



RAISING AND LOWERING WC REAR ACCESS PLATFORMS

procedure name

PHENIX Procedure No. PP-2.5.5.1-02

Revision: D

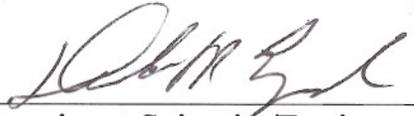
Date: 1/24/2014

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approvals


Paul Bramble 3-6-14
 PHENIX Engineering Date


1/29/14
 Cognizant Scientist/Engineer Date
 /Activity Manager


P. Bramble 3-6-14
 PHENIX Safety Date

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REVISION CONTROL SHEET

LETTER	DESCRIPTION	DATE	AUTHOR	APPROVED BY	CURRENT OVERSIGHT
A	First Issue Reviewed 6/6/07 and determined to be up-to-date	12/09/2003	n/a	P. Kroon, W. Lenz, C. Pearson	D. Lynch
B	Reviewed and found to be up-to- date	5/28/2010	n/a	D. Lynch, P. Giannotti, R. Pisani	D. Lynch
C	3 year review with no changes to content. New rev letter and date	6/4/2013	n/a	D. Lynch, P. Giannotti, R. Pisani	D. Lynch
D	section 5.0 extensively revised to reflect appropriate operating procedure for new winch and controls installed in 2012 and 2013 shutdowns. Official copy note on cover page added	1/24/2014	P. Giannotti	D. Lynch, P. Giannotti, R. Pisani	D. Lynch

1.0 Purpose & Scope

- 1.1 The purpose of this procedure is to provide directions for the safe movement of the platforms used to provide personnel access to the rear of the PHENIX west carriage (WC), in the PHENIX IR.
- 1.2 These rear access platforms (three levels) are raised and lowered as a group by a powered winch located under the WC, and they fit between the WC and the west wall of the IR only when the WC is in its data taking position, i.e. the WC is "in". The rear access platforms must be raised up out of the way to retract the WC to its "out" position against the west wall.
- 1.3 This procedure is tightly correlated to the movement of the WC. Personnel are not permitted below the raised platforms, and the platforms provide the only safe way to travel north-south behind the WC (when it is "in"). Therefore, the platforms must be lowered whenever the WC is "in". The WC "in" and the platforms raised is an unsafe condition and only permitted with safeguards as necessary during the operations defined herein.

2.0 Responsibilities

- 2.1 Only trained BNL technicians shall perform the tasks described herein, under the supervision of the PHENIX Building 1008 Lead Technician.

3.0 Prerequisites

- 3.1 Training: All personnel involved in this procedure shall have reviewed this procedure and the procedure for moving the WC (PP-2.5.5.1-01).
- 3.2 There are only two acceptable end states of this procedure: 1)WC "in" and platforms down, and 2) WC "out" and platforms up.

4.0 Precautions

- 4.1 No one is permitted on or underneath the rear access platforms unless they are fully down and locked out.
- 4.2 Care must be taken when locating access platforms on the upper safety stop pins or at the fully down position to avoid creating slack in the cables.

5.0 Procedure

5.1 **To move the WC into data taking position ("in") and lower the rear access platforms.**

- 5.1.1 Retrieve the WC rear platform disconnect key from the PHENIX lock box.
- 5.1.2 Sweep WC and rear platforms of all personnel.
- 5.1.3 Rope off area behind WC or post guards to prevent personnel from going underneath platforms.

Energize the Winch Controls

Perform the following steps using the "Window Washer Winch Power Box"

NOTE: Perform steps 5.1.4 and 5.1.5 in sequential order.

- 5.1.4 Rotate the "Winch Motor Power" breaker switch (RED) rotary handle clockwise to the ON position.
 - 5.1.5 Insert the key into the "Control Power" switch and turn it clockwise to the ON position.
 - 5.1.6 Verify the power indicator LED lights are illuminated and flashing.
- Perform the following steps using the "Window Washer Winch Control Station"**

Unlock the Pins

- 5.1.7 Verify the Emergency Stop push button is turned and pulled out to the reset position.
- 5.1.8 Verify the green "Up Limit" light is illuminated. This indicates the winch is in the full up position and the platform arms are above the locking pins.
- 5.1.9 Verify that the North and South platform locking pins are at their IN positions. The GREEN lights will be illuminated.
- 5.1.10 Verify the "Platform Locking Pin Control" push button WHITE "Enable Light" is illuminated.
- 5.1.11 Press the RED "OUT" push button momentarily. Verify that the North and South pins are moving from their IN to their OUT positions by witnessing

both flashing YELLOW “MOVING” lights. When each pin reaches the out position, its RED “OUT” light will illuminate. The platform is now ready to be lowered away from its full up position.

Lower the Platform

- 5.1.12 Press the “Down” push button. Verify that the WHITE Pin Control Push Button “Enable Light” is no longer illuminated. The platform will travel down as required by the operator and will stop at any point when the button is released.
- 5.1.13 Continue to lower the platform until the “Down Limit” is reached. The platform will automatically stop at this point. Verify that the BLUE “DOWN LIMIT” light is illuminated.

Raise the Platform

- 5.1.14 Raise the platform by pressing the “Up” push button. The platform will travel up as required by the operator and will stop at any point when the button is released.
- 5.1.15 Continue to raise the platform until the “Up Limit” is reached. The platform will automatically stop at this point. Verify the GREEN “Up Limit” light is illuminated. Also verify that, simultaneously, the WHITE Pin Control Push Button “Enable Light” becomes illuminated. This tells the operator that the locking pins are ready to be moved to the IN (locked) position.
- 5.1.16 The Up Limit is considered to be the Stowed position. Therefore, if it is intended to leave the platform controls unattended while in this position, then, lock the pins by pressing the BLACK “IN” push button, momentarily. Verify that the GREEN “IN” lights both become illuminated.

CAUTION: Always lock the pins (in position) immediately after reaching the platform UP limit. This will ensure that the pins are not left unlocked if the controls are de-energized or the operator walks away from the station even for a short time.

Testing the Emergency Stop and Interlock Functions

- 5.1.17 When the platform is positioned anywhere between the UP and DOWN limits, push the EMERGENCY STOP button. It will latch in the pushed position. Verify that all indicator lights are not illuminated on the “Window Washer Winch Control Station”. Also, attempt to move the platform via the Up or Down push buttons. Verify that the platform does not move (Emergency Stop function).

- 5.1.18 Reset the Emergency Stop push button by twisting it.
- 5.1.19 When the platform is positioned anywhere between the UP and Down limits, attempt to move the locking pins to the IN position. Verify the pins do not move. (the locking pin controls are disabled unless the platform is at the UP LIMIT). This interlock prevents pin insertions & keeps them cleared away, thus preventing a pin to platform collision while travelling in the up direction.
- 5.1.20 When the platform is at the UP Limit AND both pins are at the IN position, attempt to lower the platform via the DOWN push button. Verify that the platform does not move. This interlock prevents the platform from crashing into the locked pins if attempted to be lowered from the UP limit.

Stowing the Platform & De-energizing the Controls

- 5.1.21 Move the platform to the “UP” limit.
- 5.1.22 Lock the pins.
- 5.1.23 Press the Emergency Stop Push Button.

NOTE: Perform steps 5.1.22 and 5.1.23 in sequential order.
- 5.1.24 De-energize the winch controls by turning the “Control Power” key switch, counterclockwise, to the OFF position.
- 5.1.25 Rotate the RED “Winch Motor Power” breaker switch rotary handle, counterclockwise to the OFF position.
- 5.1.26 Remove the key and return it to the PHENIX Control Room lock box.
- 5.1.27 Remove rope barriers or guards.

6.0 Documentation

NONE

7.0 References

7.1 PHENIX Procedure PP-2.5.5.1- 01, Moving Central Magnet and Detector Carriages in the PHENIX 1008 IR.

8.0 Attachments

NONE