

APPENDIX G

PROCEDURES FOR THE EXAMINATION AND QUALIFICATION OF CRANE OPERATORS

1. EXAMINATION PROCEDURES.

a. It is USACE policy that Commanders select, train, test, and license vehicle and equipment operators, and that all military and civilian personnel have a Standard Form (SF) 46 and demonstrate their proficiency in order to operate cranes and other material handling equipment. In addition, it is required that equipment operators successfully complete a written evaluation test to prove their technical knowledge of the equipment, and to satisfactorily demonstrate their proficiency in the operation of each type of crane, for which they are to be licensed.

b. It is recommended that each USACE Command select in-house crane examiners and that the Commander designate these individuals in writing. Examiners shall be trained and certified by an independent source, such as a commercial certifying group. Examiners will examine and qualify the Command's crane operators based on criteria in this Appendix. For Commands with few crane operators, where an in-house examiner would not be cost effective, operators should be examined and qualified by a commercial certifying group based on criteria in paragraphs 2 and 3, below.

c. The phrase "Only those operators qualified to operate a particular type of machinery may operate that type of machinery" applies to both USACE and Contractor operators. Again, this is not a new requirement. OSHA, through ANSI/ASME B30.5, requires crane operators to be qualified. Paragraph 5-3.1.2 of ANSI/ASME B30.5 requires that operators pass a written or oral examination and a practical operating examination unless able to furnish satisfactory evidence of qualifications and experience. Contractor crane and derrick

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operators are required to be designated as qualified operators by a source that qualifies crane and derrick operators. This includes independent testing and qualifying company or agencies; unions; governmental agencies; or qualified consultants.

d. The phrase "type of crane or derrick" refers to the following:

- (1) Mobile crane, lattice boom.
- (2) Mobile crane, telescopic boom crane.
- (3) Articulating boom (boom truck) crane.
- (4) Floating crane or floating derrick.
- (5) Gantry crane.
- (6) Portal or pillar crane.
- (7) Overhead crane.
- (8) Tower crane.
- (9) Derrick.
- (10) Monorail or underhung crane.

2. WRITTEN OR ORAL EXAMINATION REQUIREMENTS.

Crane operators shall pass a written or oral examination that demonstrates their knowledge of the following:

- a. Responsibilities of operator, rigger, signalpersons, and lift supervisor;
- b. Knowledge of USACE crane safety requirements and the crane's operator manual;

- c. Ability to determine the crane configuration, compute the size and shape of loads, and determine the crane's capacity using the load chart;
- d. Use and limitations of crane operator aids;
- e. Inspection, testing, and maintenance requirements;
- f. Determination of ground conditions and outrigger and matting requirements;
- g. Crane set-up, assembly, dismantling, and demobilization procedures;
- h. Requirements for clearance from power sources;
- i. Signaling and communication procedures;
- j. Factors that reduce rated capacity; and
- k. Emergency control skills.

3. PRACTICAL EXAMINATION REQUIREMENTS. Crane operators shall pass a practical operating examination that demonstrates their ability to perform the following:

- a. Inspecting the crane;
- b. Establishing a stable foundation and leveling the crane;
- c. Raising, lowering, extending, retracting, and swinging the boom;
- d. Raising and lowering the load line;
- e. Attaching the load, holding the load, and moving the load; and

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f. Reading load, boom angle, and other indicator devices.

4. PHYSICAL QUALIFICATIONS.

a. Operators shall have a current physician's certification that the operator meets the following physical qualifications:

- (1) Vision of at least 20/30 Snellen in one eye and 20/50 in the other, with or without corrective lenses;
- (2) Normal depth perception and field of vision;
- (3) Ability to distinguish colors, regardless of position;
- (4) Adequate hearing, with or without hearing aid, for the specific operation;
- (5) Sufficient strength, endurance, agility, coordination, manual dexterity, and speed of reaction to meet the demands of equipment operation; and
- (6) No tendencies to dizziness or similar undesirable characteristics.

b. Evidence of physical defects, emotional instability that could render a hazard to the operator, others, or safe operation of the crane, or evidence that the operator is subject to seizures or loss of physical control shall be sufficient reason for disqualification. In such cases, specialized medical tests may be required to determine these conditions and their effects.

5. EDUCATIONAL SKILLS. Operators shall demonstrate their ability to read, write, comprehend, and exhibit arithmetic skills and load/capacity chart usage, in the language of the crane manufacturer's operation and maintenance instruction materials.