

## **2600SEG124 SAFETY STANDARD FOR CRANE OPERATIONS**

### **1.0 PURPOSE**

To establish the safety requirements and instructions for the operation, care, and handling of cranes within areas under Panama Canal Authority (ACP) jurisdiction.

### **2.0 BACKGROUND INFORMATION**

ACP Safety and Occupational Health Manual, Section 7, Paragraph 7.1, Cranes, Revision January 2000.

### **3.0 SCOPE**

This standard applies to all ACP workers, contractors, and third parties performing work or activities with cranes within installations or areas under ACP responsibility.

### **4.0 LEGAL FOUNDATION**

This Standard is established pursuant to Agreement No. 12 of the Board of Directors of the Panama Canal Authority (ACP), Safety and Health Regulations, Chapter 11, Article 16, Paragraph 5.

### **5.0 DEFINITIONS**

For the purpose of this Standard, the following definitions apply:

**5.1** Certificate of Inspection: Certificate placed on cranes indicating that the equipment has been inspected and authorized for work.

**5.2** Major Fault: Failure that represents an imminent danger to life and/or property.

**5.3** Inspector: Person designated by the Manager of the Safety and Industrial Hygiene Unit (RHSH) to inspect and certify that the hoisting equipment is or is not in optimum operating conditions.

**5.4** Load Hoisting Parts: Are those which directly support load and whose fault could cause its fall, sudden movement or imbalance.

**5.5** Load Control Parts: Are those that position, restrict or control the movement of the load.

**5.6** Critical Hoisting. (APPENDIX B)

**5.7** Personnel Baskets: (APPENDIX C)

**5.8** Major Repairs: Changes or repairs of mechanical parts directly linked to the hoisting of the load.

### **6.0 GENERAL**

#### **6.1 Inspection**

##### **6.1.1 Pre-inspection**

**6.1.1.1** The inspector inspects all new or contracted cranes at the initiation of the operations for the ACP.

**2600SEG124**  
**SAFETY STANDARD FOR CRANE OPERATIONS**

**6.1.2 Daily Inspection**

**6.1.2.1** Before initiating the daily operations, the crane operator inspects the crane.

**6.1.2.2** He/she documents the inspection by filling out the daily crane inspection form ((RHS) Form 698 found in INFORED).

**6.1.2.3** He/she submits the form to the supervisor for filing in each equipment file.

**6.1.3 Annual Inspection**

**6.1.3.1** All cranes 6,000 pounds or more shall be inspected once a year by the (RHS) inspector, who will grant an operation certificate, provided that the equipment is in optimum safe operating condition.

**6.1.3.2** For equipment less than 6,000 pounds, the Division shall designate a competent person to carry out the inspection of that equipment and to maintain the records.

**6.1.3.3** If the equipment is in optimum safe operating condition, it shall be labeled with a green sign that reads: “**Inspection Certificate.**”

**6.1.3.4** If the equipment is not in optimum safe operating condition, it shall be placed out of service immediately and labeled with a signed and dated red sign that reads: “**DANGER, DO NOT OPERATE.**”

**6.1.3.5** The equipment shall not be operated until the card is removed by a person authorized by (RHS).

**6.1.3.6** The only authorized person to grant the operating permission for equipment over 6,000 pounds shall be the inspector. If the inspector is not available, the (RHS) Supervisor shall assign another person to authorize the use of the equipment, once it has been verified that it is in optimum operating condition, and that the faults found have been corrected.

**6.1.4 Extraordinary Inspection**

**6.1.4.1** If major repairs are being performed on a crane, the inspector shall be contacted so that he may inspect it again before placing it in service.

**6.1.4.2** The above applies to mechanical repairs as well as repairs to damages caused by accidents or misuse.

**6.1.4.3** To perform crane modifications, the manufacturer's approval must be obtained.

**6.2 Crane Operations**

**6.2.1** All cranes shall be operated following the general guidelines described in APPENDIX A of this standard.

**6.3 Training**

**6.3.1 Initial Training**

**2600SEG124**  
**SAFETY STANDARD FOR CRANE OPERATIONS**

**6.3.1.1** All crane operators shall receive formal training on the procedures detailed in this standard.

**6.3.1.2** The Industrial and Safety Training Unit, (RHSI) shall evaluate the crane operators with a theoretical-practical test. On approving the test, the operator's supervisor shall fill out form 3204 found in INFORED and, duly signed by himself and the operator, shall send it to RHSI to initiate the process by which the permit shall be granted authorizing him/her to operate the equipment described in such permit for a period of up to 3 years. Contractor shall provide training for their own employees.

**6.3.2 Continued Training**

**6.3.2.1** The operator certificate shall have a period of validity of three years. Once this time has expired, the operator shall again attend training.

**6.3.2.2** The operator shall attend the training before the period specified in 6.3.2.1 if he/she has been involved in an accident, has been observed driving in an insecure manner, or if the supervisor so considers it.

**6.3.3 Training of Inspectors and of Qualified Persons**

**6.3.3.1** Qualified persons shall receive formal crane inspection training through an institution recognized at international level.

**6.4 Purchase of Equipment**

**6.4.1** All requests for purchase of cranes shall be reviewed by the ACP Crane Committee for verification that the equipment is adequate for the intended use.

**7.0 RESPONSIBILITY**

**7.1 Responsibilities of the Operators**

**7.1.1** Shall inspect the assigned equipment and fill out the inspection form at the beginning of each workday. ((RHSI) Form 698 found in INFORED.)

**7.1.2** Shall operate the crane adhering to the equipment capacity chart and to the speed established for the area of operation.

**7.1.3** Shall follow appropriate procedures when operating the equipment (APPENDIX A).

**7.1.4** Shall report to his supervisor any damage or irregularity that could affect the operation and safety of the crane and, per the supervisor's instructions, shall proceed with whatever is necessary for the pertinent repair.

**7.1.5** Shall plan and document any critical hoisting that he/she is to perform (APPENDIX B)

**7.1.6** The operator shall have responsibility for the operations that are under his/her control. If a doubt should exist regarding the safety of the operation, the operator shall have the authority to stop and refuse to handle the load until the conditions are safe.

**7.2 Responsibilities of the Supervisor**

## **2600SEG124**

### **SAFETY STANDARD FOR CRANE OPERATIONS**

- 7.2.1** Shall ensure the safe operation of the crane.
- 7.2.2** Shall verify compliance with the procedures described in this standard.
- 7.2.3** Shall ensure follow-up of damages or faults reported in the operator's inspection reports.
- 7.2.4** Shall safeguard and maintain the files for each crane, including the daily inspections.
- 7.2.5** Establish, in conjunction with the responsible operators, the safe work procedures, in accordance with the work area layouts.

#### **7.3 Responsibilities of the Inspector**

- 7.3.1** Shall perform the annual inspection and operational test of cranes over 6,000 pounds.
- 7.3.2** Once a year, the (RSHS) Safety Specialists shall audit the inspection records of the 6,000-pound equipment.
- 7.3.3** Shall have available the annual and extraordinary inspection records.
- 7.3.4** After appropriate notification, shall inspect the rented and contracted cranes that operate within the company.

#### **7.4 Responsibilities of the Manager**

- 7.4.1** Ensure that the operators are adequately trained.
- 7.4.2** Maintain proper conditions for a safe operation.
- 7.4.3** Ensure that equipment is repaired only by, or under the supervision of, qualified persons.

### **8.0 INQUIRIES**

Any information or clarification of the content or application of this Standard must be requested in writing to Safety and Industrial Hygiene Unit (RSHS).

### **9.0 EXCEPTIONS**

Any requests for changes or temporary exceptions to this Standard must be made in writing to the Safety and Industrial Hygiene Unit (RSHS).

### **10.0 TERM**

This Standard shall remain in force until amended or revised.

### **11.0 REFERENCES**

- 11.1** ANSI B30.5, Mobile, Crawler, Locomotive, and Truck Cranes.
- 11.2** ANSI B30.2, Overhead y Bridge Cranes.