
	Torrent Power Ltd. – Distribution Franchise	Doc. No: TPDF02-DIS01-OCP-015
	OCP- ROUTINE SCADA MAINTENANCE	Rev. No. / Dt: 00 / 01.12.2021

DOCUMENT CONTROL


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Title of Document	ROUTINE SCADA MAINTENANCE ACTIVITIES	
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Amendment Details:

Sr.	Issue No.	Rev. No.	Date	Amendment Details	Reviewed by	Approved by
1	1	0	01.12.2021	First Issue	Shilajit Ray Satish Shah	Snehal Shah Abdulrashid Shaikh
2	1	0	01.12.2022	First Review Done (No changes)	Shilajit Ray Satish Shah	Ankit Saha Abdulrashid Shaikh

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1. PURPOSE

- 1.1. Routine maintenance related activities.

2. SCOPE OF DOCUMENT

- 2.1. The scope of this document is to define a procedure for Automation routine maintenance related activities.
- 2.2. The process document aims to define the guidelines to ensure the process efficiency and effectiveness as required by the Integrated Management System.

3. FIELD OF APPLICATION

- 3.1. This procedure is used for Communication testing & troubleshooting in TPL-D's Franchisee areas of Bhiwandi & SMK.

4. FREQUENCY

- 4.1. As and when required

5. AUTHORITIES AND RESPONSIBILITY


- 5.1. The Head of Department is responsible for implementation of this procedure for effectiveness
- 5.2. The Head of Section at respective location is responsible for execution of this procedure
- 5.3. The authorized person of HV Cell is responsible for execution of the work in accordance with this procedure

6. REFERENCES

- 6.1. Device Manual

7. SPECIFIC COMPETANCY REQUIREMENTS

- 7.1. Technician/GET/Jr. Exe/Exe/AM/M should have Knowledge of
 - (1) Type of equipment and its handling aspects
 - (2) Use of PPEs
- 7.2. Technician/GET/Jr. Exe/Exe/AM/M shall have authority for electrical isolation and issue of LCP/PTW.

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8. INTERFACE WITH OTHER DEPARTMENTS/SECTIONS, IF ANY

- 8.1. HV Control Room
- 8.2. EHS Department
- 8.3. Safety Department
- 8.4. Store Department
- 8.5. HR and Security Department


9. TOOLS AND TACKLES

- 9.1. Equipments
 - (1) Laptop with all required accessories and software
- 9.2. The team shall carry following tools & tackles.
 - (1) Tool kit
 - (2) Extension Board with ELCB
 - (3) Crimpers & connectors
 - (4) Multi Meter
 - (5) Drill Machine
 - (6) Vacuum cleaner / Blower
- 9.3. Stationery and Documents
 - (1) All forms enlisted as attachments

10. PERSONAL PROTECTIVE EQUIPMENTS / SAFETY TOOLS

Following PPEs shall be used to carry out work at site.

- 10.1. Safety shoes
- 10.2. Safety helmet
- 10.3. Cotton Gloves
- 10.4. Insulating Gloves as applicable
- 10.5. Safety goggles
- 10.6. Dust Mask

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10.7. Gum boot

11. SIGNIFICANT RISK PARAMETERS

11.1. Quality Management System: Low

11.2. Impact on Environment: Medium

11.3. Health and Safety Risk: High

11.4. Energy Management: Low

11.5. Asset Management Risk: High


12. PROCEDURE

12.1. Work Procedure

- (1) Routine maintenance of Automation panel (once in a year)
 - (a) Check the condition of the Automation panel/device and decide whether maintenance is to be carried live or shutdown is required. Inform the control room related to the same.
 - (b) First remove the excess dust with the help of brush or cotton waste.
 - (c) After that use vacuum cleaner / blower to remove the fine dust from the panel / device.
 - (d) Properly clean the ventilation and check for proper air flow to the devices
 - (e) Check the tightness of the connectors, Cable glands, earthing terminals and attend the defects if found.
 - (f) Check proper tagging and dressing and rectify if problem found.
 - (g) Connect the device and power it up. Check for any error.
 - (h) After successful communication wait for some time and observe the communication behavior of the connected devices. It should not give any kind of error.
 - (i) Cross check with control room for any SCADA data non-availability before leaving the site.

12.2. Housekeeping

- (1) The team shall at all the times keep the site free from the accumulation of waste materials and debris and upon completion of work shall clear away and dispose all the surplus materials, rubbish and temporary works of whatsoever nature and kind. The team shall ensure clean and tidy site.

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13. IMPACT ANALYSIS OF SIGNIFICANT RISKS

13.1. Quality Management System

- (1) Details of Quality Issues involved
 - (a) Incompetent manpower (Poor workmanship)
- (2) Details of Quality Assurance plan
 - (a) Ensure work to be carried out as per OEM Manual

13.2. Health and Safety

- (1) Details of Health and Safety Hazard involved
 - (a) Exposure to screen radiation
 - (b) Excessive workload
 - (c) 'Continuous Sitting
 - (d) Flash over during isolation or energization or wrong isolation
 - (e) Fire hazard due to electric flash over during switching operation of VCB locally
 - (f) Negligence of use of safety PPEs / Non usage of PPEs/ Use of faulty PPEs
 - (g) Flashover due to equipment failure
 - (h) Flash over due to earthing on live part (Local Earthing through earth lead)
 - (i) Use of faulty Tools
 - (j) Contact with sharp edges
 - (k) Animal/ insect bite
 - (l) Contact with Live terminal/ cable/ wire/ busbar
- (2) Health and Safety Precautions required
 - (a) Use all required PPEs during execution of the job

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- (b) Keep the First aid box ready within reachable limit for any exigency during work
- (c) Conduct Toolbox talk in presence of all crew members about health & safety precautions
- (d) Tools and PPE Checking
- (e) Use extension board with ELCB for LT supply and Provision of Body earthing
- (f) Training on PPE
- (g) Training on Road safety policy & guideline

13.3. Environment

- (1) Details of Environmental impact
 - (a) Resource depletion
 - (b) Land contamination
- (2) Precautions to minimize Environmental impact
 - (a) Ensure that Material consumption monitored during and after work.
 - (b) Ensure that all waste including hazardous waste collected & segregated and stored at defined area
 - (c) Ensure that all plastic waste, metal waste, wooden waste Collected and submitted to the store/scrap yard for proper disposal as per relevant Waste Management OCP no TPDF02-STO01-OCP-006 & 008.

13.4. Energy Management

- (1) Details of energy use involved
 - (d) Consumption of auxiliary power by testing equipment & tools during work
- (2) Precautions to minimize energy use
 - (a) Switch off supply when not in use during work.
 - (b) Ensure energy efficient tools and equipment

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13.5. Asset Management

- (1) Details of Asset related risks
 - (a) NIL
- (2) Mitigation plan for asset related risks
 - (a) Work to be carried out under authorized person supervision
 - (b) Any deviation such as damage, loss of the asset-SAP Notification (Fault Notification) to be generated for further action

14. LIST OF ATTACHMENTS

Sr.	Document /Record Description	Reference No.
1	SCADA Routine Maintenance Checklist	TPDF02-DIS01-OCP-015-F01
2	PPES TOOLS CHECK LIST	TPDF02-DIS01-CHK-001-F06

***** End of Procedure *****