

Engineering Department

DOs & DON'T's

Works – General

- Get **Schedule & Conditions** before starting the work. Read **special conditions**.
- Maintain the requisite **registers** for the work – List given in PCE Ir. Dt.27-05-05
- Take proper **inventory** of material to be released and obtain contractor's signature
- Ensure that **contractor's representative** is nominated in writing.
- Departmental **tools & plant** to be given to contractor only under conditions mentioned in the agreement with deduction of **hire charges**.
- Beware of **Vitiation** due to non-operation of unworkable items or Excess operation of high value items. Better to prepare Vitiating statement with every on account bill.
- Galvanising work: Follow instructions given under ESO.59
- Obtain contractor/representative **signature** in the registers and while issuing p.way material.
- No un-necessary **correspondence** with the contractor on contract matters.
- Obtain relevant **specifications & Codes** required. Get test certificates of material wherever prescribed.
- Ensure **Test checks** are done as prescribed.

Works – P.Way

- Do not use **departmental labour** along with contractor's labour. Use departmental labour only for supervision and safety.
- Ensure that **released p.way material** is brought back to the required point and neatly stacked by the contractor.
- Transportation of material – Ensure Proper **gate passes** & correct **leads**.

Vehicle **hiring** contracts – Maintain records of movement & work done.

- **Intangible items** (Packing, Ballast dressing etc.)– Maintain records of labour used & work done.
- **Painting** works – Check quantity of paint used by the contractor. Ensure stage-wise thickness(Elco meter).
- *Drawing **p.way material** from **depots & accountal**: Follow the instructions issued by CTE vide JPO No.1/TS/2008.*
- *Scrap: Strictly follow the instructions of JPO No.1/2013 in accountal and disposal.*

Works – Ballast Supply

- Follow latest **guidelines&specifications** (Engg. Standing Order dt. 03-09-07).
- MBs are to be dealt as per para1314 of Engg.code and RB guidelines.
- Control **quality** at the source by checking the **quarry**.
- **Depots**: Ensure **3 days** between bill passing & hopper loading. Ensure **3 days** between ground clearance & further collection.

Ensure receipt of ballast test report from laboratory before taking measurements. Accept the ballast only when results are within the specified limits.

- Intimate **Engg. control** through a message after clearance of a depot / dumping.
- **Depots**: Account the left over quantity after theoretical measured quantity is exhausted. **Bulkage above 5%** to be investigated.
- **BT working**: Ensure **full loading** up to brim (40.3 Cum.); Send 6 copies of **challans** along with the BT.

Works – Buildings, Bridges etc.

- Cement, Steel: Obtain lab **testcertificates**& purchase **bills** before making payments.
- Bricks, Sand, Aggregate, Moorum etc., - Check **quality at site**& send for lab testing
- Tiles, Paints, Sanitary fittings etc., - Approve the **sample** after checking the specifications.
- Earth work: Follow instructions given under ESO.51/2006 – Use only printed books supplied by railways. Level books shall be treated on par with MBs. Initial levels shall be recorded before commencement of work and copy of the

Initial Level book to be submitted to the divisional office. source of soil to be approved prior to execution of work, Soil samples to be sent for testing at regular intervals as per GE-14 towards COE and Blanketing material .

- **Pipe line works:** Follow instructions given under **ESO.49/2006** – Wt. tolerance: **10%**, Accountal of pipes after check etc.

- **Concrete** – No **volume** based batching in design mixes.

-Use **vibrators** for compaction.

-Use **leak proof** shuttering to prevent honey combing.

-Record test **cube results**.

-Ensure adequate **Curing**.

-Major and important concreting works should be done in presence of JE/SSE only.

- **Aggregate:** Use **graded** aggregate. Conduct **sieve analysis** and record results.
- **Sand:** Conduct sieve analysis to determine grading (Zone-I,II,III or IV) for appropriate usage.
- **Stone masonry:** Read specifications for **CRS & UCRS** masonry. Ensure adequate bond stones.
- **Cement:** Check **grade** of cement used (33,43,53). Consumption & Progress of work should tally.
- **Roof leakage:** Indicates poor quality of concrete and workmanship. Sufficient roof slope to be ensured during working.
- **Wire Mesh:** During execution of mosquito proof wire mesh, ensure proper gauge of Mesh .
- **STEEL :** Structural and reinforcement steel should be of ISP brands or approved by the competent authority only.

Earth Works

- **Earth Work in cutting:** Change in **classification** to be test checked by DEN / Sr.DEN / Dy.CE
- **Earth work Compaction:** Use **specified roller** of required capacity in the agreement.

- Moorum blanketing: Ensure the blanketing material to confirm RDSO guidelines.
- Electronic Pug mills to be used for proper blending of balanketing material.

Works – Estimates, Bills etc.

- Approval of Drawings while processing of Estimate /before calling of tenders.
- Quantities: Assess **realistic quantities to avoid variations**; Preserve **rough calculations** in file for reference & check.
- Unit of Payment: Check the **unit of payment** while making calculations.
- Placing of Zonal work orders and submission of bills as per guidelines .
- Test checks: **100%** test check of all **hidden measurements**. Check should be against a specific item in MB with **initials and date**.
- Variation: Normally to be avoided, if warranted proper technical data should be furnished to support the same.
- Technicalregister: Enter the details as executed at site. Take approvals for **deviations** from original plan.
- Record **deductions** in payment for hiring of railway material or deviation from specifications. And also deduct in payment as per agreement conditions prescribed if any.
- Do not record measurements for **new items** without taking administrative approval of competent authority.
- Give adequate time for execution of work orders in **Zonal works**. Deduct penalty for non-execution of work orders.

Works – Contract management

- Works to be executed within the currency period to avoid complications.
- Currency extensions shall be done judiciously.
- Long existing contracts to be targetted for closure.

Tenders

- Tenders are to be finalized with in validity period only.
- Similar nature of works to be followed as per Latest guidelines issued by PCE/SCR
- Zonal tenders are to be finalized before 30th June.