

METRO RAILWAY KOLKATA

No. 30 / 2011

STATION WORKING RULES OF GITANJALI STATION

Broad Gauge

Date of issue: **15.03.2012**

Date brought in force: **08.04.2012**

CRS's Sanction no.: **3601/04/VIII/**

Pt-I/1220 dt.03.02.2012

NOTE:

- I) The Station Working Rules (SWR) must be read in conjunction with General & Subsidiary Rules. These rules do not in any way supersede any rule in the above book.
- II) The SWR is page numbered with the station name written on each page and signed by the Dy. Chief Operations Manager and Dy. Chief Signal & Telecom Engineer as it is Interlocked station.
- III) The SWR may be issued afresh after five years or after issue of three amendment slips and reviewed as and when required.
- IV) Any new innovation introduced to facilitate train operation will be incorporated in SWR.

1. STATION WORKING RULE DIAGRAM

SWR Diagram No.0030/07 based on CSTE/Metro Railway's Signal Interlocking Plan No.30/06 is attached, showing the complete layout of the Yard, Signals, Gradients and Interlocking arrangements of the station, exact and actual holding capacity of all individual lines in meters, actual inter signal (demarcation point) distances, names of adjacent stations on either side of the station with their respective distances from the center line of the station building to the central line of adjacent stations and any other information necessary in the day to day operation of trains. While reporting accident, failure etc., the number of signal, kilometer etc. as shown in the diagram shall be referred to.

A separate electrical diagram No. ELECT/PSI/SLD/NOA-NG/R3, SH- 27 / PN / BR / TSS (Station Code 30) is also attached showing interrupters, isolators etc. for isolation of traction feeding arrangements.

2 DESCRIPTION OF THE STATION :

2.1 GENERAL (LOCATION)

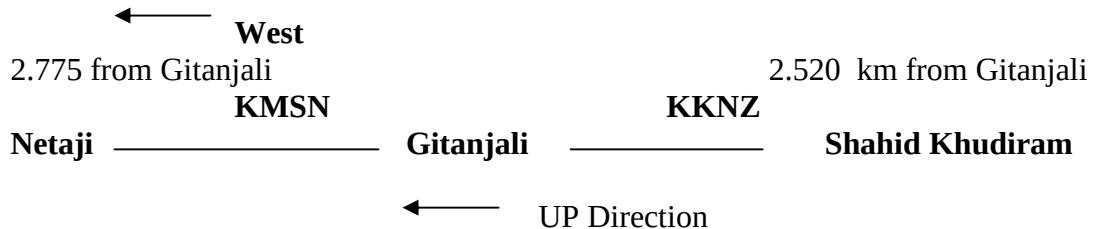
Gitanjali is a Special class Standard-II interlocking panel, equipped with three aspect colour light Semi Automatic signals, on the section between Mahanayak Uttam Kumar to Kavi Subhash double line, Automatic Block Working Electrified Broad Gauge section of Metro Railway, Kolkata, on Dumdum – Kavi Subhash route and situated at KM 21.039 from Dumdum Station. Traffic movements are controlled from a station panel by the TS/Sr.TA's situated at the middle of UP Platform level, both side Mezzanine floors where the Exit gates & direct dispersal facility to the roads and a central mezzanine where Station Superintendent, Station Master (Shift In charge)'s office, Booking office and Entry/Exit Gates have been provided. It is an elevated station just over the Tolly- nulla.

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Dy.COM (Safety)

A.S.Tomar
Dy.CSTE (C)

2.2. BLOCK STATIONS, IBH, IBS ON EITHER SIDE AND THEIR DISTANCE AND OUTLYING SIDINGS

Gitanjali station is situated between Netaji in the West side at a distance of 2.775 KM and Shahid Khudiram the East side at a distance of 2.520 KM from this station. There is a Station, Master Da Surya Sen. between Gitanjali and Netaji at a distance of 1.053 KM and another station Kavi Nazrul at a distance of 1.245 KM from this station.



There is no IBH / IBS at either side of this station.

There are no Outlying Sidings at this station.

2.3 STATION LIMIT AT GITANJALI

Down direction-Section between the Down Semi Automatic Reception Stop Signal No.SA-3062 at the west side and Semi Automatic Despatch Stop Signal No.SA-3064 at the east side of Gitanjali station.

Up direction---- Section between the UP Semi Automatic Reception Stop Signal No.SA-3061 at the east side and Semi Automatic Despatch Stop Signal No.SA-3063 at the west side of Gitanjali station.

2.4. GRADIENTS:

West side :- i) 1 in 200 (R) to Level towards Gitanjali Station yard at KM 19.894
 ii) Level to 1 in 100 (F) towards Gitanjali Station yard at KM 20.121
 iii) 1 in 100 (F) to Level towards Gitanjali Station yard at KM 20.168

East side :- i) Level to 1 in 1500 (R) over Platform at KM 21.109.
 ii) 1 in 1500 (R) to Level towards Kavi Nazrul Station at KM 21.154
 iii) Level to 1 in 100 (R) towards Kavi Nazrul Station at KM 21.854
 vi) 1 in 100 (R) to Level towards Kavi Nazrul Station at KM 22.220
 v) Level to 1 in 95 (F) towards Kavi Nazrul Station at KM 22.477.

2.5. LAY OUT

There are two running lines, one Up main line and one Down main line at this station. The platform is High level – either side of the two main lines.

2.5.1 RUNNING LINES DIRECTION OF MOVEMENT & LENGTH OF PLATFORM

The direction of train movement from Netaji to Shahid Khudiram is called the Down direction and the direction of train movement from Shahid Khudiram to Netaji is called the Up direction.

Length of Platform (Up Line) ---- 170 m

Length of Platform (Down Line) ---- 170 m

2.5.2. **NON RUNNING LINES AND THEIR CAPACITY IN CSR**

There is no non-running line.

2.5.3 **ANY SPECIAL FEATURE IN THE LAY OUT**

There is no Catch Siding / Slip Siding / Non -standard Turn outs / Curve / spring Point etc. at this Station.

2.6 **LEVEL CROSSING**

There is no Level Crossing Gate at this Station. (*Appendix-"A"*)

3. **SYSTEM AND MEANS OF WORKING**

System of Working is in force: -

The station panel is having Standard-II interlocking and equipped with three aspect colour light with illuminated 'A' marker Semi-automatic signals may operated from the Panel Board provided at Gitanjali panel room. Signals and MSDAC reset console box indications, etc. are provided at Panel Board to visualise the condition of track whether occupied or clear and the condition of signals. SM's key is provided on the panel board which when extracted, the Panel Board will be in operative. The detail of Signalling and Interlocking is given in Appendix-B of this SWR.

(i) System of Working is in force at Station Panel:-

Automatic Block System of working, using Double line Panel Interlocking with three aspect colour light signals. The trains between Netaji-Gitanjali and Gitanjali-Shahid Khudiram are worked in accordance with **GR.7.18, 7.19, 7.21, 7.25** contained in General Rules for Metro Railway with Subsidiary Rules and Appendices of the Metro Railway, Kolkata. Whenever the signal is working as Semi automatic, taking "OFF" of the concern stop signal shall be the "Authority to Proceed" to the Driving Motorman. The Sections are protected with Multi section Digital Axle Counters. Block Magneto Telephone with the adjacent Panel at Netaji and Shahid Khudiram stations, Railway Auto Phone and Section Control Telephone has been provided at Gitanjali Station's Panel. TS/Sr.TA on duty Panel is responsible for operation of Panel and shall ensure that Panel Key & Axle Counter resetting keys are in his possession (GR 8.12 & SR 8.12).

(ii) System and means of working when illuminated 'A' marker semi Automatic signal is failure:-

If the illuminated "A" marker of a semi automatic signal fails to light up and aspect of the concerned signal is red, at that time the concerned signal will be treated as a manual stop signal. In case of despatch stop signal, (SA-3063 & SA-3064) the panel operator shall issue (O & M /T-3B) to the motorman for passing the concerned despatch stop signal at danger up to the next automatic stop signal with restricted speed. In case of reception signal, (SA-3061& SA-3062) the panel operator shall depute his points man to display green hand signal/green light from the edge of the platform to the driving motor man to enter into the platform with restricted speed. Detailed in Appendix-B.

4. **SYSTEM OF SIGNALING AND INTERLOCKING**

4.1 The Standard of Interlocking at this station is Standard-II. Automatic Block Working with three aspect colour light signals in accordance with GR-3.51, 3.52, 4.12, 7.18, 7.19, 7.20, 7.21, 7.22, 7.23, 7.24 7.25 Automatic/Semi Automatic Signal have been provided at the station for both Up and Down direction respectively. When a Semi - Automatic Signal is working as a manual stop signal, the Operation of Signals is done from the Panel Board. The signals are interlocked by means of Multi Section Digital Axle Counters and Panel Interlocking. When all semi-Automatic signals are transfer to Automatic signal, no operation is require from panel board. Signal aspects are controlled by axle counter sequence of track sectional operation & aspect of the signal ahead.

4.1.1. **SIGNALS:**

- (i) The illuminated 'A' marker is provided on reception Semi Automatic stop Signal No.AS-3062 and despatch Semi Automatic stop Signal No.AS-3064 with red, yellow and green aspects on Down line.
- (ii) The illuminated 'A' marker is provided on reception Semi Automatic stop Signal No.AS-3061 and despatch Semi Automatic stop Signal No.AS-3063 with red, yellow and green aspects on UP line.

There is no point/cross over at this station.

Interlocking and Signaling with operational procedure are given in *Appendix-B*

Details of Anti Collision Devices given in *Appendix-C*.

4.2. **CUSTODY OF RELAY ROOM KEY AND PROCEDURE FOR ITS HANDING OVER AND TAKING OVER BETWEEN TS/Sr.TA(PANEL) AND S&T MAINTENACE STAFF**

The Relay Room is jointly locked by TS/Sr.TA and S&T Maintenance Staff. The relay room can't be opened by a single Key, needs both the Keys for opening the Room. A "Relay Room Key Register" is maintained by the TS/Sr.TA (Panel), while handing over and taking over the key, the date, time and reason for taking over the Key should be recorded in the Register and signed by both Signal Maintaining staff not below the rank of ESM/MSM and TS/Sr.TA (PANEL).The Relay Room key shall not be handed over to S&T Maintenance Staff during the Commercial hours, except otherwise directed by higher officials or in emergency. During non commercial hours the relay room key handing over and taking over to on duty RPF by the panel operator as per JPO no. Metro/Optg./Safety/01 dated 21.12.2010.

No unauthorised person should be permitted to enter into the Panel Room / Relay Room.

4.3. **POWER SUPPLY**

There are two sources of 415 V 3 phase AC Power supply, namely main power supply and standby auxiliary power supply connected to an Auto-cum-Manual change over unit located inside the relay room. Signalling gears are normally fed from main power supply which when fails, automatically switches over to auxiliary power supply through Auto-cum-Manual change over unit within 10 seconds time to feed the signaling gears provided Auto/Manual Selector switch is kept in "Auto" mode and Main/Auxiliary power selector switch is kept in "Main" mode. In case changes over does not take place automatically within 10 seconds time, the on duty TS/Sr.TA (Panel) shall informed to S&T maintenance staff immediately.

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Dy.CSTE (C)

When both Main and Auxiliary power supply fail, feed to signalling gears will be made available by IPS (integrated Power Supply) system for a specified back up time after which signals became 'NO LIGHT'. Whenever there is power failure or power resumption, an audible alarm through a buzzer will be available which has to be acknowledged/muted by pressing Power Acknowledgement button provided on the panel. The time of power failure and resumption is to be recorded in the Power Failure Register. Details in APPENDIX-B (12).

5. **TELECOMMUNICATION**

- a) The following telecommunication facilities are provided at Gitanjali Station:
Station Superintendent's -Railway Auto Phone.

Sr.TS/TS (Shift-in Charge) : Railway Auto Phone , BSNL Phone, SCR Phone & Public Address System.

TS/Sr.TA (Panel): Block Magneto Phone, Section Control Phone and. Railway Auto Phone.

The order of preference of the means of communication is as follows:-
Block Magneto Phone, Railway Auto Telephone & Control Phone

- b) **In case of Failure of Telephones the following officials should be promptly reported–**

Controller on duty, Signal & Telecommunication Maintenance Staff and
SS / Sr.TS/TS of concerned station

Telephone	Maintained by
Block Magneto	JE/S/MUK
Railway Auto	JE/T/MUK
SCR	JE/T/MUK
BSNL	First Docket ,then Register with JE/Tele /HQ

6. **SYSTEM OF TRAIN WORKING**

Automatic Block System of working using double line panel interlocking with three aspect colour light signaling.

6.1 TRAIN WORKING STAFF IN EACH SHIFT

Sl.No.	Category	Total no. of working staff
1.	Station Superintendent (General shift)	1
2.	Sr.TS/TS (Shift In charge)	1 in each shift
3.	TS/Sr.TA (Panel Operator)	1 in each shift
4.	Points man	1 in each shift

6.1.2. RESPONSIBILITY FOR ASCERTAINING CLEARANCE OF THE LINES AND ZONES OF RESPONSIBILITY

- i) One Pilot train will run every day on Up & Down line respectively before commencement of the commercial Services of the day, to ensure that the line is free from obstruction and safe for running of trains carrying passengers. The pilot train will run on Caution Order at 25 kmph speed and will be manned by JE(P.Way),WTM(Tele) and JE(3rd Rail) for necessary checking on their respective items for safe running of Commercial train services. The officials of respective departments shall check their items and ensure that the track is free from obstructions. In case of any unusual thing is noticed they will report immediately to Control and actions taken accordingly.
- iii) **Private Number** Books will be issued by SS / **Gitanjali** either from the Sectional Traffic Inspector or from COM's office. Private Number Books shall be kept in the personal custody of TS/Sr.TA (Panel) at **Gitanjali** Private Number shall be exchanged when necessary as per rule in force.
- iv) **ID Number**-No ID no. is used in Kolkata Metro.

6.1.3 ASSURANCE OF STAFF IN "THE ASSURANCE REGISTER"

Every train passing staff posted newly at the station or Leave Reserve staff at the Station or regular staffs who has resumed his duties after more than 15 days absence must go through Station Working Rules in force and give assurance in the prescribed "**Assurance Register**".

The Station Superintendent of the station shall be responsible for the maintenance of such Assurance Registers and for obtaining such declaration from the staff in accordance with SR. 2.01(2&3).

(A) ASSURANCE REGISTER – CLASS – III**DECLARATION**

I, Shri _____ Designation _____ have read the Station Working Rules of Gitanjali Station dated _____ together with Appendices A-G dated _____ respectively and have also carefully studied the SWR Diagram No. _____ Dated _____ and do hereby declare that I have thoroughly understood the SWR and can work independently as a _____ at Gitanjali Station.

M.Mahli
Dy.COM (Safety)

Signature with date

A.S.Tomar
Dy.CSTE (C)

CERTIFICATE

I have examined Shri _____ Designation _____ in his knowledge of the Station Working Rules of Gitanjali Station dated..... together with Appendices A-G dated _____ respectively and also his knowledge of the SWR Diagram No. _____ dated _____ and found him thoroughly conversant with the rules.

I consider him fit to work independently as a _____ at Gitanjali station.

Signature of Certifying official with date

(B) ASSURANCE REGISTER – CLASS – IV
DECLARATION

The Station Working Rules of Gitanjali Station Dated _____ together with the Appendices A-G dated _____ respectively and also the SWR Diagram No. _____ Dated _____ so far as they relate to my duties have been read over and explained to me in vernacular by Shri _____ Designation _____ and hereby declare that I understood them thoroughly.

I can now work independently as a Points man at NAKTALA Station.

Signature and date

CERTIFICATION

The station working rules of Gitanjali Station dated _____ together with the Appendices A-G dated _____ respectively and also the SWR Diagram No. _____ dated _____ so far as they relate to his duties have been read over and explained to Shri _____ Designation _____ in vernacular and have been understood by him thoroughly.

I consider him fit to work independently as a Points man at Gitanjali station.

Signature of Certifying official with date

6.1.4 Competency Certificates

- a) All the staff concerned with the Train Passing duty shall have a Competency Certificate issued by the Competent Authority, that he has been tested in Panel working & train passing duty and has been certified fit to undertake such duty.
- b) All the Group-C staff shall have a Competency Certificate issued by the competent authority that he has been trained in **First Aid** and has qualified himself in such training.
- c) All the Group-C staff and as many Group-D staff as possible shall have a Competency Certificate issued by the Competent Authority that he has been trained in **Fire Fighting** and has qualified himself for attending Fire Fighting.

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- d) It shall be the responsibility of the Station-in-charge to ensure that the above rules are complied with. If a staff does not have the **Competency Certificate** as laid down above except under (a), he shall be sent for such training at the earliest possible date and shall not be taken back to duty till he is qualified. { **GR-8.04 & SR 8.04(1) & SR 8.04(2)** }

6.2 ANY SPECIAL CONDITION TO BE OBSERVED WHILE RECEIVING OR DISPATCHING A TRAIN

6.2.1. Setting of Points against blocked line – There is no point and crossing at this station.

6.2.1.1. Reception of train on **Blocked line**--GR 4.30, 7.25(2), and SR 4.30(2) & 7.25(2).

6.2.1.2 Reception of train on **Non-Signaled** line –**NIL**

6.2.1.3 Despatch of train from **Non-Signaled** line-**NIL**

6.2.1.4 Despatch of train from line provided with Common Starter-**NIL**.

6.2.1.5 Special conditions to be observed:-

- a. Despatching a train while SA-3063 & SA-3064 are failed– O&M/T-3B SR 7.25 & para 8.3 & 9.3 of appendix-B
- b. A train started without Authority to proceed- GR 6.11 & SR 6.11 (5)
- c. Despatching a train during Total Interruption of Communication- GR 7.24 and SRs thereto.
- d. Indirect Reception – para 8.3 of Appendix-B
- e. Reception Signal failed –GR 3.42 & SR 3.42 (3) & GR 7.25
- f. Despatch of train during single line of working on a double line section –GR 7.24 and SRs thereto.
- g. Despatch of train during One Train only system – GR 7.10.
- h. Reception of train arriving - GR 7.23 & SR and GR 8.15(3), SR 8.10(2).

6.3. CONDITION FOR 'TAKING OFF' STOP SIGNALS:

Both Down and UP running lines movements of trains are governed by Automatic / Semiautomatic and manual stop signals. These signals are controlled by Digital Axle counter sequence of track sectional operation. Semi-Automatic Signal is worked as an automatic stop signal, as per GR 7.21 & 7.28. In case of Semi-Automatic stop Signal is working as a Manual Stop signal, the signal shall not be 'taking off', unless the line is clear not only up to the next stop signal in advance, but also for an adequate distance beyond it. The concerned axle counters are not showing occupied condition.

6.4 COMPLETE ARRIVAL OF TRAINS

In case of failure of Automatic Signalling system, the complete arrival of train is to be ensure by the panel operator at receiving end and condition for granting line clear should be fulfill for the next train.

6.5. TRAINS RUNNING THROUGH

Normally, all trains stop at this station and there is no running through train. However, in case of necessity, train can run through this station, as per order of Section Controller in accordance with GR 4.08, then condition of reception and

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despatch of a train are to be fulfilled. Repeated announcement for passengers should

be done through Public address system at the station by the Shift-in-charge alerting passengers to stand clear of White/Yellow border at the edge of the platform and that the train will pass through without stopping at this station.

6.6. WORKING IN CASE OF FAILURE

As detailed below:

- i) Despatch & Reception Signal Failure--Appendix –"B"
- ii) TA/Sr.TA of the sending station before executing the resetting of any faulty track section should first convert the Semi Automatic Signal, just in rear of the faulty track section, to manual signal and must ensure that there is no vehicle in the concerned track section(s) by exchanging Private Number with the TS/Sr.TA at the receiving end. Acknowledgement of Section Controller is required therewith. Reset procedure details in Appendix –"B"
- iii) Reception & Despatch of Train, when the semi Automatic Signal is required to work as Manual signal, the Signal button is to be press along with concerned 'Auto cancel' button and illuminated 'A' marker will extinguish. At that time the train is brought to a stand at the foot of the stop Signal, and then piloted in by showing Green Hand Signal/Green light from the end of Platform. Conversion of Semi Automatic Signal(s) to manual stop Signal(s) is to be avoided when a train is approaching it except emergency and details follow GR 7.23 & SRs thereto.

6.7. PROVISION FOR WORKING OF TROLLYS / MOTOR TROLLYS / MATERIAL LORRIES:

A trolley or lorry shall not be placed ON RUNNING LINE unless the possession of the track has been taken over by the Engineering Official in-Charge and Third Rail Power supply has been switched off by the TPC in accordance with GR 9.14 and SR 9.14(1) & (2),9.14(5)(b).

7. BLOCKING OF LINE

Not permitted.

8. SHUNTING:

- i) General Precautions – Normally, shunting is not permitted.
- ii) Shunting in face of approaching train – Strictly prohibited- GR 7.16.
- iii) Shunting in the Siding -- Not Applicable

9. ABNORMAL CONDITIONS: THE RULES TO BE OBSERVED IN THE EVENT OF ABNORMAL CONDITIONS:

(a) The procedure to be followed in the event of following abnormalities:-

- i) In the event of total failure of communication train shall run under "Authority to Proceed" as per. ---- (GR 7.24 & SR).
- ii) In case of obstruction / accident etc between two adjacent station, the assisting train will proceed up to the site of obstruction under "Block Line Ticket"

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and detailed instructions in this regard are to be given in the caution order. {GR 7.02(2) and SR 7.02}.

- iii) Failure / passing of Automatic stop signal at 'ON' – GR 7.19
- iv) Failure of Multi Section Digital Axle Counter –Appendix – "B"
- v) Failure of Mobile Train Radio Communication (MTRC)--GR 7.23 & SR 7.23(2).

(b) CERTIFICATION OF CLEARANCE OF TRACK BEFORE CALLING ON SIGNAL OPERATION IS INITIATED:

No Calling ON Signal has been provided at this Station.

(c) REPORTING FAILURE OF AXLE COUNTER / SIGNAL AND INTERLOCKING:

- i) In case of Failure of Axle Counter / Signal and interlocking the following officials should be promptly reported to
 - 1. SSE/JE/Signal maintainer on duty at MUK.
 - 2. Section Controller
 - 3. Panel Operator of both end adjacent station.
 - 4. SS /Sr.TS/TS of concern station.

The signal maintainer after rectification of the fault TS/Sr.TA panel on duty should restore the normal working in accordance with GR 3.42, 3.43, 8.10 and SRs thereto. The failure should be recorded also in the "**Signal Failure Register (S -124)**" with **message to the Section Controller.**

ii) Issue of Signal Failure Memo.

In case of failure of any point/signal/gear of a station it should be immediately reported to Central Control, Metro Rail Bhawan, Kolkata. Section Controller on duty at the Metro Rail Bhawan will immediately inform about the failure to shift ESM /DMI and shift JE (Signal)/MUK for the failures between DumDum to Central including Noapara and to JE (Signal)/MUK for the failures between Esplanade to Kavi Subhash including MUK/RRI. The failure is also to be reported by the on duty Shift-in-charge/panel operator to S&T staff over phone and/or through PA system. Before arrival of SSE//JE(Signal)/ESM/MSM the on duty Shift-in-charge/panel operator will keep the **Signal failure Memo** ready. The following items are to be filled up in the failure memo.

1. Memo No:-

The SL NO. of the failure is to be maintained monthwise. SL No. and month is to be written in the following manner:

2/1 5/1 7/5 13/12

In the above example 2/1 indicates 2nd failure during the month of January and 13/12 indicates 13th failure during the month of December.

- 2. Date time and nature of failure are to be correctly recorded in the Memo.
- 3. The Memo is to be signed by the on the duty SS/Sr.TS/TS/Sr.TA and SSE/SE/JE (Signal)/ESM/MSM putting date and time in the relevant columns.
- 4. The Memo to be prepared by means of carbon process. The pencil copy is to be

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handed over to an authorized S&T official and the carbon copy will be kept as station record.

5. Maintenance of relay room key registers. Signal Failure Register, Disconnection / Re-connection Register, Veeder counter Register etc. will continue as usual.

A sample copy of the signal / point/ gear failure memo as under.

**METRO RAILWAY
KOLKATA**

SIGNAL FAILURE MEMO.

Station: _____

To

SSE/SE/JE(Signal)/ESM/MSM

The following: _____ point/signal/gear failed at _____ hrs on _____

Central Control Metro Rail Bhawan, Kolkata has been informed over phone at _____ hrs on _____

Please attend and rectify the failure.

Signature of SSE/SE/JE(Signal)/ESM/MSM

Signature of SS/Sr.TS/TS/Sr.TA

Date: -

Date: -

Time: -

Time: -

9.1 TOTAL FAILURE OF COMMUNICATION:

Failure of Automatic Signals likely to last for some time and cause serious delay, when no means of communications are available – SR 7.23(2)

9.2 TEMPORARY SINGLE LINE WORKING ON DOUBLE LINE SECTION:

In case of any running line is obstructed due to any reason, the train shall be run “One Train Only System” by another running line which is free of all obstruction in accordance with GR 7.09 and SR thereto.

9.3 DESPATCH OF TRAIN UNDER AUTHORITY TO PROCEED WITHOUT LINE CLEAR OR UNDER BLOCK LINE TICKET TO ASSIST THE CRIPPLED TRAIN:

- (i) Despatch of train on **Blocked line**--GR 4.30, 7.02 (2), 8.06(c) (ii) and SR 4.30(2) & 7.02.

10. VISIBILITY TEST OBJECT:

- (i) **Visibility Test Object:** Signal aspect of both Up and Down Despatch signals will be treated as Visibility Test Object.
- (ii) Panel Operator of Gitanjali station will stand at the MUK end of UP platform in case of assumed Fog and will observe visibility of Down Starter Signal, which were marked as VTO. If there is not visibility due to fog, he should immediately pass on a

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message to Central Control, Metro Rail Bhavan under exchange of Private number.

- (iii) After getting message from the on duty Panel Operator of a station , Section Controller on duty will arrange to issue Caution Order to Motormen of a running train through Panel Operator of the Rear station or from a Notice station indicating “ Fog appeared between To..... Stations. Please pass cautiously & be vigilant enough to stop short of any obstruction” in form no. O&M/T-2 until further advice.
- (iv) As soon as fog disappeared the Panel Operator of the same station who informed regarding fog will issue another message to Central Control at Metro Bhavan under exchange of Private Number.

11 ESSENTIAL EQUIPMENTS AT THE STATION:

Please see Appendix –:"E"

12. FOG SIGNAL MEN NOMINATED TO BE CALLED IN CASE OF FOG

No Fog signalman has been nominated.

13. CERTIFICATE

Nothing in these rules shall be read as canceling, amending or modifying any GR & SR. These rules cancel all previous station working rules.

LIST OF APPENDICES

APPENDIX "A" WORKING OF LEVEL CROSSING GATES

APPENDIX "B" SALIENT FEATURES OF SIGNALLING AND INTERLOCKING SYSTEM.

APPENDIX "C" ANTI COLLISION DEVICE (RAKSHA KAVACH)

APPENDIX "D" DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT

APPENDIX "E" LIST OF ESSENTIAL EQUIPMENTS PROVIDED AT THE STATION

APPENDIX "F" RULES FOR WORKING OF DK STATIONS, HALTS, IBH, IBS AND OUTLYING SIDINGS

APPENDIX "G" RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS.

[To be jointly signed by Dy.COM / Safety, Dy.CSTE (C), Dy.CEE/M & Sr.DEN]

(M.Mahli)
Dy .COM/Safety

(A.S.Toma)
Dy.CSTE(C)

(A.Roy)
Sr.DEN

(C.N.Singh)
(Dy.CEE/M)

M.Mahli
Dy.COM (Safety)

A.S.Tomar
Dy.CSTE (C)

Appendix – “A”

WORKING OF LEVEL CROSSING GATES

There is no Level Crossing Gates within the Station Limit

(M.Mahli)
Dy .COM/Safety

(A.Roy)
Sr.DEN

APPENDIX – B

SALIENT FEATURES OF SIGNALLING AND INTERLOCKING SYSTEM AT GITANJALI STATION.

1. General

- 1.1 Gitanjali station is 'Spl' class standard-II panel interlocked, provided with three aspect colour light signals with Automatic Block Working System on the section between Mahanayak Uttam Kumar to Kavi Subhash of which one Up and one down line are having unidirectional movement which are controlled by Digital Axle counter sequence of track sectional operation. An operation cum indication panel is situated in the TS/Sr.TA's panel room on the platform.

2. Description of Control Panel

- 2.1 An operation cum indication control panel is provided in the TS/Sr.TA Panel Room. This panel shows complete layout of the yard, Axle counter areas, position of Semi-Automatic, Automatic Stop signals, illuminated 'A' marker, Auto Set Button, Auto Cancel Button, Signal Restoration Button, Power Acknowledgement Button, Buzzer muting button, Cancellation counters etc. of the station. Axle counter Sections are shown in different colour.
- 2.2 The panel is also provided with TS/Sr.TA's Key which is used to lock the panel and thereby to prevent use of the panel by unauthorized persons. When the panel is locked, the routes are locked in pre-set position. Any interference by outsiders, on the panel, would not change the position of the route. However, a signal will automatically restore to danger as soon as the train passes the signal and the signals automatically take off after the automatic signalling section ahead of the signal become clear.

The colour scheme employed for the buttons on the panel is as under:

Signal button	:	Red
Destination button	:	White
Signal restoration button	:	Red
Buzzer muting button	:	Green
Auto Set Button	:	Gray
Auto Cancel Button	:	Red
Power Acknowledgement Button	:	Blue

3. Signal

3.1 Semi Automatic Signal

A signal which is capable of being worked as a manual stop signal as well as an automatic stop signal is known as semi-automatic signal. An illuminated 'A' marker is provided under this signal. This Signal is controlled by Multi Section Digital Axle Counter and other respective controlling agency. When the 'A' is extinguished, the signal shall be deemed to work as a manual signal.

A manual stop signal is converted into an automatic stop signal by pressing the 'Auto Set button' along with the concerned Signal button and illuminated "A" marker is lit. Before conversation from manual to auto signal, concerned route is to be initiated first of the said signal. When 'Auto Cancel button' along with Signal button is

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pressed, the concerned Auto signal is converted into manual signal and also illuminated “A” marker is extinguished. This principle is adopted to convert a manual stop signal into an automatic stop signal. SA-3062, SA-3064, SA-3061 & SA-3063 are semi Automatic stop Signal.

3.2 **Automatic Signal**

An automatic stop Signal is provided with an ‘A’ marker in black letter on white circular disc, on the signal post below the signal unit. AS-2966, AS-3162, AS-3163 & AS2961 are Automatic stop Signal. Automatic stop signal can not be used as manual stop signal.

4 Function of the buttons/switches are as follows:

4.1 **Signal Buttons**

Signal Button	Controls gear	Function of button
SA3062	Semi Automatic Stop Signal No. SA 3062 on DN line	When pressed along with destination button D-3062, sets route from Semi Automatic Stop Signal No. SA 3062 to Semi Automatic Stop Signal No. SA 3064 including overlap.
SA3064	Semi Automatic Stop Signal No. SA 3064 on DN line	When pressed along with destination button D-3064, sets route from Semi Automatic Stop Signal No. SA 3064 on DN line to next Automatic Stop Signal no. AS 3162 including overlap.
SA3061	Semi Automatic Stop Signal No. SA 3061 on UP line	When pressed along with destination button D-3061, sets route from Semi Automatic Stop Signal No. SA 3061 to Semi Automatic Stop Signal No. SA 3063 including overlap.
SA3063	Semi Automatic Stop Signal No. SA 3063 on UP line	When pressed along with destination button D-3063, Sets route from Semi Automatic Stop Signal No. SA 3063 on UP line to next Automatic Stop Signal no. AS 2961 including overlap.

4.2 **Destination Button**

Nomenclature

Function

D-3062 For reception of DN train on DN Platform from Masterda Surya Sen

D-3064 For dispatch of DN train from DN Platform towards Kavi Nazrul

D-3061 For reception of UP train on UP platform from Kavi Nazrul

D-3063 For dispatch of UP train from UP platform towards Masterda Surya Sen

4.3 **Miscellaneous Buttons/Switches**

4.3.1 **Signal Restoration Button**

For cancellation of a route/restoration of a signal, this button should be pressed simultaneously along with signal button of the concerned signal.

4.3.2 **Buzzer muting button**

Buzzer/Bell starts when a train enters into the approaching automatic

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Signalling section. Buzzer/Bell will stop by pressing the buzzer muting button or taking off Semi Automatic reception signal.

4.3.3 **Auto Set Button**

When the Semi Automatic Signal is required to work as Automatic Signal, this button is to be pressed along with concerned Signal button after initiating the route of the concerned signal and illuminated 'A' marker will lit.

4.3.4 **Auto Cancel Button**

When the Semi Automatic Signal is required to work as Manual Signal, this button is to be pressed along with concerned Signal button and illuminated 'A' marker will extinguish. Separate counters are provided on the panel for recording every change over from Automatic to Manual of the concerned signal.

4.3.5 **Power acknowledgement button**

Normally signal supply is fed from the main supply, when the main supply fails, power supply shall be changed to auxiliary power by operation of Auto-Manual power change over system. In case there is failure of 'Main' or 'Auxiliary' supply whichever in circuit, bell rings. The bell will stop by pressing power acknowledgement button.

5 **Axle counter**

Multi Section Digital Axle Counter (MSDAC) is provided on both UP & DN line through out the section.

5.1 **Axle counter Indication:**

- 5.1.1 In case of occupancy or failure of any Track Section (TS), red indication will appear on the panel for the concerned TS.
- 5.1.2 In case of clear condition of the Track Section (TS), green indication will appear on the panel for the concerned TS.

6 **Operation of Multi Section Digital Axle Counter reset console**

- 6.1 'Multi Section Digital Axle Counter' is provided for the entire section which divided into a nos. of track sections as per requirement. 'MSDAC reset Box' and Line verification (LV) box is used for resetting the track sections.

6.1.1 **Resetting**

In Multi Section Digital Axle Counter, resetting is applied by the panel operator with simultaneous co-operation from other end using line verification (LV) box. The operator must ensure before executing the reset, that there is no vehicle in the concerned Track Section/Sections.

6.1.2 **Conditional Preparatory Resetting**

For Preparatory Reset is assigned for a particular Automatic Block section. If Preparatory Reset is applied to a particular section, the section does not get clear immediately. On receipt of the reset command, if there is no persisting technical fault in the section and the last count was out count then only Central Evaluator provides the 'Reset acceptance' command to MSDAC. On reception of reset acceptance command small green LED of preparatory reset will glow on MSDAC

Reset box. After that a train has to pass through the section and the count IN and OUT of the section is equal the section gets clear.

6.1.3 **Conditional Hard Resetting**

For Station area conditional hard reset is assigned for a particular track section. If conditional hard reset is applied to a section, the section gets clear immediately if last count of the section was out count and there is no persisting technical fault in the section.

6.1.4 **Location and Identification**

A Reset Box nominated for each Axle Counter section (i.e. the portion of track nominated by Axle Counter) is located in the Reset Panel in the Panel Room of the Sending Station and line verification (LV) box is provided in the receiving station. For station area section, Reset box and line verification (LV) are provided in the same station. But LV box is provided in the suitable place at site.

6.1.5 **Description and use of Reset Box and Reset Panel**

Each Multi Section Digital Axle Counter Reset Box comprises of the following components and indications:-

- i) Reset Push Button.
- ii) Preparatory Reset indication- Small Green LED
- iii) Line verification indication- Yellow LED
- iv) Section clear indication- Green LED
- v) Section occupied indication – Red LED
- vi) Reset counter

The Reset panel has one SM's Key module that consists of

- i) SM's Key
- ii) Power On indication – Yellow LED
- iii) Buzzer

The SM's Key acts as the common Key for reset boxes in operation for a particular installation. The power on LED indicates the reset panel is powered on. The buzzer is provided to give audio indication that the reset pulse is on.

6.2 **Steps to be followed to carry out conditional Preparatory Reset**

If a section is in disturbed state, Section occupied indication (Red LED) glows on the corresponding reset box.

- i) At the receiving end, TS/SrTA must ensure before executing the reset, that there is no vehicle in the concerned Track Section/Sections.
- ii) TS/SrTA establishes communication with the other end through available means of communication.
- iii) At the receiving end, TS/SrTA inserts the Line Verification Key into the Line Verification Box associated with the disturbed section turns it clockwise and keeps it pressed. The Line Verification Indication glows (Yellow LED) on the Reset Box of the sending end.
- iv) At the sending end, TS/SrTA inserts the SM's Key in the SM's Key module of the reset panel & turns it clockwise, keeps the key pressed and

then pushes the Reset Push Button on the Reset Box of the concerned track section.

- v) Resetting must be co-operative and simultaneous.
- vi) The Buzzer sounds for 3 – 4 seconds and stop.
- vii) The six digit reset counter on the reset box gets incremented by one number.
- viii) The preparatory reset indication (Small Green LED) comes on indicating that the section has accepted preparatory reset and is waiting for a through train movement.
- ix) At the sending end the SM's Key is turned anti clockwise & taken out and he is informed about the acceptance of preparatory reset to the receiving end.
- x) At the receiving end, TS/SrTA releases the line verification key and turns it anti clockwise & taken out.
- xi) As the train passes through the section (with equal number of in-count and out-count of axles), the vital relay monitoring the disturbed section gets picked up. The section clear indication (Green LED) on the reset box comes on and the section occupied indication (Red LED) on the reset box extinguishes.

6.3 **Steps to be followed to carry out Conditional Hard Reset**

If a section is in disturbed state, Section occupied indication (Red LED) glows on the corresponding reset box.

- i) TS/SrTA must ensure before executing the reset, that there is no vehicle in the concerned Track Section/Sections.
- ii) An authorized person/TS/SrTA himself inserts the Line Verification Key into the Line Verification Box associated with the disturbed section, turns it clockwise and keeps it pressed. The Line Verification Indication glows (Yellow LED) on the Reset Box.
- iii) On getting the line verification indication on the reset box TS/SrTA inserts the SM's Key in the SM's Key module, turns it clockwise, keeps the key pressed and then pushes the Reset Push Button on the Reset Box of the concerned track section.
- iv) The Buzzer sounds for 3 – 4 seconds and stop.
- v) The six digit reset counter on the reset box gets incremented by one number.
- vi) The vital relay monitoring the disturbed section gets picked up immediately. The section clear indication (Green LED) on the reset box comes on and the section occupied indication (Red LED) on the reset box extinguishes.
- vii) The SM's Key is turned anti clockwise and taken out. The line verification Key is turned anti clockwise and taken out. The line verification indication (Yellow LED) on the reset box extinguishes.

6.4 **Supervisory Reset**

Supervisory Reset Box and Supervisory line verification Box is provided on the sending and receiving station respectively. Supervisory Reset Box and Supervisory line verification Box are as same as preparatory reset box. It is common for two or three track sections as the case may be. Each track section having an auto box, provided on the sending station panel room having two indications Red and Green. No manual involvement is required for auto box. If one track section within supervisory section is failed, the faulty track section gets clear immediately provided the supervisory section is in clear condition.

6.5 **Steps to be followed to carry out Supervisory Reset**

If supervisory failed, same steps to be followed as conditional preparatory reset as given below:

- i) At the receiving end, TS/SrTA must ensure before executing the reset, that there is no vehicle in the concerned Track Section/Sections.
- ii) TS/SrTA establishes communication with the other end through available means of communication.
- iii) At the receiving end, TS/SrTA inserts the Line Verification Key into the Line Verification Box associated with the disturbed section turns it clockwise and keeps it pressed. The Line Verification Indication glows (Yellow LED) on the Reset Box of the sending end.
- iv) At the sending end, TS/SrTA inserts the SM's Key in the SM's Key module of the reset panel & turns it clockwise, keeps the key pressed and then pushes the Reset Push Button on the Reset Box of the concerned track section.
- v) Resetting must be co-operative and simultaneous.
- vi) The Buzzer sounds for 3 – 4 seconds and stop.
- vii) The six digit reset counter on the reset box gets incremented by one number.
- viii) The preparatory reset indication (Small Green LED) comes on indicating that the section has accepted preparatory reset and is waiting for a through train movement.
- ix) At the sending end the SM's Key is turned anti clockwise & taken out and he is informed about the acceptance of preparatory reset to the receiving end.
- x) At the receiving end, TS/SrTA releases the line verification key and turns it anti clockwise & taken out.
- xi) As the train passes through the section (with equal number of in-count and out-count of axles), the vital relay monitoring the disturbed section gets picked up. The section clear indication (Green LED) on the reset box comes on and the section occupied indication (Red LED) on the reset box extinguishes.

6.6 **Records**

The reading of the Reset Box Counters before and after Resetting and the number and description of train Dealt with before and after the actual resetting should be entered by the Panel operators at their respective Axle Counter Resetting Register, which will have the following Performa:

Sr. No	To certify Clearance of Section, Private Number		Axle Counter Reset by Panel Operator on duty		Reading of Reset Counter at this Station	
	Given	Received	Date	Time	Before resetting	After resetting
1	2	3	4	5	6	7

Reading of Reset Counter at far end Station		No. and description of the train admitted / dispatched before resetting	No. and description of the train admitted / dispatched after resetting	Signature of panel Operator on duty.
Before resetting	After resetting			
8	9	10	11	12

7 **Working of Semi Automatic Signal**

7.1 Down Reception Signal no. SA 3062, Down Despatch Signal no. SA 3064, UP Reception Signal no. SA 3061 and Up Dispatch Signal no. SA 3063 are Semi Automatic Signals. Whenever it is intended to work the Semi Automatic Signal as Automatic Signal, the route is to be initiated first by pressing the concerned Signal & Destination button and then 'Auto Set button' is pressed along with concerned 'Signal button'. This will convert the said signal from 'manual' to 'auto' mode and illuminated 'A' marker will lit at site and repeated on the panel.

Whenever a Semi Automatic signal is intended to work as manual signal from automatic signal, by pressing 'Auto Cancel button' along with concerned 'Signal button' and keep its press until indication of illuminated 'A' marker is extinguish. This will convert the said signal from 'auto' to 'manual' signal. The aspect of the concerned signal will remain as it was depending upon the signals ahead. For cancellation of the route of the Semi Automatic Signal, at first the concerned signal will have to be transferred from 'Auto mode' to 'Manual mode' by pressing 'Signal button' and 'Auto cancel button' simultaneously and then 'Signal restoration button' will be pressed along with the concerned 'Signal button'. Aspects of the concerned signal immediately go back to danger and route strip indication will be extinguished. Cancellation is prohibited in face of the approaching train except an emergency.

One example given bellow:

To convert down reception Signal SA-3062 into Automatic Signal follows the steps:-

- i) Press SA-3062 and D-3062 button simultaneously and release.
- ii) Route and Signal will appear.
- iii) Press 'Auto Set Button' and SA-3062 button simultaneously and release.
- iv) Illuminated 'A' marker light will lit at site as well as operating panel.

To convert down reception Signal SA-3062 into Manual Signal follows the steps:-

- i) Press 'Auto Cancel button' and SA-3062 Signal button simultaneously.
- ii) Keep its press until indication of illuminated 'A' marker is extinguish.
- iii) SA-3062 Signal cancellation counter will register a next higher number.

7.2 **Records for Auto Signal Cancellation**

Signal cancellation counters are provided on the panel for each Semi Automatic Signal for recording every cancellation of Auto Signal, the concerned counter will register a next higher number. A Signal cancellation register shall be maintained at the panel room by the on duty panel operator for recording the Auto Signal cancellation particulars and counter number.

Proforma for Auto Signal cancellation Register:

Sl No	Date & time of Auto Signal cancellation	Signal No .	Number in the counter before operation	Number in the counter after operation	Reason for cancellation	Signature of on duty panel operator	Remarks if any, of panel operator or any inspecting authority
1	2	3	4	5	6	7	8

8 **Failure Indication**

8.1 **Signal**

If all the aspects i.e. green, yellow & red fail to light up; there will be no light indication for the signal on the panel.

8.2 **Illuminated “A”**

If the illuminated “A” marker fails to light up, indication of the same will start flashing on the panel.

8.3 **Failure of Semi Automatic Signal**

If the illuminated “A” marker of a semi automatic signal fails to light up and aspect of the concerned signal is red, at that time the concerned signal will be treated as absolutely as a manual stop signal. In case of dispatch signal, the panel operator shall issue a written authority in prescribed form (O & M / T-3B) and handed over to the motorman for passing the concerned dispatch signal at danger upto the next automatic stop signal with restricted speed. In case of reception signal, the panel operator shall depute his points man to display green hand signal/green light from the edge of the platform to the driving motor man to enter into the platform with restricted speed.

8.4 **Track Indication**

Normally there will be no indication if tracks are free. When route has been set yellow strip lights will appear on the concerned route. In case of failure or occupation of the track, red strip lights will appear irrespective of route setting.

8.5 **All Button Normal Indication**

Normally there will be no indication on the panel. When any button is stuck up or in pressed condition, a green light will appear on the panel and buzzer will sound. The buzzer stops when the buzzer muting button is pressed but indication will remain until the concerned button gets released.

8.6 **Signal Light**

When any off aspect of a signal fails to light up, the next less restrictive aspect will lit at site and the same indication of the said signal appear on control cum indication panel. When both green & yellow aspect of a signal does not lit, the red aspect will lit at site.

8.7 **Defective Auto Signal**

The Auto Signal shall be treated as defective when:-

- i) No light is displayed,
- ii) More than one aspect are displayed simultaneously,
- iii) If axle counters of the section are defective,
- iv) Normal sequential change of aspect does not take place.
- v) The Auto Signal does not go back to ON position (Red aspect) automatically after the train has passed the signal.

8.8 **Reporting of Auto Signal failure:**

In case of failure of automatic stop signal the driving motorman shall report to controller on duty over train radio communication and follow rule G.R 7.19. Controllers on duty shall promptly report the failure to the station shift-in-charge of the panel interlocked station in rear and in advance of the signal in question and also report to signal official concerned.

9 **Action by TS/ Sr TA when Semi Automatic/Automatic Signal is defective**

- 9.1 The TS/SrTA of the station, on noticing that the Semi Automatic/Automatic Signal is defective, shall take action in accordance with G.R. 3.42 and S.R's. 3.42 (3).
- 9.2 The TS/Sr.T.A. Panel shall inform the Traffic Controller about the defective condition of the signal and he will depute a Points man to display green hand signal from the platform edge to the driving motorman of the approaching train. The driving motorman will then enter the station with his train with great caution so as to stop short of any obstruction.
- 9.3 In case of dispatching Signal is defective, the panel operator shall issue a written authority of prescribed form (O & M / T-3B) and handed over to the motorman of a train for passing the concerned signal at Danger up to the next automatic stop signal with great caution speed so that he will able to stop his train short of any obstruction.
- 9.4 The TS/Sr.T.A. panel will report regarding Signal failure to the Signal maintainer in charge, for necessary attention.
- 9.5 All failures shall be recorded in the Signal Failure Register, by the TS/Sr.T.A panel.

10 **Action by Driving and Conducting Motorman when Automatic Stop Signal passed at 'ON'**

- 10.1 When a Driving Motorman finds an automatic stop signal with an 'A' marker at 'ON', he shall bring his train to a stop in the rear of the signal and after bringing his train to a stop in the rear of the signal, the Driving Motorman shall wait there for one minute by day as well as night and for two minutes when visibility is impaired due to thick foggy/dusty and other types of bad weather and if, after waiting for this period, the signal continues to remain at 'ON', he shall give prescribed code of whistle and exchange signals with the Conducting Motorman and then proceed ahead, as far as the line is clear, towards the next Stop signal in advance exercising great caution so as to stop short of any obstruction.
- 10.2 The Conducting Motorman shall activate the 'Yellow' flashing back light as per advice of the Driving Motorman when the train has been so stopped at Automatic Stop Signal.
- 10.3 The Driving Motorman before proceeding ahead shall inform traffic controller on duty about the situation with reference to the signal
- 10.4 When an Automatic Stop Signal has been passed at 'ON' (Red aspect), the Driving Motorman shall proceed with great caution until the next stop signal is reached and even if this signal is 'Off' (yellow or green aspect), the Driving Motorman shall continue to look out for any possible obstruction short of the same. He shall proceed cautiously up to that signal and shall act upon its indication only after he has reached it.

11 **Activities and attending to Signal failure**

For attending to Signal failure, the on duty panel operator of the station should issue Failure Memo to the Signal Maintainer in prescribed format. In case, the relay room is required to be opened for attending to signal failure, the Signal Maintainer should sign in the relay room key register for taking the relay room key. If required he should issue disconnection memo in prescribed format and the on duty panel operator should accept the same. After rectification of the failure, the Signal Maintainer should issue re-connection memo.

12 **Power failure**

- 12.1 In the Relay room, an Auto-cum-Manual change over switch is provided to which 415V 3 phase AC Main and Auxiliary supplies are connected to feed the signalling circuitry. Red, Yellow and Blue illuminating indications for each phase of Main and Auxiliary supplies are lit as per availability of power supply in the respective phases.
- 12.2 When both Main and Auxiliary supply fail, feed to signalling gears is extended from IPS connected to the power supply system for a specified back up time after which signals become 'No light'. The failure of power supply will be indicated by a red light and an audible alarm (buzzer) provided in the panel. The TS/Sr.TA on duty shall record the time of power failure and acknowledge / mute the buzzer by pressing the power acknowledgement button. The TS/Sr.TA on duty shall immediately inform the Traffic Controller and S&T maintenance staff.
- 12.3 When main power supply fails, change over to auxiliary power supply takes place automatically within 10 seconds if Auto/ Manual selector switch is kept in 'Auto' mode. If change over does not take place automatically then TS/Sr.TA on duty shall inform it to S&T maintenance staff immediately.
- 12.4 Time of resumption of power is also to be recorded in Power Failure Register.

APPENDIX – ‘C’

ANTI COLLISION DEVICE (RAKSHA KABAVACH)

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APPENDIX-“D”**DUTIES OF TRAIN PASSING STAFF AND STAFF IN EACH SHIFT.****1. Station Superintendent:**

The Station Superintendent is the over all In-charge of the station. He/she will supervise all working (Security, Safety, Operations, Commercial matters & cleanliness) of his/her station. He/she will discharge /her duties in accordance with GR-Chapter-II and GR-5.01, 5.02, 5.03, 5.04, 5.05, 5.06, 5.07, 5.08, 5.09, 5.10, 5.11, 6.04 & 8.09 and SRs thereto. He/she is responsible for ensuring that the station premises are not misused for any vending and un-lawful activity.

He is responsible for ensuring:-

- i) That earnings of his /her station accounted for and deposited correctly, periodical returns and statement etc. are prepared and submitted in time.
- ii) That all the accidents and failures are promptly reported and rectified and periodical statement with details is sent to Dy.COM / Metro Railway and other officials as prescribed.
- iii) That immediate measures are taken in time to avoid inconvenience to passengers, including attending their grievances / complaints.
- iv) Dead Stock Book and other registers are maintained appropriately and adequate balance of stock is maintained for smooth functioning of his/her station.
- v) That all staff at his /her station are thoroughly conversant with the working of the station and their signatures are taken in the **Assurance Register**.
- vi) That periodical statement on staff matters etc. to be prepared correctly and submitted in time.
- vii) That cleanliness activities of station premises are regularly carried out and Station cleanliness is maintained at a high level.
- viii) He/she shall supervise the queue of passenger at Booking Counters, especially at peak hours and take necessary steps by opening extra counters, so that passenger should not wait longer than necessary at Booking window.
- ix) He/she shall periodically inspect all the commercial registers and safety registers of the station to see that the same is maintained up-to-date.
- x) He/she shall observe/monitor the queue of passengers near the ticket entry gates, especially during peak hours, so that passenger can move in and out of the ticketed area promptly. In case of failure of gates he/she shall take prompt action to inform the maintenance staff for rectification of the defective gate(s). He/she shall also inform Control at the same time.
- xi) He/she shall supervise the activities of different staff working at station to see that staff are working properly at their place of duty.

- xii) He/she shall ensure that Commercial Porters are on duty at AFC gates.
- xiii) He/she shall make proper deployment chart of duties of all staff to ensure that proper staff are available at all points as per requirement.
- xiv) He/she shall attend VIPs/High official(s) at his/her station as and when required.
- xv) He/she shall carry out any others duties as entrusted by higher officials from time to time.
- xvi) He /she shall make all efforts to detect unauthorized passengers committing and take action as per extant rules.
- xvii) He/She should ensure inspection of his/her station twice in a month (including a night inspection).
- xviii) He/she should ensure timely sparing of staff for Refresher Course and PME.
- xix) He/she should hold Safety meeting at least once in a month.
- xx) He/she should ensure compliance of the inspection notes recorded by officers and supervisors.

2. Shift-in-charge:

- i) He/she shall be the in-charge of the shift and in the absence of SS he/she shall be over all in-charge of the station.
- ii) He/she supervise the working of Booking Counters during his/her duty hours to ensure that no inconvenience is caused to passengers.
- iii) He/she shall discharge his/her duties in accordance with the rules laid down in GR-4.34, 5.01, 5.03, 5.04, 5.05, 5.06, 5.07, 5.08, 5.09,5.10, 5.11, 6.04, 8.09 and SRs thereto.
- iv) He/she shall ensure that Commercial Porters man the AFC gates properly and give information about malfunctioning of gates to maintenance staff promptly.
- v) He/she shall supervise activities of Safaiwalas to ensure proper cleanliness of the station.
- vi) He/she shall supervise the panel operator during his/her duty hours to ensure that the panel Operator /Points man are doing their train passing duties properly.
- vii) In case of any exigency he/she should work as penal operator to ensure uninterrupted train running.
- iii) He/she shall ensure that safety equipments/security gadgets are in working conditions and in case of any defect noticed he/she shall take immediate action so that the same are put right in time.

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- ix) He/she shall ensure that Barrier/Manual gates are properly locked.
- x) He/she shall take action to nab the unauthorized passengers and those committing nuisance, and that cases are dealt with as per the extant rules.
- xi) He/she shall see that no unauthorized posters etc. are pasted in station premises and take immediate action to remove the same.
- xii) He/she shall frequently visit to AFC gates and booking counters to check that every thing is proceeding normally, including functioning of equipment.
- xiii) In case of any suicide case or any abnormality he/she should promptly react as per the guidelines issued from time to time. In case of late running of trains and/or any abnormal situation he/she should ensure that frequent announcements are made through PA system.
- xiv) He/ she shall make entry of AFC&PC failures in the Failure Register specially opened for this purpose. Similarly, time of rectification is also to be recorded in the Register.
- xv) Failures are to be promptly reported to the concerned official including Central Control, Metro Rail Bhawan.
- xvi) He/she shall relay staff position and failure position to Central Control at 20 hrs daily.
- xvii) He/she shall ensure that escalators/lifts at his/her station are functioning properly.
- xviii) He/she is to ensure that escalators/lifts are closed/shut down at the end of commercial hours.
- xix) He/she shall relay earnings and ticket position to Central Control in the morning every day.
- xx) He/she shall ensure that station earnings are correctly remitted to the nominated bank as per the schedules.
- xxi) He/she shall ensure timely opening/closing of shutter gates.
- xxii) He/she shall distributed ticket reels, coins, pre-cut tickets, smart cards, tokens etc. to counters well in time. These are to be collected after closure of counters.
- xxiii) He/she shall ensure that staff deployed at counters have declared and made an entry in register about their personal cash.
- xxiv) He/she shall ensure proper entry/ accountal of cash in the DTCS Book.
- xxv) Morning shift Shift-in-charge will prepare TR & CR Notes for remittance of cash to nominated bank.
- xxvi) He/she arrange for providing refund as per the extant rules.
- xxvii) He/she shall check the numbers of rides/status of multi-rides tickets/cards on demand by passengers.

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- xxviii) He/ she shall be tactful in dealing with passengers' grievance/complaint.
- xxix) He/she shall ensure proper balancing of token at the gates and counters.
- xxx) He/she shall keep watch on working of cameras and CCTVs.
- xxxi) He/she shall ensure that change of mode of AFC gates is as per requirement.
- xxxii) He/she shall ensure opening of extra counter (s) in case of heavy rush.
- xxxiii) He/she will prepare balance sheets, periodical statements and monthly statements as required for Traffic as well as Accounts Departments.
- xxxiv) He/she shall do any other work which may be required for smooth dealing of passengers at the station.

3. Duties of Panel Operator:

- i) He/she should turn up on duty well in time. In case of any difficulty in doing so, intimation must be given well in advance over phone to SS, Shift-in-charge, Sectional TI and/or Central Control so that an alternative arrangement may be made for manning of the panel.
- ii) He/she shall ensure that all the safety equipments are in working order in his duty hours. He/she shall immediately inform his supervisor regarding any deficiency, if noticed.
- iii) He/ she will discharge his/her duties in accordance with GR – 3.26, 3.27, 3.28, 3.29, 3.30, 3.36, 3.37, 3.42, 3.43, 3.45, 4.30, 4.31, 4.32, 8.12, 8.13, 8.14, 8.15 and SRs thereto.
- iv) He/she shall ensure that panel board including Signals, points, telephones, ACs & other equipments/instruments are working properly in his/her duty hours.
- v) Failures of S&T equipments/gears are to be promptly informed to Control as well as the concerned S&T supervisor/maintainer.
- vi) During failure of points & signals trains are to be passed strictly as per the laid down rules of G&SR and SWR.
- vii) In any case no short cut method is to be applied by him/her in train passing duties.
- viii) In case of any failure of S&T gear a failure memo is to be issued in the prescribed form.
- ix) In case of abnormal working, sickness, call of nature etc. he/she should inform Shift-in-charge/SS to man the panel. In any case the panel must not be left unmanned.
- x) He/she should be well acquainted with latest safety circulars, instructions and correction slips of G&SR / SWR.

xi) He/she shall ensure proper maintenance of all train passing registers.

4. Duties of TS/Sr.TA/TA/BC/TC(Booking counters).

- i) He/she shall ensure that TOM is working properly during his/her duty hours. However, if any defect is noticed he/she should immediately inform Shift-in-charge for necessary action.
- ii) He/she should ensure that proper ticket/exchange is delivered to the passengers.
- iii) He/she should ensure that no hitch occurs while issuing tickets.
- iv) He/she should be prompt in issuing tickets and ensure that queue lengths are never inordinately long.
- v) In case queue length becomes long at the counter, he/she should inform Shift-in-charge/SS.
- vi) He/she should operate the TOM/POS as per the extant rules.
- vii) He/she should ensure that proper Display Boards are working at the counter.
- viii) He/she should take every care that appropriate tickets are to be issued to correct destinations with exact fares.
- ix) He/she should obey any other instructions given by Shift-in-charge/SS.

5. TS/Sr. TA/TA/BC/TC (GATES)

- i) He/she shall ensure that barrier/manual gates are under lock and key.
- ii) He/she should ensure that no AFC gate is made free without any specific reason and without getting permission from Shift-in-charge/ Central Control.
- iii) He/she should ensure that all AFC/Smart gates are in working order. In case of failure, such failure must be promptly reported to enable quick rectification.
- iv) He/she assists passengers in smooth entry/exit at the gates.
- v) He/she should ensure that passengers found traveling without ticket or with improper/invalid tickets are charged as per extant rules.
- vi) He/she should be polite and should work as the passengers' guide at the AFC/Smart gates.
- vii) In case of any abnormality or any exigency he/she should obey the instructions of Shift-in-charge.

6. Duties of Points man:

- i) He/she should be careful and vigilant while on duty.
- ii) He/she should not leave his/her place of duty without proper permission of his/her supervisor.

- iii) He/she should be vigilant in watching safe passage of passenger trains at his/her station. In case of any unusual incident he/she should immediately inform the panel operator.
- iv) In case of failure of points and/or signal(s) before piloting and handing over of written authority he/she must ensure correct setting and securing of the relevant points.
- v) Hand signal lamps, Flags, Clamps and Pad Lock at the station are to be checked. In case of any defect, such defects must be promptly reported to SS/Shift-in-charge.
- vi) He/she shall carry out any other instruction given by his/her superiors.
- vii) He/she should discharge his/her duties in accordance with GR- 3.37, 3.38, 3.39, 3.40, 3.41 and SRs thereto.

7 Duties of Station Porter:

- i) He/she should obey the instruction of SS/Shift-in-charge during the course of work.
- i) He/she should attend AFC/Smart gates as and when required.
- iii) He/she should stand at the platform to guide the passengers. Passengers should be advised not to cross the white line.
- iv) He/she shall carry Railway baggage, store materials etc. as and when required.

8. DUTIES OF COMMERCIAL PORTERS:-

- i) Man the entry and exit gates to ensure the proper functioning trouble shooting in case of any technical problem.
- ii) Prompt reporting the gate failure to the Shift-in-charge for quick rectification.
- iii) Ticket checking at the gates and defaulters be brought to the Shift-in-charge on duty for issue of Excess fare tickets.
- iv) Balancing of Ticket Reels /RFID Tokens at his station and among different stations on Metro Railway.
- v) Guide and help the passengers in all possible manners and be courteous to them.
- vi) Help the passengers queue up in front of Booking window.
- vii) Keep the area in front of the gates and the Booking Window clean by deputing safaiwalas.
- viii) while on duty at the platforms, ensure that the platforms are neat and clean; and depute safaiwalas to get it cleaned from time to time.

- ix) He/she would be the “ Train Marshall”, who would ensure that the passengers entry/exit the train properly in orderly manner and the doors of the coaches are closed well in time so that the train does not suffer detention.
- x) In case of any Alarm chain Pulling (ACP) from any of the coaches, he/she would attend the coach, ascertain the reasons for ACP and assist the Motorman and shift-in-charge in setting it right.
- xi) Assist the Shift-in-charge and the train crew in case there is any problem in the train while on run at his/her station.
- xii) Responsible for apprehending defaulters who are observed creating nuisance at the station, bring the defaulters to the Shift-in charge for booking for creating nuisance.
- xiii) Operate the Escalators/Lifts provided at the station.
- xiv) Help the physically handicapped persons in entraining/detraining.
- xv) Responsible for opening/closing for the Surface Dispersal Gate in the morning and in the evening at the beginning/closing of commercial hours of the station.
- xvi) Bring and distribute the stationery items and cleaning materials from stores for use at the station.
- xvii) Bring and dispatch dak/letters from/to the various offices/stations as instruction of SS/Shift-in-charge.
- xviii) Assist the SS/Shift-in-charge in depositing the cash from the station to the Bank.
- xix) In case of accident/fire/unusual incidents like suicide or passenger falling, sick, he would assist the SS/Shift-in-charge act as per their instructions.
- xx) Any other duty assigned by SS/Shift-in-charge.

8 DUTIES OF SAFAIWALA:-

- i) Cleanliness is the absence of littering of used tickets, wrappers of eatables, cigarette or Bidi butts, or littering of any kind dirt, including dust, stains, bad smells, garbage and removal of cobwebs. Purposes of cleanliness include health, beauty, absence of offensive odor, and to avoid the spreading of dirt and contaminants. In the case of glass objects such as windows or windshields, the purpose can also be transparency.
- ii) Brooming of floors, dusting and wet cleaning/mopping with stick-brush should be used to ensure cleanliness. Washing is another way of achievement cleanliness, usually with water and often some kind of soap or detergent. Use of acids or suitable chemicals can also be used to remove permanent stains on walls/columns/panels/staircase step/floors/roofs/glass panels of fixed structure on the station premises. Mechanized maintenance can also be resorted to ensure cleanliness.

- iii) At all times, ensure cleanliness of:
- Approach to the Station premises from all sides including the administrative area of the Metro Railway, outside the station.
 - All staircases/Escalators/Lifts from the Surface leading to the mezzanine floor including wall panels.
 - Mezzanine floor.
 - Passenger circulating area in front of the booking window and the Entry/Exit Gates within the station premises.
 - Area leading from the Entry/EXIT Gates to the platforms.
 - Platforms, pillars and any fixed structure within the station premises.
 - Hoardings/Advertising Boards/Glow Signs provided at the station premises.
 - Offices of SS, Shift-in-charge, panel Operator, other senior Supervisors, Booking Window, Locker rooms or any other rooms at the station premises.
 - Toilets/Urinals for the station staff.
- iv) In case of mechanized maintenance, Safaiwala shall handle and operate machines/gadgets, Learn how to carry out petty repairs, responsible for upkeep of the equipments, prompt reporting of failures of the equipment to the SS/Shift-in-charge so that it can be repaired promptly.
- v) Safaiwala shall be responsible for continuous and repeated cleaning of the passenger circulating area, platforms, approach to the stations, staircases and removal of unwanted bills/posters from the walls of the station premises free of stains of any kind. Particular attention should be paid to area in the proximity of water coolers provided at the stations, where footprints of the passengers can come up due to wetness of the floors.
- vi) Safaiwala should be responsible for detection of nuisance cases, particularly with regard to willful littering on the part of the passengers on the station premises and bring the defaulters to the notice of SS/Shift-in-charge for penalizing them as per the provisions of the Calcutta Metro Railway (Operating and maintenance) Temporary Provisions Act.1985.
- vii) Safaiwala should keep an eye on the various vendors provided kiosks at the station premises with regard to littering and ensure that they maintain cleanliness standards of the station. Any defaulter should be brought to the notice of SS/Shift-in-charge for penalizing them as per the provisions of the contract agreement with the Metro Railway.
- viii) Bring and distribute the stationery items and cleaning materials from stores for use at the station.
- ix) Bring and despatch dak/letters from/to the various offices/stations as per the instruction of SS/Shift-in-charge.
- x) In case of any suicide attempted at the station, he shall remove the dead body/parts of the dead body or that of any carcass of any kind from the track immediately to ensure quick restoration of train services. In cases the attempted suicide is not successful; he shall assist the SS/Shift-in-charge in providing timely assistance to save a life.
- xii) In case of accident/fire/unusual incidents like suicide or passenger falling sick, he would assist the SS/Shift-in-charge and act as per their instructions.
- xiii) Any other duty assigned by SS/Shift-in-charge.

APPENDIX-“E”**LIST OF ESSENTIAL EQUIPMENTS PROVIDED AT THE STATION**

The following essential equipments are provided at the station which shall be maintained in good working order :

<u>SL.NO.</u>	<u>DESCRIPTION</u>	<u>NUMBER</u>
1.	Multi Colour Torch	2
2.	First Aid Box	1
3.	Fire Extinguisher	16
4.	Stretcher	2
5.	Fire Buckets on stand	16
6.	Oxygen Cylinder	1
7.	Gas Mask	1
8.	Hand Held Search Light	1

APPENDIX-“F”

**RULES FOR WORKING OF DK STATIONS, HALTS, IBH , IBS AND OUT LYING
SIDINGS**

There is no DK station, Halts, IBH, IBS and Outlying siding at this station.

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APPENDIX-“G”**RULES FOR WORKING OF TRAINS IN ELECTRIFIED SECTIONS**

(To be jointly signed by Dy Chief Operations Manager and Dy Ch. Electrical Engineer/ M.)

750V DC TRACTION STATION WORKING RULES
FOR GITANJALI STATION.

1.0 The general principles governing operation and maintenance of traction equipments operated on 750V DC will be guided by these rules. This Rules Book shall be kept in each station and all the staff dealing with safe working shall make themselves thoroughly familiar with the GR 10.01 to 10.08 and SR 10.01, 10.02(2) and 10.5(5) and concern clauses of PDSR for Metro Railway issued by Chief Electrical Engineer dt.30.09.90. Brief reference to important rules required to be followed by station staff in their day to day work has been given in this appendix. These are, however, illustrative and not exhaustive.

2.0 General Safety Precaution:

- 2.1. All cables, conductor Rail and electrical equipments shall be regarded as being alive all time and consequently dangerous for human life, save and except in cases where the Conductor Rail and electrical equipment has been specially made dead in accordance with the provisions of these Rules.
- 2.2. All staff is warned usual direct or indirect contact with live portion of 750V Conductor Rail with any conducting materials as it is dangerous and impairs safety.
- 2.3. No work on 750V DC line (Conductor Rail) or its immediate vicinity of any live equipment shall be carried out unless a regular Permit to work (PTW) is obtained from the authorized traction staff and line is made dead and earthed as per rule.
- 2.4. No work shall be undertaken on Conductor Rail or its associated equipment or in Zone within 1(one) meter from conductor rail. The work should be carried out in accordance with instructions issued in this regard by Chief Electrical Engineer.
- 2.5. The track bed in any of the alignments as third rail is always alive/ charged.

3.0 Section Diagram :

- 3.1. No. ELECT/PSI/SLD/NOA – NG/R3, SH – 27/PN/BR/TSS (Station Code 30) Feeding Arrangement indicating the sectioning diagrams which have been dedicated to carry 750V DC for electric traction purposes is enclosed. The diagram indicates the position of controlling circuit breakers, isolators and substations. The limit of an electrical section is indicated by arrow mark with Map. The arrow mark at the end of each electric section indicates the position of the slope rails.
- 3.2. For all purposes connected with train movement and power block, this diagram is the only authorized document to be referred to.

4.0 Operation of Switches :

- 4.1 All switching operations shall be carried out in accordance with the instruction of the Traction Power Controller.

5.0 Procedure for Power Block Working :
Power Block are of three different types :

- a) Pre-arranged / normal power block;
- b) Emergency power block;
- c) Local power block.

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5.1 Such power block is granted for the purpose of carrying out scheduled maintenance by various departments on planned basis. Each Department is expected to send their requirement of weekly power block Programme to TPC as per instruction in force.

5.2 **Granting of Normal Power Block :**

5.2.1 One Supervisor from branch, not below the rank of JE, is to be nominated to collect all maintenance works scheduled to be carried out from that department for the 10 days period.

5.2.2 The 10 days programme, to be carried out during non-commercial hours, is to be submitted to a nominated supervisor of Electrical branch on every 1st, 11th, 21st of each month for execution of works on 11th, 21st, and 01st of the next 10 days periods.

5.2.3 After collection of all the programmes from all the departments the nominated supervisor of Electrical Department will submit a consolidated statement of works proposed to Dy.COM-II for his perusal and approval by 3rd, 13th, and 23rd every month. In absence of Dy.COM-II it is to be put up to STM-I.

5.2.4 The approved programmes are to be circulated to all concerned including Traffic Controller by 5th, 15th, 25th for execution of works from 11th, 21st of the month and 1st of the next month.

5.2.5 As per the above programme Supervisors from Civil, Electrical and S&T departments will make out a message in PTW -1, asking permission – to work from one of the 3rd rail Electrical Supervisors (not below the rank of JE), stationed at Master Da Surya Sen, Jatin Das Park and Shyam Bazar under exchange of private number, with the following details:-

- | | |
|-----------------------|---------------------------------|
| (i) Requisition No. | (ii) Nature of work |
| (iii) Location | (iv) Date/Time (From...to ...) |
| (v) Name of the | (vi) Name of the supervisor |
| (vii) No. of workers. | |

5.2.6 All supervisors entrusted to take PTW and grant PTW must have an authorized Private Number Sheet.

5.2.7 The 3rd rail Electrical Supervisors stationed at Master Da Surya Sen, Jatin Das park and Shyam Bazaar will communicate the requisitions to Traction Power Controller on duty at Central Control, Metro Rail Bhavan under exchange of private numbers.

5.2.8 The Traction Power Controller on duty will keep the Section Controller on duty advised in writing about the requisitions placed by the supervisors.

5.2.9 Then the Traction Power Controller on duty will arrange power block through remote control or in co-ordination with the sub-stations and will communicate the same to the 3rd rail supervisors stationed at the above 3 locations under exchange of private number.

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- 5.2.10 The 3rd rail Supervisors, after getting confirmation of power block will arrange earthing of the 3rd rail on either end before issue of Permission– to– work in PTW-2.
- 5.2.11 The 3rd rail Supervisors will issue PTW-2 under exchange of private numbers with the concerned supervisors indicating date and time from which PTW has been issued and date & time PTW is to be returned clearly indicating that PTW is to be returned only after removal of men and materials from the site of works and track is free from obstruction for safe restoration of train movement.
- 5.2.12 Work at each location is to be supervised by a competent supervisor.
- 5.2.13 After complete of work a cancellation advice is to be issued by the concerned supervisor in the prescribed form PTW-3, under exchange of private number with the concerned 3rd rail Electrical Supervisor with date and time.
- 5.2.14 The concerned supervisors must confirm that the work has been completed, men and materials have been removed from the site of work and the track is free from obstruction for restoration of train movement.
- 5.2.15 After complete cancellation of permission – to – work and ensuring removal of men and materials from the site of works and confirming track free from obstruction the concerned 3rd rail supervisors will pass on a power block cancellation message to Traction Power Controller in a prescribed format PTW-7, under exchange of private number. In the message they should confirm that men and materials under their charge have been removed from the site of work and earths have been removed. Power in the sections may be charged.
- 5.2.16 On receipt of the power block cancellation message from the 3rd rail Supervisors Traction Power Controller on duty will arrange to switch on the feeders.
- 5.2.17 After charging of the 3rd rail in the sections Traction Power Controller will issue a **“Line safe certificate”** to Section controller on duty.
- 5.2.18 After receiving the **“Line safe certificate”** from Traction Power Controller the Section Controller on duty will plan to run Up and Down Pilot Trains.
- 5.2.19 For maintenance works at Noapara and Mahanayak Uttam Kumar Yards/Car sheds requisition for PTW may be addressed to Car Shed Supervisors not below the rank of ELC “B”.
- 5.2.20 All concerned (Supervisors asking PTW, 3rd rail Supervisors granting PTW, TPC and SCNL) are to maintain Registers to record the above activities during the power block. Format of the Registers of the Supervisors and Central Control is to be designed to record all above activities in clear and convincing manner right from asking PTW to restoration of normal train running.

5.3. **Emergency Power Block:**

- 5.3.1 Emergency power block can be imposed during any time by the supervisors of Civil, Electrical and S&T in the grade of Rs (5000-8000) (RSRP) and above or Sr.TS / TS or Motorman on telephone and the conductor rail will be switched Off from the substation after getting advice from the TPC. If any emergency power block is required which has not been programmed, the co-coordinating supervisor shall give the particulars in the proforma mentioned under Para 5.2.1 above and avail the permit-to-work by following the procedure mentioned above.
- 5.3.2. In exceptional and rare case and in a grave emergency situation, where emergency power block procedure cannot be duly followed, emergency switching off of power supply the conductor rail may be restored to by the TPC or the substation operator on advice from any Metro Railway supervisory staff including those of the Traffic Department. In such a situation, it is the responsibility of the concerned supervisory staff requisitioning emergency switching off of the power supply to ensure that power supply to the third rail has actually been switched off and the conductor rail is dead before physical contact with the conductor rail to establish by any person or work in the vicinity of the conductor rail is permitted. It is imperative that duration of such interruptions to power supply to be kept to the barest minimum. The above mentioned supervisory staff, after satisfying himself that the grave situation is over limit the conductor rail and the track has been cleared of all infringements, that damages, if any, have been repaired by respective Departmental staff and that the affected site has been cleared of men and materials, will advice the TPC or substation operator to restore the power supply by exchanging private numbers. Application of normal power block procedure will be restored from this stage onwards. In all such cases, a report must be sent to the Chief Electrical Engineer, Metro Railway through proper channel, justifying such a course of action.
- 5.3.3. Power supply by exchanging private numbers. Application of normal power block procedure will be restored from this stage onwards. In all such cases, a report must be sent to the Chief Electrical Engineer, Metro Railway through proper channel, justifying such a course of action.
- 5.3.4. The emergency power block will be endorsed only in case of extreme emergency which may endanger human life, train or any other equipment, property or disruption to traffic.
- 5.3.5. The Motorman of a stranded train in the section shall issue a message to TPC through communication circuit at his disposal for imposition of power block either for attending the defective train or evacuation of the passengers. On getting the power block, the motorman shall earth the rail as per extent procedure. In case the power block has been imposed by any agency other than motorman, the earthing of the line shall be done in consultation with TPC.

6.0 **LOCAL POWER BLOCK**

The power block on the conductor rail of “Secondary Lines” such as sidings, yards, shades etc.

Arranged by Sr.TA/ TS, Yard Master or Shed (SE/SSE) Foreman of concerned locally, come under this category.

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7.0 TRAFFIC BLOCK

However, power block is taken on any section; traffic block shall also be taken simultaneously, i.e. during pendent of power block there should no movement allow in or out of the section, under power block. In special circumstances when movement of self propelled vehicle like Battery locomotive is required, this may be done by piloting or restricted speed.

8.0 PROTECTION AT THE TIME OF POWER BLOCK

8.1 All section over which a power block has been granted shall be protected against entry of Metro Coaches during the period of the block as per annexed sheet no. A.

8.2.1 Before introducing a single line working the Sr.TS/TS/Sr.TA on duty shall ensure from the Traction Power Controller that there is no power block on the route on which single line working is being introduced.

9.0 BREAKDOWN OF ELECTRIC EQUIPMENT

9.1 All breakdown or defects noted or reported on the conductor rail or any other electrical equipment shall immediately be reported to the Traction Power Controller. Temporary caution order should be launched to the motorman on duty led by the Traction Power Controller observing the existing rules regarding issue of caution order.

10.0 FIRE AND ACCIDENT

10.1 Regarding accident and fire on or adjacent to any electrical equipment refer SR 6.12, 6.12(1), 6.12(3) and PDSR (6.1& 5.1- 5.3.1)

11.0 ELECTRIC SHOCK

11.1 Station Master shall exhibit prominently the instructions issued regarding the treatment of a person suffering from electric shock in the station and shall ensure that all class III staff are familiar with these instructions(as per electric shock treatment chart).

12.0 POWER BLOCK AT GITANJALI STATION.

12.1 Normal Maintenance Power Block :

12.1.1 Issue of P.T.W. for normal maintenance is restricted during commercial hours.

12.1.2 The procedure of Normal Power Block is indicated in Para 5.2 and emergency power block as mentioned in Para 5.3 should be followed.

13.0 Procedure for Power Block at A Gitanjali station

- 13.1 Power to conductor rail on DN line between KMSN neutral Section (KDMI end) and KKNZ (KDMI end) is fed from both end by 750 V DC through cables from high speed circuit breaker (HSCB) at KMSN /RSS and KKNZ/TSS. Power to conductor rail on UP line between KKNZ neutral Section (Kavi Subhash end) and KMSN neutral section (Kavi Subhash end) is fed from both end by 750 V DC through cables from high speed circuit breaker (HSCB) at KKNZ /TSS and KMSN /RSS Emergency power supply feed can be extended on DN line by Bridging HSCB 19DB09 from KMSN /RSS and 21DB09 at Kavi Nazurul /TSS and on UP line by 21DB10 from KKNZ /TSS and 19DB10 at KMSN /RSS.
- 13.2 Power to conductor rail for the above section as mentioned in Para 13.1 being the arrangement for (1) normal feeding through HSCB via hand operated isolator (HOI) at KMSN/RSS and Kavi Nazurul/TSS which are normally in close /on position.
- 13.3 The sequence of switching operation/cancellation of power block from the section mentioned in Para 13.1 shall be carried as per Annexed sheet – A.
- 13.4 All the operation and information regarding taking and releasing P.T.W. in the above section should be confirmed by the parties and the Conductor Rail supervisor who will be available at Masterda Surja Sen RSS by exchanging private number as Para 5.2.5.

Annexed sheet – A

GITANJALI ZONE:**WORKING RULE OF ELECTRICAL TRACTION FOR DOWN AND UP LINE.**

Section Blocked	Protection against entry of Metro Coaches.		Switching operation sequences	
	Longitudinal	Transverse	For granting power Block	For cancellation of Power Block
DN line conductor Rail in between neutral section slope rail of KMSN (KDMI end) and KKNZ (KDMI end)	No Train should start from Netaji station towards KMSN on DN line.	No Transverse movement is possible from UP line to DN line at KMSN station and KGTN.	OPEN/OFF i) 19DB03 at KMSN/RSS and 21DB01 at KKNZ/TSS ii) Confirm that 19IH03 at KMSN/RSS and 21IH01at KKNZ/TSS are in open condition iii) Confirm that Bridging HSCB 19DB09 at KMSN/RSS and 21DB09 at KKNZ/TSS are in open condition.	CLOSE/ON i) 19DB03 at KMSN/RSS and 21DB01 at KKNZ/TSS ii) Confirm that 19IH03 at KMSN/RSS and 21IH01at KKNZ/TSS are in close condition iii) Confirm that Bridging HSCB 19DB09 at KMSN/RSS and 21DB09 at KKNZ/TSS are in open condition.
UP line conductor Rail in between Neutral section slope rail of KKNZ (Kavi Subhash end) & KMSN station (Kavi Subhash end)	i)No train should start from Shahid Khudiram station on UP line towards Kavi Nazrul station (inclusive)	No transverse movement is possible from DN line at KKNZ and KMSN.	OPEN/OFF i) 21DB02 at KKNZ/TSS and 19DB04 at KMSN/RSS. ii) confirm that Bridging HSCB 21DB10 at KKNZ/TSS and 19DB10 at KMSN/RSS are in open condition. iii) confirm that 21IH02 at KKNZ /TSS and 19IH04 at KMSN/RSS are in open condition.	CLOSE/ON i) 21DB02 at KKNZ/TSS and 19DB04 at KMSN/RSS. ii) confirm that Bridging HSCB 21DB10 at KKNZ/TSS and 19DB10 at KMSN/RSS are in open condition. iii) confirm that 21IH02 at KKNZ /TSS and 19IH04 at KMSN/RSS are in close condition..



GITANJALI STATION

STATION WORKING RULES

CENTER LINE: K.M.21/039

PREPARED ON 04/01/2011

METRO RAILWAY, KOLKATA

INDEX
GITANJALI STATION

SL.NO	Particulars	Rule No.	Page No.
1	Station Working Rule Diagram	1	1
2	Description of the Station	2	1
3	System and means of Working	3	3
4	System of signaling and Interlocking	4	4
5	Telecommunication	5	5
6	System of train Working	6	5
7	Blocking of line	7	9
8	Shunting	8	9
9	Abnormal condition	9	10
10	Visibility Test Object	10	12
11	Essential Equipment at the Station	11	12
12	Fog Signalman	12	12
13	Certificate	13	112
14	List of Appendices	-----	13
15	Working of level crossing	APPENDIX-A	14
16	Salient features of signaling and interlocking system at Gitanjali station.	APPENDIX-B	15
17	General, Description of Control Panel	1,2	15
18	Signal / Semi Automatic Signal	3	15
19	Function of the buttons/switches	4	16
20	Axle counter	5	17
21	Operation of Multi Section Digital Axle counter reset console.	6	17
22	Working of Semi Automatic Signal	7	21
23	Failure Indication / Signal	8	22
24	Action by TS/ Sr.TA when Semi Automatic Signal is defective	9	23
25	Action by Driving and Conducting Motorman when Automatic Stop Signal passed at “ON”	10	23
26	Activities and attending to signal failure.	11	23
27	Power failure	12	24
28	Anti Collision Divice (Raksha Kavach)	APPENDIX-C	25
29	Duties of trains passing staff in each shift	APPENDIX-D	26
30	List of Essential equipments	APPENDIX-E	34

31	Rules for working of DK Stations, Halts, IBH, IBS, and Outlying Sidings	APPENDIX-F	35
32	Rules for Workings of trains in electrified sections	APPENDIX-G	36
33	Working Rules of Electrical Traction for UP, DN & Yard lines at NOA Carshed	-----	42
34	Electrical Drawings		
35	Station Working Rules Drawings		

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