APPENDIX K

BASIC PERFORMANCE TEST

FOR WEIGHT HANDLING EQUIPMENT OPERATOR LICENSE CATEGORY 2 AND CAB OPERATED CATEGORY 3 CRANES

Notes: (1) Prerequisite for this examination is complete familiarity with Standard Hand Signals for Controlling Overhead and Gantry Cranes shown in figure 10- 2.

1. Performance test requirements shall be supplemented and modified by the activity for the particular operating characteristics and features of the cranes as well as the unique mission of the activity.
2. The performance testing includes evaluation of the operator's ability to follow hand signals. Unacceptable actions include moving without a signal and incorrect response to signals. If the operator will be required to operate without seeing the load, the test shall be modified accordingly. Additional criteria for testing the ability to follow hand signals and blind operation are included in appendix J basic performance test problem #3.
3. Notation on Test Forms: A short line is provided before each test item. The examiner shall make a check mark to indicate that the applicant has correctly performed or answered the question. The examiner shall indicate by zero or circle where the applicant fails to perform or answer correctly. The examiner shall provide a short written explanation of all failures. Items that are not applicable shall be marked "NA."

GENERAL INFORMATION:

TESTING ACTIVITY: TEST DATE:

APPLICANT'S NAME: TO BE COMPLETED BY EXAMINER

MAKE AND MODEL OF TEST CRANE:

TYPE OF CONTROLS:

CAPACITY:

RESULTS: SATISFACTORY

UNSATISFACTORY

REMARKS:

SIGNATURE:

GROUP A - PRE-OPERATION INSPECTION

1. PRE-USE CHECK.

 a. Ensure the crane is currently certified before proceeding.

 b. Check the crane for tags or other operational restrictions or warnings.

 c. Ensure no repairs are in progress.

 d. Perform the walk-around, machinery, and operator’s cab checks listed on the Operator Daily Checklist (ODCL) and document on the ODCL (figure 9- 1).

 e. If accessible, check tracks for obstructions, misalignment, damage, loose connections, and conditions that may impact proper operation.

 f. Check the work area for hazards and obstacles. Request correction before proceeding when necessary.

1. FAMILIARITY WITH LUBRICATION REQUIREMENTS.

 a. Check lubricant levels where accessible and identify points that may require lubrication during periods of operation.

GROUP B - TESTING OPERATING CONTROLS

 1. Check to assure that all controllers are in the "Off" position.

 2. Energize the crane.

 3. If equipped, check the action of deadman switches.

 4. Test the action of hoist controllers by raising, lowering, and stopping the hook.

 5. Test the action of travel controllers and brakes by moving the crane back and forth a few feet. Check for proper brake action.

 6. Test the trolley controllers and brakes by moving the trolley back and forth a few feet. Check for proper brake action.

 7. Test the limit switches and other safety devices.

 8. Check the emergency stop, operational safety devices, warning devices and gauges. Notify the examiner of discrepancies.

 9. Document the operating test portion on the ODCL. The applicant and the performance examiner shall sign the ODCL.

GROUP C - OPERATING

Notes: (1) The accuracy standards indicated are considered minimum. The activity may impose more stringent standards based upon local or mission requirements.

(2) At no stage of the testing shall the operator allow the wire rope to become slack enough to loosen on the drum. This is an unacceptable practice and the examiner shall mark this action accordingly.

PROBLEM 1 - TEST FOR ACCURACY

Place an open container or other suitable target within the operating range of the crane and near one corner of the test area. The target should be at least half the height of the hook block and approximately 12 inches in diameter larger than the largest dimension of the hook block. The crane shall be positioned so that the hook is over the diagonally opposite corner of the work area. The operator shall position the hook over the container or target. Simultaneous controller operation, i.e., both bridge and trolley travel, shall be tested as appropriate. The operator shall demonstrate proficiency in placing the hook in the container or at the target location.

Note: The following actions are considered unacceptable:

 a. Striking. The operator shall not cause the hook to strike anything.

 b. Operating abruptly. The operator shall not cause the hook to swing excessively while operating.

 c. Contacting limit switches.

PROBLEM 2 - LIFTING AND HANDLING HEAVY LOADS

The load to be lifted in this test should weigh between 25 percent and 50 percent of the crane's rated capacity. The operator shall be told to treat the load as a heavy load. Use of a test weight is recommended. After the load is staged, properly rigged, and attached to the hook, a line shall be drawn on the floor 4 inches beyond the perimeter of the load. Upon receiving the proper signal, the operator shall lift the load just above the floor and test the operation of automatic brakes and foot brakes as appropriate. The operator shall be directed to move the load through a predetermined course that tests the operators ability to move the load. The course shall require diagonal movement or multiple controller movements as appropriate. The operator shall then return the load to the marked area. A rigger may assist by rotating the load, but shall not guide the load or direct load movement.

Note: The following actions are considered unacceptable:

 a. Failing to keep safe distances. The operator shall not cause any part of the crane or load to pass too closely to obstructions.

 b. Striking. The operator shall not cause the load or hook to strike the ground or any object or person.

 c. Abrupt movement. The operator shall not cause the load to jerk, seesaw, or wobble due to movements of the crane.

 d. Hoisting the load prematurely. The operator shall not hoist until the load has been properly secured, the rigger is clear of the load, and the hoist signal is given.

 e. Failing to observe improper rigging. The operator shall inform the examiner whenever, in the opinion of the operator, the rigging appears to be improper or unsafe.

 f. Snapping the load. The operator shall remove any slack in the hoist line using a low speed controller position or other appropriate method.

 g. Failing to test brakes. Brakes shall be tested immediately after the load is lifted.

 h. Endangering personnel. The operator shall not position the load over personnel and shall sound a warning gong or siren and wait for personnel to clear the area.

 i. Improperly landing the load. The operator shall demonstrate proficiency in safely and smoothly landing the load within the marked perimeter.

PROBLEM 3 - LIFTING AND HANDLING ODD-SHAPED OR SHIFTING LOADS

The operator shall lift and carry a light to moderately heavy load approximately 20 feet long over a predetermined course. Pipe, logs, beams, or loose lumber are acceptable. A rigger shall give the operator directions using hand signals and control the load using taglines.

Note: The following actions are considered unacceptable:

 a. Placing the hook incorrectly. The operator shall demonstrate proficiency in locating the hook as required for the lift.

 b. Hoisting prematurely. The operator shall not hoist until the load has been properly secured, the rigger is clear of the load, and the hoist signal is given.

 c. Improper rigging. Failure to identify unsafe rigging.

 d. Snapping the load. The operator shall remove any slack in the hoist line using a low speed controller position or other appropriate method.

 e. Endangering personnel. The operator shall not position the load over personnel and shall sound a warning gong or siren and wait for personnel to clear the area.

 f. Failing to keep safe distances. The operator shall not cause any part of the crane or load to pass too closely to obstructions.

 g. Striking. The operator shall not cause the load or hook to strike the ground or any object or person. The load shall be safely and smoothly landed as directed.

 h. Swinging abruptly. The operator shall not cause the hook or load to jerk, seesaw, or wobble due to movements of the crane.

GROUP D - SECURING THE CRANE

 1. Travel the crane to the proper storage location.

 2. Place the hook in the appropriate storage location, normally in its uppermost position, below any upper limit switch, but with sufficient clearance below the upper sheave assembly or trolley/hoist frame so that the subsequent operator performing an ODCL or pre-use check will be able to stop the hoist motion before a two-block event occurs in case the hoist does not operate in the correct direction upon initiation.

 3. Place all controllers in neutral.

 4. Secure the power supply and lock as appropriate.