

|                                                                                   |                                        |                                                                                                                                                                                                         |                                                               |               |                                                                                                     |                                                |                           |     |    |                                                         |
|-----------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------|-----|----|---------------------------------------------------------|
|  |                                        | <div><br/><b>TP WESTERN ODISHA DISTRIBUTION LIMITED</b><br/>(A Tata Power and Odisha Government Joint Venture)</div> |                                                               |               |                                                                                                     |                                                |                           |     |    |                                                         |
|                                                                                   |                                        | FIELD QUALITY PLAN                                                                                                                                                                                      |                                                               |               |                                                                                                     |                                                |                           |     |    |                                                         |
| Doc. Title                                                                        |                                        | Field Quality Plan for Distribution Sub-Station (DSS)                                                                                                                                                   |                                                               |               |                                                                                                     |                                                |                           |     |    |                                                         |
| Doc. No.                                                                          |                                        | TPWODL-Quality-FQP-02                                                                                                                                                                                   |                                                               |               |                                                                                                     |                                                | Date: 01.12.2025          |     |    |                                                         |
| Rev. No.                                                                          |                                        | 0                                                                                                                                                                                                       |                                                               |               |                                                                                                     |                                                | Other detail:             |     |    |                                                         |
| Prepared By: LE, Quality                                                          |                                        |                                                                                                                                                                                                         |                                                               |               | Reviewed by: TL, Quality                                                                            |                                                | Approved By: HOG, Quality |     |    |                                                         |
| A.                                                                                | Process Description: -                 |                                                                                                                                                                                                         | Pre-Execution Check                                           |               |                                                                                                     |                                                |                           |     |    |                                                         |
| Sl. No.                                                                           | Activity                               |                                                                                                                                                                                                         | Characteristics                                               | Type of Check | Acceptance Norms                                                                                    | Reference Standard                             | Frequency of Check        |     |    | Remarks                                                 |
|                                                                                   |                                        |                                                                                                                                                                                                         |                                                               |               |                                                                                                     |                                                | BA                        | SSE | QA |                                                         |
| 1                                                                                 | Marking                                | 1.1                                                                                                                                                                                                     | Demarcation of location of boundary/ fencing                  | Visual        | As per Estimate/SLD.                                                                                | Estimate/ RO/SLD                               | P                         | W   | R  | P - Perform<br>W - Witness<br>R - Review & Verification |
|                                                                                   |                                        | 1.2                                                                                                                                                                                                     | Demarcation of location of DTR                                | Visual        | As per Estimate/SLD.                                                                                | Estimate/ RO/SLD                               | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 1.3                                                                                                                                                                                                     | Demarcation of location of DP and other Pole for DSS (if any) | Visual        | As per Estimate/SLD.                                                                                | Estimate/ RO/SLD                               | P                         | W   | R  |                                                         |
| 2                                                                                 | Receipt & Storage of Materials         | 2.1                                                                                                                                                                                                     | Receipt at Store/Site                                         | Visual        | Material make to be verified as per Approved Manufacturer List of TPWODL                            | MDCC/ Inspection report /Original Invoice Copy | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 2.2                                                                                                                                                                                                     | Visual Inspection of Materials                                | Visual        | Damaged during transit are stacked separately if any.                                               | As per standard                                | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 2.3                                                                                                                                                                                                     | Storage of Materials                                          | Visual        | Received materials are stored as per standard practice.                                             | As per standard                                | P                         | W   | R  |                                                         |
| 3                                                                                 | Availability of Material and resources | 3.1                                                                                                                                                                                                     | All materials should be available as per estimated BOQ.       | Visual        | There should not be any damage/ deterioration in the available materials.                           | Estimate/ RO                                   | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 3.2                                                                                                                                                                                                     | Availability of Manpower                                      | Visual        | Required Manpower shall be available.                                                               | As per standard                                | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 3.3                                                                                                                                                                                                     | Availability of Tools & Tackles for the execution of job.     | Visual        | All Tools & Tackles for the execution of job shall be readily available in good condition.          | As per standard                                | P                         | W   | R  |                                                         |
| 4                                                                                 | Transportation                         | 4.1                                                                                                                                                                                                     | Transportation of material.                                   | Visual        | Transportation of material from BA store to site in proper way to avoid any damage to the material. | As per standard                                | P                         | W   | R  |                                                         |
| B.                                                                                | Process Description: -                 |                                                                                                                                                                                                         | During Execution Check                                        |               |                                                                                                     |                                                |                           |     |    |                                                         |
| Sl. No.                                                                           | Activity                               |                                                                                                                                                                                                         | Characteristics                                               | Type of Check | Acceptance Norms                                                                                    | Reference Standard                             | Frequency of Check        |     |    | Remarks                                                 |
|                                                                                   |                                        |                                                                                                                                                                                                         |                                                               |               |                                                                                                     |                                                | BA                        | SSE | QA |                                                         |
| 5                                                                                 | Pole Erection                          | 5.1                                                                                                                                                                                                     | Excavation of Pit                                             | Visual        | 1/6th of length of the Pole.                                                                        | Approved Drawing                               | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 5.2                                                                                                                                                                                                     | Pole grouting/concreting.                                     | Visual        | Concrete volume & mix ratio shall be as per Estimate/RO.                                            | Estimate/RO/Approved Drawing                   | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 5.3                                                                                                                                                                                                     | Pole alignment                                                | Visual        | Alignment of Pole shall be proper.                                                                  | As per standard                                | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 5.4                                                                                                                                                                                                     | Muffing / Couping                                             | Visual        | Concrete volume & mix ratio shall be as per Estimate/RO.                                            | Estimate/RO/Approved Drawing                   | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 5.5                                                                                                                                                                                                     | Anti-climbing device                                          | Visual        | Anti-climbing devices like Danger Board & Barbed Wire shall be fixed as per drawing.                | Estimate/RO/Approved Drawing                   | P                         | W   | R  |                                                         |
|                                                                                   |                                        | 5.6                                                                                                                                                                                                     | Zebra Painting                                                | Visual        | Zebra painting shall be done as per Estimate/RO.                                                    | Estimate/RO/Approved Drawing                   | P                         | W   | R  |                                                         |

| Sl. No. | Activity                                      |     | Characteristics                                            | Type of Check | Acceptance Norms                                                                                                                                            | Reference Standard | Frequency of Check |     |    | Remarks |
|---------|-----------------------------------------------|-----|------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|-----|----|---------|
|         |                                               |     |                                                            |               |                                                                                                                                                             |                    | BA                 | SSE | QA |         |
| 6       | HT Stay Set                                   | 6.1 | Excavation of Pit                                          | Physical      | As per Approved stay construction Drawing                                                                                                                   | Approved Drawing   | P                  | W   | R  |         |
|         |                                               | 6.2 | Grouting of Anchor plate and Anchor rod with earth Filling | Physical      | As per Approved stay construction Drawing                                                                                                                   | Approved Drawing   | P                  | W   | R  |         |
|         |                                               | 6.3 | Erection of Guy insulation                                 | Physical      | As per Approved stay construction Drawing                                                                                                                   | Approved Drawing   | P                  | W   | R  |         |
|         |                                               | 6.4 | Stay Wire                                                  | Physical      | 1. Stay wire size to be as per RO/Estimate.<br>2. Proper fixing and tightening to be done for stay wire.                                                    | Approved Drawing   | P                  | W   | R  |         |
|         |                                               | 6.5 | Fixing of Complete Stay set                                | Physical      | Complete Stay set includes:<br>1. Turn buckle assembly<br>2. Stay Rod & Stay Plate<br>3. Stay insulator<br>4. Stay Wire<br>5. Stay clamps with nuts & bolts | Approved Drawing   | P                  | W   | R  |         |
| 7       | DTR Plinth<br>(in case of Plinth mounted DTR) | 7.1 | Depth & size of Plinth                                     | Visual        | Plinth depth & size shall be as per the Drawing.                                                                                                            | Approved Drawing   | P                  | W   | R  |         |
|         |                                               | 7.2 | Concrete mix                                               | Visual        | Concrete volume & mix ratio shall be as per Estimate/RO.                                                                                                    | Approved Drawing   | P                  | W   | R  |         |
|         |                                               | 7.3 | Concrete finish                                            | Visual        | Finishing of concrete foundation shall be done properly.                                                                                                    | Approved Drawing   | P                  | W   | R  |         |
|         |                                               | 7.4 | Curing                                                     | Visual        | Proper curing of concrete foundation shall be done before erecting DTR.                                                                                     | As per standard    | P                  | R   | R  |         |
| 8       | DTR Erection                                  | 8.1 | Pre-commissioning Tests                                    | Visual        | Pre-commissioning Tests of DTR shall be done before erection (like IR test, oil level check etc.)                                                           | As per standard    | P                  | W   | R  |         |
|         |                                               | 8.2 | DTR erection over foundation (for Plint Mounted DTR)       | Visual        | DTR shall be erected over the foundation so that no any cracks shall be there on foundation.                                                                | As per standard    | P                  | W   | R  |         |
|         |                                               | 8.3 | Conductor/ Cable connections                               | Visual        | Conductor/ Cable connections at the bushings shall be done properly through connectors to avoid any hotspot.                                                | As per standard    | P                  | W   | R  |         |
|         |                                               | 8.4 | Glanding                                                   | Visual        | Proper glanding of DTR Termination Box shall be done (if any, available).                                                                                   | As per standard    | P                  | W   | R  |         |
|         |                                               | 8.5 | Working clearance                                          | Visual        | Working clearance shall be there on HV & LV side of DTR.                                                                                                    | CEA Guidelines     | P                  | R   | R  |         |
|         |                                               | 8.6 | Breather & Arcing Horns                                    | Visual        | Breather & Arcing Horns shall be fixed. (Colour of Silica Gel must be Blue).                                                                                | Approved Drawing   | P                  | R   | R  |         |
|         |                                               | 8.7 | Oil leakage check                                          | Visual        | No any oil leakage shall be there in DTR.                                                                                                                   | As per standard    | P                  | W   | R  |         |
|         |                                               | 8.8 | Erection of DTR (In case of DP mounted DTR)                | Visual        | In case of DP mounted DTR, it should be properly fixed over the Base channels through Nut-bolts.                                                            | Approved Drawing   | P                  | W   | R  |         |
|         |                                               | 8.9 | Belting Angle (In case of DP mounted DTR)                  | Visual        | Belting angles to be installed properly.                                                                                                                    | Approved Drawing   | P                  | W   | R  |         |

| Sl. No. | Activity     |      | Characteristics                                                              | Type of Check | Acceptance Norms                                                                                                                                                    | Reference Standard           | Frequency of Check |     |    | Remarks |
|---------|--------------|------|------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|-----|----|---------|
|         |              |      |                                                                              |               |                                                                                                                                                                     |                              | BA                 | SSE | QA |         |
| 9       | DP Structure | 9.1  | Alignment of DP                                                              | Visual        | Alignment of DP structure shall be proper.                                                                                                                          | As per standard              | P                  | W   | R  |         |
|         |              | 9.2  | Fitting of Structural items (Channel, Angle, Fish Plate etc.)                | Visual        | Fitting of Channels, Angles etc. shall be done as per Estimate/RO/drawing.                                                                                          | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 9.3  | Installation of LA                                                           | Visual        | LA shall be fixed as per the drawing.                                                                                                                               | Approved Drawing             | P                  | W   | R  |         |
|         |              | 9.4  | Installation of AB Switch                                                    | Visual        | AB Switch shall be fixed as per the drawing.                                                                                                                        | Approved Drawing             | P                  | W   | R  |         |
|         |              | 9.5  | Installation of HG Fuse                                                      | Visual        | HG Fuse shall be fixed as per the drawing.                                                                                                                          | Approved Drawing             | P                  | W   | R  |         |
|         |              | 9.6  | Installation of AB Switch Pipe & Handle                                      | Visual        | AB Switch Pipe & Handle to be properly clamped & to be in proper operating condition. Operating Handle shall be at easily accessible height.                        | Approved Drawing             | P                  | W   | R  |         |
|         |              | 9.7  | Conductor Jumpering                                                          | Visual        | Conductor Jumpering shall be done properly through PG Clamp/IPC/Wedge Connector.                                                                                    | Estimate/RO                  | P                  | W   | R  |         |
|         |              | 9.8  | GIS & Zebra Painting                                                         | Visual        | GIS Numbering & Zebra stripping to be done.                                                                                                                         | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 9.9  | Fixing of Pin & Disc Insulators                                              | Visual        | All Disc & other loose points shall be properly supported by guard Pin Insulator for having proper clearance with conducting parts using PG Clamp.                  | Approved Drawing             | P                  | W   | R  |         |
|         |              | 9.1  | Fixing of Bird Guard                                                         | Visual        | HG Fuse shall be fixed as per the Estimate/RO/drawing.                                                                                                              | Approved Drawing             | P                  | W   | R  |         |
| 10      | LTDB         | 10.1 | LTDB erection.                                                               | Visual        | LTDB shall be erected over the foundation after proper curing of foundation so that it should get proper strength. Also no any cracks shall be there on foundation. | Approved Drawing             | P                  | W   | R  |         |
|         |              | 10.2 | Cable connection                                                             | Visual        | Cable connections shall be done properly through Lugs to avoid any hotspot.                                                                                         | Approved Drawing             | P                  | W   | R  |         |
|         |              | 10.3 | Glanding                                                                     | Visual        | LTDB glanding shall be done properly.                                                                                                                               | CEA Guidelines               | P                  | W   | R  |         |
|         |              | 10.4 | Operation of MCCB, MCB & Fuses.                                              | Visual        | Manual Operation of MCCB, MCB & Fuses shall be checked.                                                                                                             | As per standard              | P                  | W   | R  |         |
|         |              | 10.5 | Depth & size                                                                 | Visual        | Foundation depth & size shall be as per the Drawing.                                                                                                                | Approved Drawing             | P                  | W   | R  |         |
|         |              | 10.6 | Concrete mix                                                                 | Visual        | Concrete volume & mix ratio shall be as per Estimate/RO.                                                                                                            | Approved Drawing             | P                  | W   | R  |         |
|         |              | 10.7 | Concrete finish                                                              | Visual        | Finishing of concrete foundation shall be done properly.                                                                                                            | Approved Drawing             | P                  | W   | R  |         |
|         |              | 10.8 | Curing                                                                       | Visual        | Proper curing of concrete foundation shall be done before erecting LTDB.                                                                                            | As per standard              | P                  | R   | R  |         |
| 11      | Cable Laying | 11.1 | Cable laying                                                                 | Visual        | Cable laying shall be done properly as per approved drawing.                                                                                                        | Approved Drawing             | P                  | W   | R  |         |
|         |              | 11.2 | Glanding & Vermin Proofing at Cable termination points of DTR LV side & LTDB | Visual        | Cable termination shall be done properly at DTR LV and LTDB.                                                                                                        | As per standard              | P                  | W   | R  |         |
|         |              | 11.3 | Cable Rising                                                                 | Visual        | Cable rising to be done properly at PSC Pole through supporting Clamps.                                                                                             | Estimate/RO/Approved Drawing | P                  | W   | R  |         |

| Sl. No. | Activity     |      | Characteristics                                                     | Type of Check | Acceptance Norms                                                                              | Reference Standard           | Frequency of Check |     |    | Remarks |
|---------|--------------|------|---------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------|------------------------------|--------------------|-----|----|---------|
|         |              |      |                                                                     |               |                                                                                               |                              | BA                 | SSE | QA |         |
| 12      | Fencing      | 12.1 | Fencing                                                             | Visual        | Fencing to be done as per the Estimate/ RO/drawing.                                           | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 12.2 | Tightening of fencing                                               | Visual        | Fencing to be tightened properly.                                                             | As per standard              | P                  | W   | R  |         |
|         |              | 12.3 | Gate installation                                                   | Visual        | Gate to be installed over the fencing.                                                        | As per standard              | P                  | W   | R  |         |
|         |              | 12.4 | Sand & Gravel filling                                               | Visual        | Sand & Gravel filling shall be done.                                                          | As per standard              | P                  | W   | R  |         |
|         |              | 12.5 | Earthing of fencing (in case of GI fencing).                        | Visual        | Earthing of fencing shall be done.                                                            | As per standard              | P                  | W   | R  |         |
| 13      | Earthing     | 13.1 | 1 - Earthing of DP structure, HG Fuse, AB Switch, & its Handle etc. | Visual        | Earthing of DP structure, HG Fuse, AB Switch, & its Handle etc. shall be done properly.       | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 13.2 | 2 - Earthing of LA                                                  | Visual        | Separate Earthing of LA shall be done.                                                        | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 13.3 | 3 & 4 - Earthing of DTR Body                                        | Visual        | Earthing of DTR Body shall be done properly.                                                  | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 13.4 | 5 & 6 - Earthing of DTR Neutral                                     | Visual        | Earthing of DTR Neutral shall be done properly.                                               | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 13.5 | 7 - Earthing of LTDB & Fencing                                      | Visual        | Earthing of LTDB & Fencing shall be done properly.                                            | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 13.6 | Earthing Pipe                                                       | Visual        | Earthing Pipe to be buried inside ground at proper depth and Chemical Compound shall be used. | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 13.7 | Earth Pit                                                           | Visual        | Earth Pit to be properly constructed as per drawing.                                          | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
|         |              | 13.8 | Earth Pit Resistance                                                | Measurement   | Earth Pit Resistance to be measured and marked over the Earth Pit with paint.                 | Estimate/RO/Approved Drawing | P                  | W   | R  |         |
| 14      | Nomenclature | 14.1 | Nomenclature of DSS                                                 | Visual        | Name of DSS shall be mentioned with paint.                                                    | As per standard              | P                  | W   | R  |         |

#### Abbreviations:

BA: Business Associate

SSE: Site Supervising Engineer  
(Project/SDO/Section Manager/Div Estimator)

QA: Quality Assurance Team