QUALITY POWER GRID COMPANY OF BANGLADESH LTD.								QUALITY			
MANAGEMENT SYSTEM	TITLE: PROCEDURE FOR SUB-STATION OPERATION						PROCEDURES				
Document No:	QP-SSO-01	Revision No.:	01	Effective Date:	11/11/12	Page:	1	of	4		

2. Pi	 Applies to the whole of POWER GRID COMPAN' urpose: To Standardize the operation of Grid Sub-Station affecting quality, stability and reliability of powers 	which stand	out as an indispe	nsable compo	nent
SL. No.	Activity (including check points)	Ref. Doc.	Responsibility	Freq. /Time	Output
1.0	Transmission of Power			7741110	
1.1	In power stations, the output power of the generating units is stepped up to 230kV or 132kV voltage by unit transformer.		MGMD	Continuous	Power is wheeled from power
1.2	The power is then transmitted to the grid sub-stations through 230 kV & 132 kV transmission lines.				stations to different
1.3	At grid sub-stations the high voltage is stepped down to 132 kV and/or 33 kV voltage level.				distribution entities
1.4	From the 132 kV and/or 33kV bus of grid sub-stations the power is then supplied to 132 kV and 33 kV consumers, i.e. to various distribution entities.				
2.0	Reference documents/information				
2.1	A master list of Sub-station equipment is maintained. Safety Manual QD-TSS-01is maintained		MGMD	Once	QF-GMD-40
2.3	Operation Instruction for the following 230/132 kV and 132/33 kV equipment are maintained (As necessary and applicable). • Power Transformer • Circuit Breakers • Protective & Metering Instruments • AC/DC Power Supply Panel • Battery Charger • Battery etc.	O&M manuals of respective equipment.	MGMD	Once	
3.0	Planning of Operation				
3.1	In the planning of grid sub-station operation, the main considerations should be the Manpower available for operation Competency of available manpower Effective coordination of manpower.		MGMD DM/AM GMD	As required	
3.2	The operation plan should be in such a way that the operation of all equipment can be carried out efficiently and effectively. To implement it, • All personnel should be trained as far as possible		-do-	-do-	
3.3	Each sub-station of grid Maintenance Division makes a detailed planning for operation Program for the succeeding month. (The monthly operation schedule shows the day & shift wise distribution of duties in a particular month)		-do-	Once in a month	Draft pan is prepared
3.4	Monthly operation schedule for the succeeding month should be developed within the last week of running month.		DM/AM GMD	-do-	
3.5	The prepared monthly operation schedule should be checked for error (if any) properly and will be signed by the concerned sub-station in Charge.		-do-	As required	QF-GMD-14
3.6	The schedule is then approved by the Manager of concerned GMD.		MGMD	-do-	Plan is approved
3.7	After getting the required approval the plan becomes ready for implementation.		DM/AM GMD	-do-	QF-GMD-14
3.8	If change in operation schedule is needed, revised schedule must be approved by the competent authority before enforcing it in action	QF-GMD-14	-do-		QF-GMD-14

Approved by (DO&M):

QUALITY	POWER 0	QUALITY								
MANAGEMENT SYSTEM	TITLE: PROCEDURE FOR SUB-STATION OPERATION						PROCEDURES			
Document No:	QP-SSO-01	Revision No.:	01	Effective Date:	11/11/12	Page:	2	of	4	

4.1 Scheduled Operation: * Keeping operational records * Monitoring the loading of equipment (Lines/Transformers) * Monitoring the Sourity of the sub-station * Monitoring the loading of equipment. Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. * Monitoring line & bus voltage: Hourly reading (WV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. * Monitoring line & bus voltage: Hourly reading (WV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. * Implementation of load shedding operation in cooperation with LDC: Switching operation in the switchyard, operation people will dentify the following switching operate the fire extinguishers & instantly call the nearest fire bridged office. * The event will be recorded in shift diary. * Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. * The event will be recorded in shift diary. * Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. * The event will be recorded in shift diary. * Operation people will be people will identify the following switch and the sub-station in charge and will record it in the shift register.	SL. No.	Activity (including check points)	Ref. Doc.	Responsibility	Freq. /Time	Output
* Keeping operational records * Monitoring the loading of equipment (Lines/Transformers) * Monitoring line & bus voltage * Switching operation in cooperation with LDC * Operating fire fighting equipment * Monitoring the security of the sub-station * Monitoring the security of the sub-station * A checklist is followed to carry out normal operation steps. 4.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps. 4.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of GRID CODE in a doubt in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation in cooperation from tripping/grid failure. 4.1.6 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, **Operating fire fighting equipment if by any means fire breaks out in the control room or in the switchyard, **Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. **The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of	4.0	Implementation				
Monitoring the loading of equipment (Lines/Transformers) Monitoring line & bus voltage Switching operation in cooperation with LDC Operating fire flighting equipment Monitoring the security of the sub-station 4.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps. 4.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (KV) of line & bus (as applicable) are recorded in the log sheet and monitored for loading of lines and/or compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of Wi-PSO-01 operation is performed in association and/or direction of Wi-PSO-03 Implementation of load shedding Wi-PSO-05 Uutage management System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. 1 If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2.1 Outage Management 4.2.2 Uvten shutdown of the lines / equipment is required for maintenance - Emergency maintenance Emergency maintenance Emergency maintenance Emergency maintenance Emergency maintenance Emergency maintenance Emergency	4.1			DM/AM GMD	As	
(Lines/Transformers) • Monitoring line & bus voltage • Switching operation in cooperation with LDC • Operating fire fighting equipment • Monitoring the security of the sub-station 4.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps. 4.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: WI-PSO-01 LDC to facilitate the following tasks • Implementation of load shedding • Outage management • System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. • The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following • Lighting, in & around the switchyard, boundary wall & control room is adequate. • Security guards/Ansars are in duty in proper positions. • Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form d		 Keeping operational records 			required	
Switching operation in cooperation with LDC Operating fire fighting equipment Monitoring the security of the sub-station A.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps. A.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. A.1.3 Monitoring tine loading of equipment: Hourly reading (MW, MVAR, A) of line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. A.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks Implementation of load shedding Outage management UN-PSO-05 UN-PSO-05 Undage management UN-PSO-06 A.1.5 Operating fire fighting equipment: if by any means fire breaks out in the control room or in the switchyard, Operating fire fighting gequipment: if by any means fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security quards/Ansars are in duty in proper positions. Main entrance to the sub-station in charge and will record it in the shift register. 2. Dutage Management 4.2.1 Outage Management 4.2.2 Utdage dines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance to the team WI-PSO-03 JAM GMD As required		 Monitoring the loading of equipment 	02, 03,05,06			
Switching operation in cooperation with LDC Operating fire fighting equipment Monitoring the security of the sub-station 4.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps. 4.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of carry out ransformers. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks Implementation of load shedding Outage management System restoration from tripping/grid failure. 4.1.5 Operating peripe will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will immediately inform the sub-station in charge and will record it in the shift register. 4.1.5 Characteristics of the sub-station in charge and will record it in the shift register. 4.1.6 Monitoring the security of sub-station in charge and will record it in the shift register. 4.1.6 Monitoring the security of sub-station in charge and will record it in the shift register. 4.1.6 Monitoring the security of sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for maintenance / development work, team leader of the working party will sub-mit the work permit form duly filled-up and signed in the the AM on duty in grid sub-station control room requesting clearance to the team 4.2.2 When shutdown of the lines / equipment is required for the working party will sub-mit the work permit form duly filled-up and signed in the the AM on duty in grid sub-station control room requesting clearance to the team 4.2.3 The JAM on duty will issue clearance to the team		(Lines/Transformers)				
Switching operation in cooperation with LDC Operating fire fighting equipment Monitoring the security of the sub-station A.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps. A.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. A.1.3 Monitoring line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of UN-PSO-03 Implementation of load shedding WI-PSO-03 Implementation of load shedding WI-PSO-05 Utage management System restoration from tripping/grid failure. 4.1.5 Operating perip will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will intentify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: Cutage Management: Dutage Management Cutage Management Cuta		Monitoring line & bus voltage	QD-TSS-01			
Operating fire fighting equipment Monitoring the security of the sub-station 4.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps. 4.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks 4.1.5 Implementation of load shedding • Implementation of load shedding • Usage management • System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. • The event will be recorded in shift diary. 4.1.6 Monitoring the security, operation people will identify the following the security of sub-station: In course of monitoring the security of sub-station: In course of monitoring the security of sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the soft by will sub-station work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid sub-station control room requesting clearance to the team 4.2.2 When shutdown of the lines / equipment is required for work. 4.2.3 The JAM on duty will issue clearance to the team						
Monitoring the security of the sub-station A.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps.						
4.1.1 Keeping operational records: A checklist is followed to carry out normal operation steps. 4.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks • Implementation of load shedding • Outage management • System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. • The event will be recorded in shift diary. 4.1.6 Monitoring the security, operation people will identify the following • Lighting, in & around the switchyard, boundary wall & control room is adequate. • Security guards/Ansars are in duty in proper positions. • Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage of lines/equipment is required for the implementation of the exception of the lines / equipment is required for maintenance of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.2 When shutdown of the lines / equipment is required for working party will submit the work permit form duly filled-up and signed in to the JAM on duty to the team of the lines / AM on duty will issue clearance to the team.						
carry out normal operation steps. 4.1.2 Monitoring the loading of equipment: Hourly reading (MW, MWAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation in cooperation with LDC: Switching operation in cooperation with LDC: Switching operation for load shedding WI-PSO-03 WI-PSO-05 • Implementation of load shedding WI-PSO-05 • Outage management • System restoration from tripping/grid failure. Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. • The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In oourse of monitoring the security of sub-station: In oourse of monitoring the security of sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2.1 Outage of lines/equipment is required for the implementation of the experiment work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for twork. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As	411			IAM GMD	do	QF-GMD-19
4.1.2 Monitoring the loading of equipment: Hourly reading (MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voitage: Hourly reading (kV) of sheet and monitored for loading of lines and/or transformers. 4.1.4 Monitoring line & bus voitage: Hourly reading (kV) of sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks Implementation of load shedding Outage management • System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. • The event will be recorded in shift diary. 4.1.6 Monitoring the security, operation people will identify the following • Lighting, in & around the switchyard, boundary wall & control room is adequate. • Security guards/Ansars are in duty in proper positions. • Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2.1 Outage of lines/equipment is required for the implementation of the ines of the ines of equipment is required for maintenance / development work. 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work keam leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team.	7.1.1			JAIN OND	-40-	QI -GIVID-19
(MW, MVAR, A) of line & transformers are recorded in the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks Implementation of load shedding Outage management System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance of the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance to the team. WI-PSO-03 JAM GMD As Co	112			do	do	OF CMD 04
the log sheet and monitored for loading of lines and/or transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of operation is performed in association and/or direction of LDC to facilitate the following tasks • Implementation of load shedding • Outage management • System restoration from tripping/grid failure. • System restoration from tripping/grid failure. • System restoration from tripping/grid failure. • Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. • The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following • Lighting, in & around the switchyard, boundary wall & control room is adequate. • Security guards/Ansars are in duty in proper positions. • Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage Management: 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid sub-station control room requesting clearance for twork. 4.2.2 When shutdown of the lines / equipment is required for the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid sub-station control room requesting clearance for twork.	4.1.2			-00-	-00-	QF-GMD-01
transformers. 4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks • Implementation of load shedding • Outage management • System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operating he security of sub-station: In course of monitoring the security of sub-station is well protected, as specified. 4.1.6 Monitoring the security of sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2 Outage of lines/equipment is required for the implementation of the work permit form duly filled-up and signed in to the JAM on duty in grid sub-station control room requesting clearance for work. 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid sub-station control room requesting clearance to the team will represent the proper will submit the work permit form duly filled-up and signed in to the JAM on duty in grid sub-station control room requesting clearance to the team will represent the form of the work permit form duly filled-up and signed in the proper part of the work permit form						
4.1.3 Monitoring line & bus voltage: Hourly reading (kV) of Iline & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks Implementation of load shedding Outage management System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security of sub-station: In course of monitoring the security of sub-station: In course of monitoring the security of sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management. 4.2.1 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD						
line & bus (as applicable) are recorded in the log sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks • Implementation of load shedding • Outage management • System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, • Operating office. • The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following • Lighting, in & around the switchyard, boundary wall & control room is adequate. • Security guards/Ansars are in duty in proper positions. • Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage Management: 4.2.2 Outage Management: 4.3.1 Outage of lines/equipment is required for maintenance / development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As	4 4 2		ODID CODE			05 0145 04
sheet and monitored for over and/or under voltage for compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of WI-PSO-02 LDC to facilitate the following tasks Implementation of load shedding WI-PSO-05 WI-PSO-05 WI-PSO-05 WI-PSO-06 System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2.1 Outage Management: 4.2.2 Outage Management: 4.2.3 Outage of lines/equipment is required for the implementation of the Schedule maintenance Development work When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD	4.1.3		GRID CODE	-00-	-ao-	QF-GMD-01
compliance with the grid code. 4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of LDC to facilitate the following tasks Implementation of load shedding						and
4.1.4 Switching operation in cooperation with LDC: Switching operation is performed in association and/or direction of operation is performed in association and/or direction of WI-PSO-02 LDC to facilitate the following tasks Implementation of load shedding Outage management System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2.1 Outage Management: 4.2.2 Outage Management: Emergency maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As of the process of the team will-PSO-03 JAM GMD As of the process of the team will-PSO-03 JAM GMD As of the process of the team will-PSO-03 JAM GMD As of the process of the team will-PSO-03 JAM GMD						QF-CNP-01
operation is performed in association and/or direction of LDC to facilitate the following tasks Implementation of load shedding Outage management System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2.1 Outage Management: - Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As Control of the control room requesting clearance to the team WI-PSO-03 JAM GMD As Control of the control room requesting clearance to the team WI-PSO-03 JAM GMD	4 4 4		1MI DOO 04			0= 0115 (-
LDC to facilitate the following tasks Implementation of load shedding Outage management System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As Course Management and signed in to the JAM on duty in grid substation control room requesting clearance for work.	4.1.4			-do-	-do-	QF-GMD-15
Implementation of load shedding Outage management System restoration from tripping/grid failure. 4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage Management: 4.2.2 When shutdown of the lines / equipment is required for maintenance - Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As Country will sissue clearance to the team WI-PSO-03 JAM GMD						and
Outage management System restoration from tripping/grid failure. Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Example Security of sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2.1 Outage Management: 4.2.2 Outage Management: 4.2.3 The JAM on duty will issue clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As Control room requesting clearance to the team WI-PSO-03 JAM GMD As Control room requesting clearance to the team WI-PSO-03 JAM GMD As Control room requesting clearance to the team WI-PSO-03 JAM GMD As Control room requesting clearance to the team WI-PSO-03 JAM GMD As Control room requesting clearance to the team WI-PSO-03 JAM GMD As Control room requesting clearance to the team WI-PSO-03 JAM GMD As Control room requesting clearance to the team						QF-GMD-18
System restoration from tripping/grid failure. Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		•				
4.1.5 Operating fire fighting equipment: If by any means fire breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2.1 Outage Management: A.2.2 Outage Management: Schedule maintenance Emergency maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		•	WI-PSO-06			
breaks out in the control room or in the switchyard, Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 1.2 Outage Management: 2.2 Outage Management: Schedule maintenance Emergency maintenance Emergency maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team Devalopment work will submit the work between the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will part will be a possible to the team will be a possible to the team will part will be a possible to the part will be a possible to the team will be a possible to the team will be a possible to the team will be a possible to the part will be a possible to the part will be a possible to the part wil		 System restoration from tripping/grid failure. 				
Operation people will operate the fire extinguishers & instantly call the nearest fire bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As	4.1.5		QD-TSS-01	-do-	-do-	QF-GMD-15
extinguishers & instantly call the nearest fire bridged office. • The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following • Lighting, in & around the switchyard, boundary wall & control room is adequate. • Security guards/Ansars are in duty in proper positions. • Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the • Schedule maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As Company of the lines / equipment work.		breaks out in the control room or in the switchyard,				
bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		Operation people will operate the fire				
bridged office. The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		extinguishers & instantly call the nearest fire				
The event will be recorded in shift diary. 4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
4.1.6 Monitoring the security of sub-station: In course of monitoring the security, operation people will identify the following • Lighting, in & around the switchyard, boundary wall & control room is adequate. • Security guards/Ansars are in duty in proper positions. • Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance to the team WI-PSO-03 JAM GMD As		-				
monitoring the security, operation people will identify the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. Qutage Management: 4.2.1 Outage Management: Schedule maintenance Emergency maintenance Emergency maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As	4.1.6			-do-	-do-	QF-GMD-19
the following Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. Qutage Management: Qutage Management: JAM GMD As required Emergency maintenance Emergency maintenance Development work L2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. L2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As Office of the switchyard proper in the swit						and
Lighting, in & around the switchyard, boundary wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						QF-GMD-15
wall & control room is adequate. Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		•				
Security guards/Ansars are in duty in proper positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
positions. Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
Main entrance to the sub-station is well protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
protected, as specified. If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		,				
If any deficiency is observed JAM on shift will immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
immediately inform the sub-station in charge and will record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
record it in the shift register. 4.2 Outage Management: 4.2.1 Outage of lines/equipment is required for the implementation of the • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
4.2.1 Outage of lines/equipment is required for the implementation of the • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
4.2.1 Outage of lines/equipment is required for the implementation of the • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
implementation of the • Schedule maintenance • Emergency maintenance • Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As	4.2	Outage Management:		IAM CMD	۸۰	
Schedule maintenance Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As	4.2.1			JAW GIVID		
Emergency maintenance Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As					required	
Development work 4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
4.2.2 When shutdown of the lines / equipment is required for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As						
for maintenance / development work, team leader of the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As	4.2.2	When shutdown of the lines / equipment is required	WI-PSO-03	-do-	-do-	QF-GMD-39
the working party will submit the work permit form duly filled-up and signed in to the JAM on duty in grid substation control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		for maintenance / development work, team leader of				
filled-up and signed in to the JAM on duty in grid sub- station control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		the working party will submit the work permit form duly				
station control room requesting clearance for work. 4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As		filled-up and signed in to the JAM on duty in grid sub-				
4.2.3 The JAM on duty will issue clearance to the team WI-PSO-03 JAM GMD As C		station control room requesting clearance for work.		-		
leader of the working party following WI-PSO-03.	123	The JAM on duty will issue clearance to the team	WI-PSO-03	JAM GMD	As	QF-GMD-18
loader of the frenching party renorming this =='	2.0	leader of the working party following WI-PSO-03.				QF-GMD-39
		reads. of the training party feature.				

Approved by (DO&M)

QUALITY	POWER (QUALITY							
MANAGEMENT System	TITLE: P	1		URE	3				
Document No:	QP-SSO-01	Revision No.:	01	Effective Date:	11/11/12	Page:	3	of	4

SL. No.	Activity (including check points)	Ref. Doc.	Responsibility	Freq. /Time	Output	
4.2.4	After obtaining clearance from the team leader of the working party, the JAM on duty will take necessary actions in association with LDC to resume the service of the equipment under shutdown.	WI-PSO-03	JAM GMD	As required	QF-GMD-39 QF-GMD-18	
4.2.5	After energizing the equipment to resume its service, a record will be maintained by the JAM on duty in grid sub-station control room in the shift operation register including 1. Nature of Work (Scheduled/ Unscheduled maintenance and/or Development work) 2. Cause of break down (If applicable) 3. Time required for maintenance / work 4. Power interruption in (MW), its time duration and the amount of un-served energy in MkWh. (if any) 5. Load shed in MW (if any) and its duration.		-do-	-do-	QF-GMD-15	
4.3	Tripping Management:					
4.3.1	Tripping may occur in transmission line & sub-station equipment due to Internal and/or external fault (Over current, earth fault, under frequency etc.) Natural calamities (Wind, thunder storm etc.)					
4.3.2	In each and every case of tripping, LDC control room must be informed immediately.					
4.3.3	WI-PSO-05 will be followed for tripping management.					
4.3.4	In case of Partial Grid Fail or Full Grid Fail, which results from cascading tripping of numerous generators, transformers and transmission lines, WI-PSO-06 will be followed to restore the system from grid failure. Preparation of Wheeling Bill:					
4.4.1	The main operating function of PGCB is wheeling of energy from BPDB power stations and Generation Companies to Distribution entities utilizing transmission network. In this process PGCB will Receive the energy from power stations Wheel the energy through its network Supply the wheeled energy to distribution entities. PGCB gets its energy wheeling charge from distribution entities		DM/AM GMD	Monthly		
	It is the responsibility of the in charge of the Grid substations to facilitate the process of billing of energy wheeled through the sub-station. To accomplish it Energy Meter readings for different feeders are taken at a predefined time in each month Feeder wise energy wheeled by the concerned Grid sub-station is calculated A report is prepared showing feeder wise energy wheeled and total energy wheeled by the concerned grid sub-station for that month.	WI-SSO-01 QF-GMD-09	-do-	-do-	QF-GMD-11	
4.5	SAFETY PROCEDURES TO FOLLOW					
4.5.1	NO MATTER HOW IMPORTANT THE WORK IS, SAFETY OF THE PERSONNEL MUST BE THE PRIME CONCERN.					
4.5.2	Safety of both man (maintenance gang) and equipment must be considered.	QD-TSS-01	DM/AM GMD JAMGMD	Continuous		
4.5.3	It must be ensured that, the equipment is de-energized, isolated from the system, properly grounded (by both Earth Switch & locally) and & safe for working.					

Approved by (DO&M):

QUALITY	POWER C	QUALITY PROCEDURES					
MANAGEMENT SYSTEM	TITLE: P						
Document No:	QP-SSO-01	Revision No.:	01	Effective Date: 11/11/12	Page:	4 of 4	+

SL.	Activity (including shock points)	D-4 D			
No.		Ref. Doc.	Responsibility	Freq. /Time	Output
4.5.4	made the maintenance zone marked in association with the team leader of the working party & will give permission for work.		-do-	As required	
4.5.5	irrespective of designation, would be allowed to enter, without wearing appropriate protective gears like		-do-	-do-	
	1. Helmet 2. Safety Belt 3. Gloves 4. Protective Shoe 5. Eye protecting Glasses etc. As necessary in cases.				
4.5.6	of equipment under maintenance and/or out of operation.		DM/AM GMD JAMGMD	As required	Safety is ensured
4.5.7	All the personnel working in the control room must have proper knowledge of operating Fire Extinguishers kept both in the control room & in switchyard.	-do-	MGMD DM/AM GMD	-do-	
5.0	Monitoring				
5.01	Operational Records & Monthly Reports are maintained for monitoring & future reference.		DM/AM GMD	Continuous	As required
5.1.1	Recording: A checklist is followed to carry out normal operation		IAMOND	Dell	05 0145 40
	steps.		JAMGMD	Daily	QF-GMD-19
5.1.2	The JAM on duty in grid sub-station control room will record the operational data in the log sheet		-do-	-do-	QF-GMD-01
5.1.3	In case of tripping of the line/equipment, the JAM on duty in grid sub-station control room will record all the information regarding tripping of line/equipment with detailed cause, time of tripping, duration of outage, un-served energy, relay status/flags and will inform the Engineer in Charge immediately.		-do-	As required	QF-GMD-15
5.1.4			-do-	-do-	QF-GMD-15
5.1.5	record the switching operations data in a register.		-do-	-do-	QF-GMD-18
5.2	Monthly Reporting:				
5.2.1	Outage Statement Of Sub-Station Equipment & Transmission Lines due to tripping / emergency maintenance/ schedule maintenance/ project work		MGMD DM/AM GMD (as applied)	Monthly	QF-GMD-02 QF-GMD-03 QF-GMD-04 QF-GMD-05
5.2.2	Consolidated Statement Of Sub-Station & Transmission Line Performance	2/	-do-	-do-	QF-GMD-06 QF-GMD-07
5.2.3	Under Frequency Relay Tripping Report		-do-	-do-	QF-GMD-08
5.2.4	Joint Energy Meter Reading		-do-	-do-	QF-GMD-09
5.2.5	Energy Balance Of Sub-Station		-do-	-do-	QF-GMD-10
5.2.6	Billing Statement Of Sub-Station		-do-	-do-	QF-GMD-11
6.0	Action for improvement				
6.1	The reports are compiled in the office of DGM Grid circle and monitored for sustainability of performance. Whenever deficiency is identified, concerned MGMD is advised accordingly to overcome the problem.	QF-GMD-03 QF-GMD-05 QF-GMD-07 QF-GMD-08 QF-GMD-17	DGMGMD	As required	Analysis for performance deficiency
7.0	The effectiveness of the procedure of operation regarding the operation of grid sub-stations followed in PGCB will be evaluated by the management.		MR, MD, Management review Committee	During Internal Quality Audit	Review of the system
8.0	Actions will be taken on the basis of evaluation by the Management.		MR, MD	When required	mprovement

Approved by (DO&M):