
<td>A type of crane where a horizontal member (jib or boom), supporting a moveable hoist, is fixed to a wall or to a floor-mounted pillar.</td>
</tr>
<tr>
<td><strong>Wall Crane</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Gantry Crane</strong></td>
<td>A type of crane has a hoist which typically runs horizontally along rail/s.</td>
</tr>
<tr>
<td><strong>Semi Gantry Crane</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Monorail</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Switching Monorail</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Bridge Crane</strong></td>
<td></td>
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<td>------------------</td>
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</tr>
<tr>
<td>A load lifting system consisting of a hoist which moves laterally on a beam, girder, or bridge which in turn moves longitudinally on a runway made of beams and rails. Loads can be moved to any point within a rectangle formed by the bridge span and runway length.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mobile Cranes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARE NOT COVERED IN THIS PROGRAM</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Winches</strong></th>
</tr>
</thead>
</table>
| **ARE NOT COVERED IN THIS PROGRAM**  
Follow the manufacturer's recommendations |

| **Electric Chain Hoist** |

<table>
<thead>
<tr>
<th><strong>Manually operated hoists</strong></th>
</tr>
</thead>
</table>
| **Lever Hoist**  
**Chain Fall Hoist**  
**Come Along Hoist** |
<table>
<thead>
<tr>
<th><strong>Pneumatic Chain Hoist</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Pneumatic Chain Hoist" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Electric Wire Rope Hoist</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image2.png" alt="Electric Wire Rope Hoist" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Pneumatic Wire Rope Hoist</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Pneumatic Wire Rope Hoist" /></td>
</tr>
</tbody>
</table>

| **Engine Hoists**
| ARE NOT COVERED IN THIS PROGRAM |
| Follow the manufacturer’s recommendations |
| ![Engine Hoists](image4.png) |
## APPENDIX C

### EXAMPLES OF SLINGS

<table>
<thead>
<tr>
<th><img src="image1.png" alt="Image" /></th>
<th>Alloy Steel Chain</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>Wire Rope</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>Metal Mesh</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>Natural and Synthetic Fiber Rope</td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>Synthetic Web</td>
</tr>
</tbody>
</table>
# APPENDIX D

## HAND SIGNALS

### TABLE 1

**STANDARD HAND SIGNALS FOR CONTROLLING OVERHEAD AND GANTRY CRANES**

<table>
<thead>
<tr>
<th>Signal</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HOIST.</strong></td>
<td>With forearm vertical, forefinger pointing up, move hand in small horizontal circle.</td>
</tr>
<tr>
<td><strong>LOWER.</strong></td>
<td>With arm extended downward, forefinger pointing down, move hand in small horizontal circles.</td>
</tr>
<tr>
<td><strong>BRIDGE TRAVEL.</strong></td>
<td>Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.</td>
</tr>
<tr>
<td><strong>TROLLEY TRAVEL.</strong></td>
<td>Palm up, fingers closed, thumb pointing in direction of motion, jerk hand horizontally.</td>
</tr>
<tr>
<td><strong>STOP.</strong></td>
<td>Arm extended, palm down, hold position rigidly.</td>
</tr>
<tr>
<td><strong>EMERGENCY STOP.</strong></td>
<td>Arm extended, palm down, move hand rapidly right and left.</td>
</tr>
<tr>
<td><strong>MULTIPLE TROLLEYS.</strong></td>
<td><strong>MOVE SLOWLY.</strong></td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Hold up one finger for block marked “1” and two fingers for block marked “2”. Regular signals follow.</td>
<td>Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal. (Hoist slowly shown as example.)</td>
</tr>
</tbody>
</table>