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SMD Operations Procedures Manual

**8.1.1.11 SWITCH OVER FROM AUXILIARY
CRANE HOIST TO LODESTAR CHAIN HOIST**

Text Pages 1 through 4

Hand Processed Changes

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8.1.1.11 Switch Over from Auxiliary Crane Hoist to LODESTAR Chain Hoist

1.0 Purpose and Scope

The purpose of this procedure is to describe the operation required to switch over power from the auxiliary 5 ton crane hoist to the LODESTAR chain hoist.

2.0 Responsibilities

The operator is responsible for performing this procedure and documentation.

3.0 Prerequisites

- 3.1 Personnel who perform the procedure shall be listed as an Authorized Magnet Test Group Control Room Operator. The list is available from John Cintorino (extension 2544 page 4132).
- 3.2 The crane is normally left with the auxiliary 5 ton hoist activated (powered) for operation by other groups in Building 902.
- 3.3 Operator shall be trained for incidental rigging, hold a valid Safety Awareness Certificate.
- 3.4 Operator shall be trained as a "responsible employee" as defined by RHIC SEAPPM 1.5.1 II.C.

4.0 Precautions

- 4.1 Due to large weight and height considerations of high bay cranes, only trained authorized personnel shall operate them.
- 4.2 Due to the height and general nature of this procedure, an individual aware of BNL emergency reporting procedures (i.e., ext. 2222 and area fire alarm pull boxes) shall stand safety watch while the authorized Control Room Operator performs this procedure.

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- 4.3 If any malfunctions or unexpected events occur during operation, stop and immediately correct the problem using proper channels (consult experienced rigger, contact supervisor, ES&H Coordinator, etc.). Do not proceed at possible risk of injury.

5.0 Procedure

- 5.1 The lifting crane in the large high bay area is equipped with three hoists:
 - A. Main 30 ton lifting hook
 - B. Auxiliary 5 Ton lifting hook
 - C. LODESTAR (orange) 1/2 Ton lifting hoist, mounted on east side of crane trolley.
- 5.2 The crane power is set up such that the main hoist is powered all the time. Power can be switched to either the auxiliary hoist OR the LODESTAR, but not simultaneously. The auxiliary hoist is normally left powered up until LODESTAR is needed. Restore when LODESTAR usage is complete.
- 5.3 If the LODESTAR does not respond to the yellow remote control operation, make sure the crane power is on by operating main hoist and auxiliary hoist. If auxiliary hoist responds, then commence power switch over to the LODESTAR. Also make sure that auxiliary hoist is not against its upper limit switch. If it is, lower it enough to clear the limit switch lever.
- 5.4 Recheck remote control operations as follows:
 - 5.4.1 Remote POWER LED on.
 - 5.4.2 Toggle INCH/NORMAL switch to NORMAL.
 - 5.4.3 Press ON/START Button.
 - 5.4.4 Hold HU/HD (Hook up/Hook down) switch in HU position. OUTPUT LED should flicker steady. If not, try replacing the remote control battery with a freshly charged one.
- 5.5 Move the crane all the way to EAST position. The gondola on the north side of crane should line up with gate on north mezzanine railing.

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- 5.6 On the main control panel, shutoff crane power. Walk to the east stairway that leads to the main floor. This stairway is south of the southeast corner of the North High Bay area, just beyond the 11 hz dewar area. At the base of the stairs there are three sets of push buttons for crane power. Lock and tagout the HIGHBAY NORTH lockout switch, in accordance with OPM 2.11

CAUTION

It is vital to perform this lockout of crane power to avoid accidental crane operation by uninformed or unobservant individuals who may not know that you are performing this operation. You could be injured or killed if the crane is unexpectedly operated while you are boarding or disembarking from gondola, while you are climbing ladder, or standing on platform. You can be caught by moving machinery, or lose your balance and fall.

- 5.7 Walk around walkway to gate, located at the northeast corner of high bay area, unlock/open gate, climb ladder in gondola up to service platform of crane.

CAUTION

Use extreme caution while walking about crane platform. Avoid tripping over obstacles, or slip on any oil or grease spills or other hazards above or below.

- 5.8 Locate on trolley a large grey switching box facing west that is labeled "AUX" & "LODESTAR". Operate switch lever down to LODESTAR position, which is the lowest of the three positions. Remove the KIRK key-operate lock if necessary to remove it.
- 5.9 Locate small grey switchbox, facing north, located with a group of electrical control equipment boxes just north of center of crane. It is labeled "LODESTAR BYPASS". Insert key into Kirk lock, turn to retract lockout bolt, and turn switch lever up on box.
- 5.10 LODESTAR hoist is now ready for use. Exit platform, relock railing gate. Remove the lock and tag, then press the START button. Press power switch button on hanging crane control panel. Check that LODESTAR hoist will now operate. Repeat step 5.4 if any operational problems are encountered.

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- 5.11 Enter appropriate notes in Magnet Test Control Room logbook on switch over. When operation of LODESTAR hoist is complete make sure to return crane power back to AUX hoist for usage by others on work floor. If a shift changeover occurs before switching back to AUX hoist INFORM RELIEVING SHIFT OF STATUS AND REQUIRED CHANGEBACK. Log change back to AUX hoist.
- 5.12 In the event of LODESTAR operations failure, AUX hoist may be substituted with proper lifting straps and lifting eye bolts. Report equipment malfunction to Magnet Test Control Room supervisor promptly.

6.0 Documentation

Control Room Logbook

7.0 References

None

8.0 Attachments

None