

Procedure to Use Emergency Closing Generator for the Wind Baffle and Enclosure

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The proper procedure to set up the wind baffle and enclosure to be powered by the emergency generator in the event that both commercial and site emergency generator power is lost.

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CAUTIONARY NOTES:

THIS OPERATION MUST BE DONE WITH TWO PEOPLE; STATION ONE ON THE OBSERVING DECK AND THE OTHER ON THE LOWER LEVEL. PEOPLE ON DIFFERENT LEVELS MUST BE IN COMMUNICATION WITH EACH OTHER.

The enclosure should be open with telescope in an un-stowed position.

Ensure that the enclosure main arc lamps and the re-circulation fan are off.

Carry a flash light if after dark; power will be unavailable.

Only those persons having a purpose and are trained may execute this procedure; see web-based [training list](#).

Check the whiteboards in the Ops building and both levels of the 2.5-m enclosure for the current status of the telescope and any other notes which may pertain to this procedure. Be sure to indicate your planned change of status.

SAFETY WEAR: (recommended) rubber-soled shoes

EQUIPMENT INVOLVED IN THIS PROCEDURE

Emergency closing generator (ECG); Location: on the lower level outside east grating adjacent to the east wall; Appearance: covered under tarp.

Power panel GEN; Location: ?; Appearance: grey circuit breaker box

Wind baffle (WB) control power switch; Location: ?; Appearance: ?

Enclosure power switch box; Location: ?; Appearance: ?

PROCEDURE: accomplish in numerical order

Preparation

Place the WB and enclosure power switches in the off position.

Start the ECG:

pull the choke control button out

twist the ignition switch until the motor starts

push choke button back to normal position.

The ECG should be allowed to run idle for at least 2 minutes before placing a load on it. It requires about 5 minutes to set up the telescope to move.

The "[Emergency Closing Procedures](#)" for the enclosure are implemented at this point. Read the complete instructions, cautions and equipment used. Sections are included below.

Preparation

1. Open the WB control box. Warning - there is 208 VAC in this box keep hands aware from circuitry.
2. Find emergency closing controller
3. Open the power switch to the WB control box by throwing the red handled lever mounted to the side of the junction box located directly below the WB control box
4. Disconnect the 2 Brundy cables located in the bottom of the WB control box labeled "24 VDC and Inhibs"
5. Connect the appropriate cable from the Emergency Closing (EC) controller to the EC power supply and the other 2 cables to the 24 VDC and Inhibs connectors (connectors are different so connections can not be confused)
6. Make sure the EC controller toggle switches labled AZ and ALT are "Off"
7. Throw the WS control box power switch "close" (up)

8. Activate the on switch for the EC power supply, if not already on
9. Disconnect the az axis control brundy, left side of box 1/3 way up from bottom
10. Connect the WS manual pendent to this connector, making sure that the "pot" reads "000" and the palm switch is depressed
11. Turn on the az switch on the EC controller; this should fire up the 3-left Somitoma amps located top of box and labled az amps
12. Disengage the az brake by turning the az brake valve to the "off" position

The telescope can now move in azimuth. Continue the procedure in sequence.

1. With one person on the observation deck, the WB clear of the hand rail, and the alt above 20°, pull up on the palm switch on the WS manual pendent to engage the system
2. Slowly turn the "pot" knob until the az begins to move, about 1/2 to 1 1/2 turns, if moving in right direction continue, if not reverse direction of "pot" and az will reverse direction
3. Continue to move az at comforable speed until 121° markers line up, slow down when approaching markers and set the "pot" to "000" before depressing the palm switch
4. Engage the az brake by moving the az brake valve to the "on" position
5. Turn off the az switch on the EC controller

The telescope is now ready to lower altitude axis. Continue the procedure in sequence

1. Make sure the palm switch on the WB manual pendent is depressed and the "pot" reads 000
2. Change the WB manual pendent connector in WB control box to ALT Axis Brundy, make sure the "pot" is at "000" and the palm switch is depressed
3. Switch on the alt switch on the EC controller, the alt amp should fire up
4. Proceed to the observation deck with the WB manual pendent and station yourself at the drive chain side of the WB, the south side when the az is at 121°
5. Disengage the alt brake by turning the alt brake valve to the "off" propositon
6. Standing by the south side of the telescope, check that 'pot' reads "000" then pull the palm switch
7. Turn 'pot' slowly to determine correct alt movement
8. Bring alt to 6° and slowly approach and set 'pot' to "000" and, depressing the palm switch, on alt brake
9. Disconnect and reconnect all Brundy connectors to bring system back to normal at the WB control box

After placing the telescope in stow position return the WB switch to the off position.

Place the enclosure switch in "generator power" position

Proceed to upper level and close enclosure and hatches

Close east and west doors

Return to lower level and place EC switch to off position and reconnect WB switch to generator power

Returning to upper level stow telescope at 30° altitude using the WB manual pendent

Return to lower level, place WB power switch to off position and disconnect the WB interlock bypass pendent. Return WB controller axis brakes to normal condition

Place both WB and EC switches to commercial power positions

Shut down emergency closing generator and close up access door

Log activity in status log located on north wall inside lower level

END OF PROCEDURE
