6. Common features in the operation of Siemens' and Podanur workshop panels:

i) The Station Master's key provided on the panel enables Station Master to lock the panel in the last operated position and prevent un-authorised interference with the panel. The panel should normally be kept locked when not being operated.

ii) Abnormal circumstances and failures:

a) Point indication flashing when point is operated.

1) If the flashing continues for 10 seconds, restore the points to normal position. Try to operate points 4 or 5 times from N to R and R to N,

2) If the flashing still continues, physically verify the points at site and remove any obstruction in the points between the switch and stock rails,

3) Again operate the points, and

4) If the flashing still continues, treat the points as defective and call for ESM/SI. In the meanwhile, use crank handle to set points and pilot the trains.

b) Signal fails to clear**:**

1) Ensure that Station Master'**s** key is in and turned to unlock the panel,

2) Check whether all the buttons/knobs are in the required positions,

3) Cheek the point position to see that the correct route is set and the track circuits on the route are showing white indication on the panel,

4) Check whether the crank handle is IN and HKT is properly inserted and turned to clockwise direction and key IN indication is available on the panel,

5) Check siding point keys and LC gate control keys and see that they are in the respective HKTs and turned clockwise. Ensure siding key IN and LC gate closed indication before clearing the signal, and

6) If signal lamp failure indication is flashing and audible warning is ringing, stop the warning bell by pressing the acknowledgement button and pilot the trains. Call for ESM/SI to rectify the defects.

c) Failure of automatic cancellation of sub-route in rear of train:

1) Verify whether the track circuit portion is unoccupied,

2) Call for the assistance from ESM/SI and get the defect rectified, and

3) If ESM/SI is not readily available, use crank handle to set points and pilot the trains.

d) All Indications on the Panel going blank:

1) Check the power supply. If it has failed, start the generator. If power is available and the fault continues, call for ESM/SI.

2) Check the position of points and signals.

e) Use of crank handle during route/points failure:

One or more crank handles as required are provided at stations for manual operation of points during failure. They are chained to keys in HKTs which are housed in boxes, padlocked and sealed. A release button is provided on each HKT, by pressing which the key can be taken out. Once this is done, all signals on the concerned route get disconnected and would not assume the 'off' aspect. Crank Handles should be used strictly in accordance with SR 3.38 (8). Whenever points are operated by crank handle, they should be clamped and padlocked. A crank handle register should be maintained giving particulars of its use. After the

failure is rectified, the crank handle must be restored in the box and HKT key inserted in the HKT and turned fully to the right until key IN indication appears on the panel. The box should then be locked and sealed.

Instructions to release crank handle:

a) At central panel station, where the route is free or locked —

i) Ensure all signal knobs are normal,

ii) Press the crank handle release button 'YK'. Crank handle free indication will appear. Continuously press the button and turn the HKT/EKT to the left to extract the key with crank handle.

b) At end panel stations**:**

i) When the route is not locked, adopt the procedure as in (a) (i) and (ii).

ii) When the route is locked, press the crank handle release button after ensuring that signal knobs are normal. Then cancel indication will appear on the panel. After a lapse of 120 seconds, free indication will appear near the HKT/ EKT in the box. Now turn the key to left duly pressing the button and release it.

c) Same procedure (b) to be followed for releasing LC gate keys under route locked up condition. In non-RE area DC Calling-on signals have been provided at almost all stations. These signals can also be cleared in case of power failure without starting generator so that detentions to trains can be minimized.

f) Failure of main power supply:

1) When main power supply fails, an audible warning along with a red light indication is given on the panel. Stop the buzzer by pressing the acknowledgement button. The red light will continue to burn,

2) Start generator No.1 by using push button arrangement. If it does not start, use crank handle to start it,

3) Change the main/generator switch to generator position and change Generator (1) / (2) switch to generator (1) position. Check whether all indications are available on the panel and resume normal working

4) After 4 hours, if main power supply does not resume, start generator (2) and change over the generator (1)/(2) switch to generator (2) position.

g) Main power supply resumes:

1) Once again audible warning comes on the panel. Stop it by pressing acknowledgement button. Now the red light indication disappears,

2) Stop the generator,

3) Change the main/generator switch to main position, and

4) Check the availability of all indications on the panel.

h) Frequent failure of main power supply:

If frequent and intermittent failure of main power supply is experienced, to avoid signals going blank in the face of an approaching train, the power supply shall not be changed over to the main till the required train movement is completed even if the main supply resumes

(i) General**:**

1) Report power failure to Electrical Inspector/Foreman. Frequent or prolonged failures should be reported to DEE.

2) Maintain a power failure register giving duration and use of generators to account for oil consumption.

‘Dos’ for Station Masters:

1 Keep the panel locked when not in use.

2 Use line blocked caps on the relevant buttons whenever a line is blocked or a particular button is not to be operated.

3 Use ‘rusty rail’ collars whenever there is no movement on track circuited lines for more than 24 hours.

4 Test emergency cross over once in a day to ensure its proper functioning.

5 Whenever point indications continue to flash, personally check the points and ensure that there is no obstruction in the points.

6 Before using ‘EWN’ button for emergency release of points, ensure physically that the ‘points section’ is clear of all obstructions.

7 Whenever movements are to be made over disconnected/damaged/defective points, clamp and padlock both the facing and trailing points on the route.

8 After an unsignalled move is made over a point, operate the point from normal to reverse and again to normal to ensure that is not defective.

9 Whenever any signal suddenly goes back to ‘on’ and points start flashing, treat the points as defective and act accordingly.

10 Take disconnection memo before allowing S&T staff to interfere with points, signals, track circuits etc., or before handing over crank handle to them.

11 Before accepting reconnection memo, test the relevant gears to satisfy that they are in proper working order.

12 Personally verify complete arrival of the train at your station before clearing back the block section.

13 Ensure double locking of block instruments and relay rooms. Maintain the keys register properly.

14 a) Ensure that all the seals provided by S&T staff on the various equipments are intact.

b) Whenever the seal is broken, ensure that it is properly resealed after the work is over.

15 Ensure that register for recording the route cancellation counter numbers are properly maintained.

16 Record all power failures and use of generators in the power failure register.

17 Use generators alternatively for every four hours during power failure to avoid over heating.

18 Intimate all power failures to Electrical Inspector/Foreman for necessary action. For prolonged failure, DEE must be advised.

19 While handing over charge ensure that the last reading of all the counters are correctly recorded in the concerned registers.

20 Verify while taking over charge by actual observation the readings displayed in the counters.

21 Report promptly all failures in writings to the S&T staff and record them in the failure register.