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STANDARD OPERATING PROCEDURES FOR CIVIL WORKS 2024

Version 2.0



Armoured Vehicles Nigam Limited
Ministry of Defence
Government of India Enterprise
HVF Road, Avadi, Chennai - 600054.



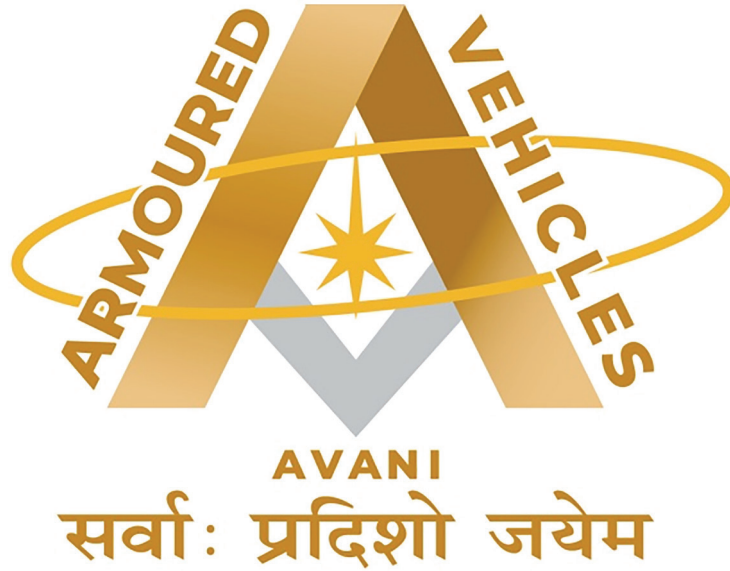
STANDARD OPERATING PROCEDURES

For

CIVIL WORKS 2024

VERSION-2.0

(w.e.f : 1st January 2025)



Armoured Vehicles Nigam Limited (AVNL), Chennai - 600054
Department of Defence Production, Ministry of Defence
Govt of India

Foreword

(Second Edition 2024)

AVNL SOP (Civil Work) has been revised as Second Edition, 2024 as part of initiatives to improve the Civil Works infrastructure, Civil Projects and accelerated growth of AVNL. Need of the hour is to maintain and up keep the existing civil infrastructure and create new civil infrastructure to support the growth of the organization.

2. In order to make AVNL SOP (Civil Work) contemporary, the necessity of review and updation of the existing SOP was felt. Since the publication of AVNL SOP (Civil Work), 2021 there have been many developments, policy initiatives, clarifications, stakeholders' deliberations, necessitating through revision of procurement manual.

3. The provisions in AVNL SOP (Civil Work) 2024 are within the ambit of DOE Manuals 2022, GFR 2017 (amended from time to time) and CAG observations keeping in view the specific requirements of Civil Work.

4. This report aims to bring out the organizational setup, roles and responsibilities, assets & manpower requirement for AVNL to strengthen existing Civil Works at Units and establishment of AVNL Civil Works.

5. In this context, this Civil Works infrastructure restructuring and SOP has been comprehensively prepared. It focus on creating ecosystem for Civil Projects and increasing the Civil Works of the AVNL to have required infrastructure and ensure the growth of the organization and self-reliance.

6. I would like to acknowledge the outstanding work done by the team led by Shri. Bolewar Babu, GM, Shri. K.Tulsi Rao, Jt.GM, Shri. P R Chaudhary, DGM, Shri. Saurabh Agarwal, DGM, Shri. Yogesh Kumar, WM and also all other officers who reviewed the drafts of the SOP and provided their valuable inputs. This collaborative efforts will lead to the rejuvenating the organisation and reaching new milestones.

7. I am sure that this SOP will provide guideline to deals with the subject in adequate manner ensuring accountability commensurate with responsibility at different decision making level.

Avadi, Chennai - 600 054.

Date : 28.10.2024



(SANJAY DWIVEDI)
CMD/ AVNL

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1. Objective:

- 1.1. The objective is to ensure that all Civil Works, Electrical Works and Conservancy Services in all units under Armoured Vehicles Nigam Limited (AVNL) are completed within planned time frame and in a cost-effective manner for proper upkeep & hygiene of Factory & Estate.
- 1.2. Present standard operating procedure (SOP) enumerates the mechanism for execution of works and services undertaken through Departmental Contract.
- 1.3. This SOP is also applicable for the works to be executed through MES/DRDO/CPWD/any Public Works Organization (PWO) /designated Central or State Government Agency. After issuance of Admin Approval, the procedure prevalent with the above mentioned agencies will be followed by them.

2. Basic Principles:

- 2.1. For proper upkeep of factory and estate the necessary works & Services should be planned timely and proposals to be initiated based on requirement.
- 2.2. Acceptance of necessity (AON) forms basic document for initiation of any work.
- 2.3. Works/services will be executed after issuance of Administrative Approval and Technical Sanction by competent authority as per latest delegated financial power issued by AVNL.
- 2.4. New works should be sanctioned after due diligence taking into consideration existing assets/infrastructure, time and cost required to complete new works.
- 2.5. If an ADP (Annual Development Plan approved by CFA/AVNL) approved work is not commenced within one year of the date of demand Approval, the same will be cancelled and a fresh proposal will be included in the subsequent year ADP for approval of Demand by AVNL.
- 2.6. To undertake emergency works/services, procedure laid down in Appendix 'F' of this SOP would be followed.
- 2.7. During the course of financial year, all units will contain expenditure within the allotted fund under respective code head.
- 2.8. If the final executed cost of any Works or Services exceeds the amount of Administrative Approval (AA) by more than 10%, prior sanction of CFA in form of Financial Concurrence (FC) is to be obtained and revised AA to be issued.

2.9. No project or work will be split up to bring it within the sanctioning powers of a lower authority. For purpose of approval and sanctions, a group of works which forms one project, shall be considered as one work. The approval or sanction of the higher authority for such a project which consists of such a group of work should not be circumvented by resorting to approval of individual works using the powers of approval or sanction of a lower authority. If the component parts of a project are mutually independent of each other and are not dependent on the execution of one or more such component parts, each such part should be treated as a separate project. In case the functioning of a project is dependent on the execution of one or more other projects, the entire group of such projects should be taken as a single scheme/project and provision made accordingly. If however, a scheme consists of revenue component, capital expenditure and loan content, etc. the provision for which is required to be exhibited separately under respective Heads of Account, there is no objection to the provision being made in the relevant Heads of Account; but the authorities concerned should ensure that the sanction of the Competent Authority is obtained for the integrated scheme as a whole depending on the total cost of the scheme. It will not be permissible in such cases to split up a scheme treating each part as a scheme in order to avoid the sanction of a higher authority.

(DoE Works Manual 2022 Cl. 1.10 (iii & iv) Pg. No. 13)

2.10. Either of MES SSR & CPWD DSR to be followed for estimation with suitable Market Variation/Cost Indices issued by MES & CPWD respectively. Further, if estimation is being done with the use of MES SSR and any item is not available in MES SSR, the same can be picked from CPWD DSR and vice versa.

2.11. Manual on Procurement of Works issued by DoE/MES Contract Manual/CPWD Contract Manual to be referred for issues not mentioned in this SOP in order of priority.

3. Works & Services:

3.1. Works and Services based on technical as well as statutory requirements of Industrial Units are to be approved by the Competent Financial Authority (CFA).

3.2. Works & Services of residential, Office and other accommodations including amenity buildings are to be planned based on Specification and scale of amenities of General Pool residential accommodations issued by CPWD. If any provision not available in CPWD and MES scale of accommodation, scale of offices for various officers issued by Central Government can be used. Any Special provision not

covered in CPWD/MES manual, AVNL Corporate office guidelines shall be followed.

- 3.3. Works related to construction and upkeep of roads to be followed based on technical and functional requirement.
- 3.4. While planning, due importance to be given for Swachh Bharat (Appendix 'A').
- 3.5. Green building Concept (Appendix 'B') and Rain Water Harvesting (Appendix 'C') are to be incorporated in new constructions invariably and in existing construction wherever possible.
- 3.6. Furniture in general will not be a part of civil works. However, Furniture & furnishings which are integral part of building may be taken in Capital Civil Works.

4. Classification of works:

Works are primarily classified into original Works (Capital works) and Repairs Works (Revenue Works).

4.1. Original Works (Capital Works):

- a. Original works comprises new construction of buildings and Roads with necessary services.
- b. Extension/Renovation going to increase area of building and road.
- c. Reconstruction of buildings and roads, widening of roads, works necessary to bring into use buildings and services newly purchased or previously abandoned or rendered unusable by extraordinary causes such as buildings damaged by storm, fire or earthquake are fall in the category of original works.
- d. In case where additions and alterations to a building become necessary resulting in change in the plinth area, the work will be sanctioned as one project and treated as a Capital Work.
- e. Repair/ Renovation work exceeding Rs. 50 lakhs shall be treated as Capital Works and it has to be approved as capital civil work.

4.2. Special Works:

- a. Items of works and services not falling within the ambit of routine and regular works defined for residential and amenity buildings as per Specification and scale of amenities of General Pool residential accommodations issued by CPWD are referred to as 'Special Works'.
- b. These may be approved by the competent financial authority based on the recommendation of technical committee comprising of

members from all the stake holders (user sections, safety section for explosive buildings and maintenance section). The necessity of the special work should be justified.

- c. No Special Works can be prelude for introduction of New Practices or Change of Scales. The estimate of a project may include special items of work only after Competent Financial Authority has accorded approval of such items.
- d. If a building or services is categorized as "Special", all the connected items thereto will be termed as "Special".

4.3. Revenue Works :

- a. Repairs comprise of all maintenance and periodical services, (**as per periodicity and specification in Appendix 'G'**) Resurfacing of roads, stability testing (Every Five Years or as per Factories' Act), demolition of buildings, renewals and replacements as necessitated based on technical requirements.
- b. Work contract in the form of Term contract and percentage rate contract for daily maintenance requirement for Civil & Electrical works of Factory & Estate can be carried out as per requirement.
- c. Contract can be concluded for supply of Mason, Plumber, Carpenter, Electrician with their helper, along with tools & maintenance items for attending daily works (contractor has to quote based on minimum wages and its revision issued and to follow all regulations of labour laws) for Civil & Electrical works. Contractor shall supply manpower along with requisite tools & tackles and materials mentioned in TE. This contract shall also contain items for daily maintenance requirement (Civil & Electrical) of Factory & Estate. Contractor has to supply items mentioned in this contract on as and when required basis based on requisition issued by SIC and EIC.
- d. Resurfacing of roads should be carried out as per periodicity of 05 years (preferably) or based on the requirement to be decided by a board of officers as appointed by CGM/GM/HOD in case when condition of the road is found extremely bad.
- e. The thickness and specification of the resurfacing will be done as per the specification and thickness mentioned in the road register.
- f. In case of the road register is not available this aspect will be decided by the board of officers.

4.4. Service works Contract :

- a. Periodic cleaning (Every Six Month) and internal painting (if required) of all GSR (Ground Service Reservoirs), ESR (Elevated

Service Reservoirs) and overhead tanks of residential & non-residential buildings with required material & tools /tackles.

- b. Removal of vegetation grown on building, trimming of branches of trees leaning on buildings & electrical lines with required material & tools /tackles.
- c. Cleaning of roofs, chajjas and valley gutters etc. with required material & tools /tackles.
- d. Landscaping, Horticulture, Garden & Park Maintenance with required material & tools /tackles.
- e. Contract for Guest House upkeep & maintenance with required material & tools /tackles.

4.5. Maintenance Contract:

- a. Electrical installation operation & maintenance contracts.
- b. Water Supply system (Water Treatment Plant, Pump House, Over Head Tanks, Underground Tanks, daily operation & periodical maintenance as per Specification)
- c. Sewage Treatment System (Sewage Treatment Plant, Pump House, Underground Tanks, cleaning of main sewer line, sludge disposal, daily operation & periodical maintenance as per Specification)
- d. Solid Waste Management (Proper collection, segregation & disposal of solid waste of STP, ETP, Household waste of Factory & Estate as per Pollution Control Board norms.)
- e. Pest Control Services (for Factory & Estate)

4.6. Consultancy Services:

- a. Consultancy Services for Design, Drawing, detailed Estimation for new Capital Civil Works. CGM/GM/HOD may outsource consultancy service contract for construction of production buildings and connected services, maintenance buildings.
- b. The power delegated to CGM/GM to conclude Consultancy service contract will be used for the above purpose and booked to the same code head.

4.6.1. Pre Tendering activities are

- Preparation of Project report.
- Detailed Design & Engineering.
- Preparation of Architectural Plan, structural drawing, technical specifications, tender documents, bill of material.
- Preparation of detailed engineering drawings for internal & external

electrical services, water service, water supply, sanitary sewerage etc. based on detailed architectural plans for building services.

- The amount of Consultancy service charge should not normally exceed 4% of the project cost excluding GST. However, this may vary from case to case based on the scope and nature of Consultancy service contract and CWC may take appropriate decision in case of variations.

4.6.2. Post Tendering activities are

- Supervision of works.
- Ensuring quality.
- Measurement of work.

The above post tendering activities may be outsourced against Consultancy service contract with the approval of CMD justifying the reasons.

4.6.3. Stability of buildings can be got checked by autonomous and Government bodies.

4.6.4. Consultancy Service contract can be concluded against competitive tender amongst reputed agencies undertaking similar jobs for testing of buildings for stability.

4.6.5. The Consultancy Service Provider becomes entitled for payment of fees only on satisfactory completion of the entire Consultancy services covered by the Agreement.

4.6.6. If payment in stages is contemplated, the Consultancy Service Provider becomes entitled for the item-wise stage payment only on satisfactory completion of distinct stage. This will ensure that even if per chance, the Consultancy Service Provider ultimately fails to complete the entire Consultancy service in terms of the Agreement, the fees already paid does not become in fructuous (Note- the part Consultancy service rendered which is complete in itself, could be made use of by the department). Consultancy service provider is eligible for stage payment which is to be mentioned in the tender document.

4.6.7. Further, if and when item-wise stage payment is contemplated, a note should be added that Consultancy Service Provider shall be entitled to be paid fees to the extent of 90% only of the respective stage payment as per the schedule of fees, on satisfactory completion of that stage. The remaining 10% shall be paid with the Final Bill on satisfactory completion of the entire consultancy service as required under the Agreement.

4.6.8. Selection of Consultancy service contractor should be through two bid system.

4.6.8.1. Consultancy order can be placed on Government department/ institutes without call of tenders.

Consultancy work such as proof checking of structural design or original structural design of typical or special structure, assignment of specialized job requiring analysis of structures and soil investigation, Architectural/Landscape Design consultancy work and seeking expert advice for retrofitting of buildings or third party quality audit (TPQA) of the work (as per request of the client) can be assigned to IITs, NITs, Govt. Engineering College, Central Building Research Institute (CBRI) and other central/state Govt. Institutes, without call of tenders **(CPWD Works Manual 2022 Cl. 8.13 Pg. No. 48)**

4.6.9. Relevant TPC shall decide Consultancy service contract

4.6.10. Criteria for selection of Consultancy service contract would be as given below. Firm should have:

- At least 2 graduate engineers of similar background as mentioned in TE.
- Firm should have experience certificate for similar work executed in Govt./PSU/reputed private companies. These criteria can be modified by CGM/GM/HOD based on the discussion in CWC.

Note: Under Consultancy service contract, only hiring of Consultancy services is allowed and no individual man power will be hired.

5. Expenditure Code Heads:

5.1. Capital Works:

Major Head: 4076, Sub Major Head: 04, Minor Head: 111.

Expenditure on MES & Other Govt. Depts works		
1.	Carry over works	920/31
2.	New Works	920/32
Expenditure on Departmental works/ Depository Works		
1.	Carry over works	920/33
2.	New Works	920/34

5.2. Revenue Works:

Major Head: 2079, Minor Head: 111.

Expenditure on Building etc.		
1.	Expenditure on repairs of buildings other than residential quarters not forming capital assets	809/01
2.	Expenditure on repairs of residential quarters not forming capital assets.	809/02
3.	Expenditure on Stability of buildings, Demolition of buildings	809
4.	Expenditure on a. Term Contract and Percentage Rate contract b. Operation and Maintenance contracts. c. Service Contracts d. Consultancy	809

6. Delegation of Financial Powers:

As issued by AVNL CO for Capital Works, Revenue Works, Term Contracts & Percentage Rate contracts, Operation & Maintenance Services, Service Contracts and Consultancy Services.

7. CWC Structure:

As issued by AVNL. for all Capital Works, Revenue Works, Term Contracts & Percentage Rate contracts, Operation & Maintenance Services, Service Contracts and Consultancy Services. after issue of AA by CFA, tendering, SO placement & post tendering activities shall be at AVNL Unit.

8. Capital & Revenue works plan:

8.1. Capital Works Plan:

- 8.1.1. All units of AVNL will prepare Annual Development Plan (ADP), in consultation with Associated Finance.
- 8.1.2. ADP, comprising of Capital Works, duly concurred by associated finance & approved by HOD of unit would be forwarded to AVNL.
- 8.1.3. Supplementary ADP can be forwarded, only in case of urgent requirement, duly concurred by Associated Finance & approved by HOD of unit, justifying the reasons thereof.
- 8.1.4. While forwarding ADP to AVNL for approval of necessity, every proposal shall be accompanied by following documents:

a. Statement of Case for New Works:

Demands for new works/services in the form of a Statement of Case shall be approved by Competent Financial Authority. The Statement of Case will inter alia explain:

- Need for and scope of the works proposed including views / demand of stake holder.
- Whether besides construction works, the proposed project includes procurement / manufacture / installation / storage of new / special equipment or setting up new operation related facility including special repair and maintenance of capital assets with which the civil works have to be integrated.
- Type of construction required: authorized or special.
- The target date by which the completion of the proposed works is desired.
- The desired location and availability of land, if any.
- If land is not available, the time likely to be taken for obtaining the same and for site development, etc.
- Extent of enabling works and external services or utilities of preparatory nature required.
- Need for engaging an outside service provider, if any, for the total project or any part thereof, viz., pre-and post-administrative approval planning, design, detailed engineering, project management, etc.

b. Rough Indication of Cost (RIC)/Preliminary Estimate (Appendix 'D').

c. Drawing, wherever applicable, with Drawing No, north direction/ landmark, if any, dimension/scale etc. duly approved by GO/CO of engineering division.

d. Concurrence of associated Finance

8.1.5. ADP would be approved by Director/Operations, in consultation with AVNL/Finance approving the necessity of the works.

8.1.6. After approval of ADP, administrative approval by CFA (based on delegated Financial Power) to be issued for tendering and commencement of work.

8.2. Revenue works plan:

8.2.1. Repairs and maintenance works are to be carried out as per maintenance requirement and as per inspection reports of building maintenance section. Accordingly, necessity of repairs would be based on

- Inspection reports of safety and security agencies.
 - Technical requirement of production section and other sections of Factory.
 - Periodicity of maintenance
 - Reports of factory and estate round by CGM/GM/HOD
 - Inspection carried out by maintenance section and requirement raised.
 - Any other report after approval of CFA
- 8.2.2. It is advisable to plan annual maintenance work to assess the fund requirement for the year.
- 8.2.3. Based on requirement the estimate is to be prepared.
- 8.2.4. Before resorting to tendering of the work, Acceptance of Necessity (AON), Technical Sanction (TS) and Administrative Approval (AA) are to be issued from CFA.

9. Execution of works and services through Govt. Agencies like MES / DRDO / CPWD / designated Central or State Govt. Agencies.

The following are the major steps for execution of works through CPWD/ other govt. agencies-

- 9.1. Seeking of RIC and enabling estimate* (if required) by forwarding brief scope of work prepared by maintenance section/ Board of officers for projection of work in ADP.
- 9.2. Acceptance of demand /Issue of acceptance of necessity in ADP for total cost which includes the enabling cost also.
- 9.3. Finalization of detailed scope of work, time frame and other requirements if any by Board of Officers of Factory and construction agency. Recee-cum-siting-cum-costing board to be held.
- 9.4. Approval of board proceeding & submission of detailed estimate to CFA.
- 9.5. Issuance of Admin approval based on board proceedings and detailed estimates/ Preliminary estimate by HOD/ Unit irrespective of work falls within delegated financial power of HOD (Unit)/CGM (Operation) of AVNL CO/Director(Operations)/CMD of AVNL CO within approved cost as mentioned in AON.
- 9.6. No change in site is permissible however in exceptional circumstances it may be permissible with the approval of Director/ Operations/AVNL.

- 9.7. Signing of MoU between CGM/GM/HOD and other govt. agencies as per their formats (mutually agreed).
- 9.8. Deposit of appropriate amount/fund as per MoU terms and conditions can be released to Executing agencies.
- 9.9. Further processing shall be carried out by Executing govt. agencies as per their works procedure.
- 9.10. After issuance of WO by Executing govt. agencies, CGM/ GM/ HOD shall nominate his representative for day-to-day monitoring of the works and to liaison with Executing govt. agencies.
- 9.11. After completion of work/project handing over/taking over shall be carried out.
- 9.12. The list of documents at the time of handing over/taking over to be submitted by Executing govt. agencies as per Appendix 'E'. Officers nominated by HOD shall take over assets handed over after verifying the inventories.
 - * Enabling estimate will include the expenditure for soil investigation, site surveying, Design, Drawing and estimation.

**9.13 Execution of works and services through Public Works PSU/ Organizations:
Capital work may be assigned to:**

Any Public Sector Undertaking set up by the Central or State Government to carry out civil or electrical works after evaluating their financial strength and technical competence.

As an alternative a Ministry or Department may assign repair works estimated to cost above Rupees thirty lakh and original works of any value to

- i. Any Public Sector Undertaking set up by the Central or State Government to carry out civil or electrical works
- or
- ii. To any other Central/State Government organisation/PSU which may be notified by the Ministry of Urban Development (MoUD) for such purpose after evaluating their financial strength and technical competence.

(DoE Works Manual 2022 Cl. 3.1.3 Pg. No. 22)

9.14 Procedure for Assigning Work to PWO or PSU/ Organizations:

- i. For the assignment of work under provisions of para above to PSUs, the Ministry/Department shall ensure competition among all such eligible PSUs/ organisations. This competition shall be essentially on the lump sum service charges to be claimed for

execution of work. The award of work to a PSU should be taken as Project Management Consultancy (PMC) and the concerned PSU shall be treated as consultancy firm. Relevant methods (QCBS, LCS etc) for procurement of consultancy will be applicable. For better understanding of selection methodology of consultant(s), Rule 192 to Rule 194 of GFR 2017 and Manual for Procurement of Consultancy and Other Services, 2017 may be referred.

- ii. For original works and repair works entrusted under the provisions of Para above, the administrative approval will be issued as per latest delegated financial power issued by AVNL. The Public Works Organisation or the Public Sector Undertaking or any organisation allotted work shall then execute the work entrusted to it in accordance with the rules and procedures prescribed in that organisation.
- iii. A Memorandum of Understanding (MoU) may be drawn with the Public Works Organisation or the Public Sector Undertaking for proper execution of work. The MoU should spell out the obligations on the part of Public Works Organization or PSU regarding execution of works as per proper specifications and for maintaining proper quality and speed of execution of works. Different stages at which funds shall be released to the Public Works Organization should also be clearly spelt out. Such MoU would normally be for a specific standalone work, but could also be for a Project consisting of a collection of related works. In case of MoU with Public work Organisations (PWOs) it could also be as a long-term framework MoU. A Sample MOU delineating complete procedure of assignment of work to PWO/ PSUs and its monitoring is shown in Annexure 8 of DoE Works Manual. Procuring entity may change the MOU format suiting to their requirement, and if felt necessary may also get the MOU document vetted from the Ministry of Law/or its own legal cell.

Finalization of detailed scope of work, time frame and other requirements if any by Board of Officers of Factory and construction agency. **Rececum-siting-cum-costing board to be held.**

Approval of board proceeding & submission of detailed estimate to CFA.

(DoE Works Manual 2022 Cl. 3.1.4 Pg. No. 22)

10. Execution of works and services through Departmental contracts (for Capital/Revenue works)

10.1. Types of contracts

The following forms of contracts are authorized:

10.1.1. Measurement contracts:

It is categorized as under.

- a. Term contract based on latest MES SSR/CPWD DSR for minor work, revenue work and maintenance services.
- b. Percentage rate contract can be carried out when there is difficulty in estimating quantities and identifying the exact items of work until the work has commenced, e.g. day to day maintenance works, extensive roof and floor repairs, sewer line repairs, water line repairs, firefighting line repairs, renovation to dilapidated structures etc.
- c. Item rate contract in cases where large quantities of work involving small number of items have to be worked out, but exact quantities are not known.
- d. Award of Work through Quotations
 - i. Use of quotations **up to Rs Five lakh in each instance** shall be adopted for procurement of readily available goods/work that are not specially produced to the particular specifications and for which there is an established market.
 - ii. Procurement entity shall not divide its procurement into separate contracts to bring the amount less than the amount set forth for such purpose.
 - iii. Procurement entity shall request quotations from as many contractors as practicable but positively from at least three contractors. Each contractor from whom a quotation is requested, shall be informed whether any elements and other than the charges for the goods themselves, such as, transportation and insurance charges, duties and taxes are to be included in the price.
 - iv. Each contractor or contractor is permitted to give only one price quotation and is not permitted to change its quotation.
 - v. Award of work through quotations shall be resorted only in emergent cases and suitable reasons shall be recorded.
 - vi. The expenditure shall be booked under Code Head – 809
 - vii. Monthly report of executed work under this provision shall be informed to AVNL CO.

(DoE Works Manual 2022 Cl. 3.5.13 Pg. No. 49)

10.2. Requirement of work and Framing of specification

- 10.2.1. Scope of work shall be finalized by maintenance section. Where it is difficult to finalize the scope of work by maintenance section, a board of officers comprising representatives of DO/GO of user

& maintenance section may be constituted for deliberation and finalizing scope/specification of work if desired by CGM/GM/HOD.

- 10.2.2. Based on scope of work, drawing, detailed estimate shall be prepared by maintenance section on the basis of MES SSR with current MV/CPWD DSR with current Cost Indices.
- 10.2.3. Where rates are not available in MES SSR/CPWD DSR, Star rates shall be deduced as per MESR/CPWD procedure.

10.3. Processing of demand.

- 10.3.1. EO(Civil) shall scrutiny detailed estimate/drawing/ scope of work etc. within 07 working days and put up to CFA.
- 10.3.2. Demand will be forwarded to Associated Finance for concurrence.
- 10.3.3. Associated Finance shall concur the demand within a reasonable time. In case the concurrence is not received within 10 Days the case will be referred to HOD/Unit
- 10.3.4. After concurrence from Associated Finance, EO(Civil) shall put up Admin Approval and Technical Sanction.

10.4. Tendering procedure and E procurement/CPMP Bidding:

Open Tender Enquiry (OTE)

- 10.4.1. After Admin Approval, EO(Civil) office shall upload the tender in e-procurement website/CPMP portal without any delay.
- 10.4.2. General and Special Conditions of Contract including Safety Requirement shall be uploaded by the Factory in Tender. Any further condition required by Factory based on work is to be uploaded in Tender.
- 10.4.3. The bidding period shall normally be 14 days however, in case of urgency the bidding period can be reduced with due approval of CFA. In case of remote locations and the tender for which rates are not easily available, the bidding period can be extended accordingly with due approval of CFA.
- 10.4.4. Sufficient competition to be ensured while tender opening.
- 10.4.5. Single offer/Resultant single tender shall be re-tendered after analyzing the reasons in relevant CWC.
- 10.4.6. Bid validity period shall be 90 days.
- 10.4.7. Bid creator (BC):

Responsibility of bid creator is to create the bid on e-procurement

module and CPPP. BC shall be responsible for correctness of the bid.

10.4.8. Bid verifier (BV):

BV shall be responsible for verifying the EMD details, period of completion of work, tender opening date, security deposit and any other important condition of the tender etc.

BV shall be responsible for timely corrigendum/amendments and extension of Tender Opening Date (TOD).

10.4.9. Bid approver (BA):

BA will approve the bids after thorough scrutiny.

10.4.10. Bid-Opener (BO):

BO shall be responsible for opening of bids on scheduled dates & time mentioned in the tender.

10.4.11. The BC, BV, BA and BO will be nominated by CGM/ GM/ HOD. However, CGM/ GM/ HOD may authorize this work to any other Officer.

10.4.12. In case of CPPP bidding, the procedure as required by CPPP portal shall be followed.

10.4.13. The warranty period/defect liability period shall be generally twelve months from the date of completion of work. However special nature of work, it can be decided appropriately and mentioned in TE.

Single Tender Enquiry (STE) or Selection by Nomination

10.4.14. The selection by direct negotiation/nomination is called a single tender. This mode may be shortest but since it may provide lesser VfM (Value for Money) as compared to OTE and may also strain the transparency principle, it should be resorted to only under following conditions:

- a. There is an urgent need for the work and engaging in competitive tendering process would, therefore, be impractical, provided that the circumstances giving rise to the urgency were neither foreseeable by procuring entity nor the result of dilatory conduct on its part.
- b. Works that represent a natural continuation of previous work carried out by the firm when considering the limited size of the additional work in relation to the original procurement and the reasonableness of the price it will be cost effective to resort to single source procurement. However, the

incremental work should not be more than 25 (twenty-five) percent of the original contract value.

- c. In case of an emergency situation, situations arising after natural disasters, situations where timely completion of the work is of utmost importance subject to the reason for such decision being recorded and approval of the competent authority obtained.
- d. Situations where execution of the work may involve use of proprietary techniques or only one contractor has requisite expertise.
- e. The procurement entity engages in procurement involving national defence or national security and determines that single source procurement is the most appropriate method of procurement.
- f. Under some special circumstances, it may become necessary to select a particular Agency where adequate justification is available for such single-source selection in the context of the overall interest of the Ministry or Department.

Terms and Conditions

- a. The reasons for a STE and selection of a particular firm must be recorded and approved by the CFA as per the AVNL delegation of powers, prior to single tendering. Powers of procurement of STE are more restricted.
- b. The Procuring Entity shall ensure fairness and equity, and shall have a procedure in place to ensure that the prices are reasonable and consistent with market rates for work of a similar nature and the required work is not split into smaller sized procurements.
- c. All works/purchase/ consultancy contracts awarded on nomination basis should be brought to the notice of the Board of directors or equivalent managing body.

The report relating to such awards on nomination basis shall be submitted to the Board /equivalent managing body, every quarter.

CFA can be fixed as per DoFP P&M clause 6 c (i) and to be added with DoFP CI 50, 51, 52, 53 and 54. However, financial threshold can be as per DoFP CI 53 (C)

Limited Tender Enquiry (LTE)

10.4.15.

- i. LTE is a restricted competition procurement, where a preselected list of bidders (enlisted with the Procuring Entity along with those enlisted with other Public Works Organisations/ Works PSUs) is

directly approached for bidding bids from uninvited bidders are treated as unsolicited and are normally not entertained, except in special circumstances. This mode provides a short and simple procedure, but may not provide as good a VfM as in case of open tendering – still a good balance for procurements below a threshold. LTE procedures should be default mode of procurement when the estimated value of procurement is less than Rs. five lakh or when limited numbers of tenderers are known to possess requisite skills, technology and resources, by reason of their high complex or specialized nature, or for works of a secret nature.

ii. Terms and Conditions

- a. Copies of the bidding documents should be sent free of cost (except in case of priced specifications/ drawings) directly by speed post/ courier/ e-mail to firms which are enlisted bidders/ contractors. Further, Procuring Entity should also mandatorily publish its limited tender enquiries on Central Public Procurement Portal (CPPP). Apart from CPPP, the organisations should publish the tender enquiries on the Department's or Ministry's web site. The unsolicited bids, if any should not be accepted; however Ministries/ Departments should evolve a system by which interested firms can enlist and bid in next round of tendering. However, under the following exceptional circumstances, these may be considered for acceptance at the next higher level of competency:
1. Inadequate Competition
 2. Non-availability of suitable quotations from enlisted bidders
 3. Urgent demand and capacity/ capability of the firm offering the unsolicited being known, etc.
- b. A simplified Bid Document should be used, instead of a detailed Bid Document. The minimum number of bidders to whom LTE should be sent is more than three. In case less than three approved bidders/ contractors are available, LTE may be sent to the available approved bidders/ contractors with approval of the CA, duly recording the reasons. The requirement should then be marked for development of more sources by the Bidder enlistment section.

LTE Risks and Mitigations	
Risk	Mitigation
Major risk in this mode is that the demand may be artificially split to avoid OTE or higher level approvals	The e-procurement portal may be programmed to raise an alert if the same item is attempted to be procured through LTE repeatedly. Audit should take up a larger percentage of cases in LTE for review.

<p>There is a risk that LTE may not attract sufficient number of bids and sometimes there may be a single acceptable offer. This may be because of an insufficient database of enlisted/ known vendors. It could also be due to bid documents not reaching the targeted bidders – intentionally or otherwise. It could also be due to bidders not getting adequate time for submission of bids. On the other hand, unsolicited bidders may also quote – causing a transparency dilemma about consideration of such offers.</p>	<p>Maintenance of list of enlisted suppliers is a sine-qua-non for LTE. The List of enlisted vendors needs to be reviewed periodically to ensure adequate number of qualified suppliers. To ensure sufficient response, in addition to mails/ emails to selected vendors, web-based publicity should be given for limited tenders, with suitable clarifications that unsolicited bids shall not be considered. Further a limited or open tender which results in only one effective offer shall be treated as a single tender enquiry situation, with relevant powers of approval etc. Adequate time should be given for submission of quotes, which should not be less than three weeks. A longer period (six weeks) could be given in case of import of the materials and, in complex cases, if justifications are given and allowed.</p>
<p>There is also a risk that the selection of vendors may not be transparent. At the evaluation stage, some invited bidders may be passed over on grounds of being ineligible/ unreliable.</p>	<p>All major procuring departments must keep a list of enlisted bidders for use in restricted bidding. Suppliers or contractors should be selected in a non-discriminatory manner. All past successful vendors/bidders should invariably be invited. In case it is proposed to exclude any enlisted/approved vendor/ contractor from being shortlisted for inviting LTE, detailed reasons, such as failure in supply, should be duly recorded and approval of the CA be taken before exclusion. The selection of bidders should be with due diligence, to ensure that bidders who do not meet eligibility criteria do not get shortlisted. At the evaluation stage, in LTE, passing over of a duly shortlisted bidder on grounds of poor past performance or eligibility may raise questions about transparency.</p>

(DoE Works Manual 2022 Cl. 3.5.9 Pg. No. 45-47).

Award of Work through Quotations

- i. Use of quotations up to Rs Five lakh in each instance shall be adopted for procurement of readily available goods/ work that are not specially produced to the particular specifications and for which there is an established market.
- ii. Procurement entity shall not divide its procurement into separate

contracts to bring the amount less than the amount set forth for such purpose.

- iii. Procurement entity shall request quotations from as many contractors as practicable but positively from at least three contractors. Each contractor from whom a quotation is requested, shall be informed whether any elements and other than the charges for the goods themselves, such as, transportation and insurance charges, duties and taxes are to be included in the price.
- iv. Each contractor or contractor is permitted to give only one price quotation and is not permitted to change its quotation.
- v. Award of work through quotations shall be resorted only in emergent cases and suitable reasons shall be recorded.
- vi. The expenditure shall be booked under Code Head – 809
- vii. Monthly report of executed work under this provision shall be informed to AVNL CO.

10.4.16 Bid Security/ Earnest Money Deposit (EMD):

- a. EMD shall be as per following table.

S.No.	Estimated cost of the work	Earnest Money
1.	Up to Rs. 50 Lakhs	2% of the amount subject to a minimum of Rs. 5000/-.
2.	Over Rs. 50 Lakhs and Up to Rs. 100 lakhs	RS.1,00,000/- + 1.5% of amount exceeding Rs. 50 lakhs.
3.	Over Rs. 100 Lakhs and Up to Rs. 500 Lakhs	Rs. 1,75,000/- + 1% of the amount exceeding Rs. 100 lakhs.
4.	Over Rs. 500 Lakhs and Up to Rs. 1500 Lakhs.	Rs. 5,75,000/- + 0.50% of amount exceeding Rs. 500 lakhs.
5.	Over Rs. 1500 lakhs	Rs. 10,75,000/- + 0.50% of amount exceeding Rs. 1500 lakhs subject to maximum of Rs. 15,00,000/-.

- b. EMD shall be deposited in the form of Demand draft, Bankers cheque, fixed deposit receipt and Bank Guarantee (including **e-Bank Guarantee**) in the name of Sr. GM / GM / HoD or online payment in an acceptable form in the name of Sr.GM / GM / HoD
(DoE Lt. No. 1/4/2022 – ppd Dtd: 05/08/2022)
- c. The validity of bank guarantee shall be six months from bid submission date.
- d. To safe guard against a bidder's with drawing or altering its

bid during the bid validity period in the case of OTE and GTE tenders, bid security [also known as Earnest Money Deposit (EMD)] is to be obtained from the bidders along with their bids. Any bid not accompanied by the requisite bid security shall be rejected as non-responsive in accordance with provisions of the bidding document. The amount of bid security should generally be between two to five percent of the estimated value of the goods to be procured. The amount of bid security, rounded off to the nearest thousands of Rupees, as determined by the Procuring Entity, is to be indicated in the bidding documents.

The Bid Security may be obtained in the form of Insurance Surety Bonds, account payee demand draft, fixed deposit receipt, banker's cheque or Bank Guarantee from any of the Commercial Banks or payment online in an acceptable form, safeguarding the purchaser's interest in all respects. The bid security is normally to remain valid for a period of 45 (forty five) days beyond the final bid validity period.

In appropriate cases, in place of a Bid security, Procuring Entities may consider asking Bidders to sign a Bid securing declaration accepting that if they withdraw or modify their Bids during the period of validity, or if they are awarded the contract and they fail to sign the contract, or to submit a performance security before the deadline defined in the request for bids/request for proposals document, they will be suspended for the period of time specified in the request for bids/request for proposals document from being eligible to submit Bids/ Proposals for contracts with the procuring entity.

In appropriate cases, Submission of the bid security may be waived with the Competent Authority's (CA's) approval in the case of indigenisation/development tenders, limited tenders and Single Tender.

Bid securities of the unsuccessful bidders should be returned at the earliest after expiry of the final bid validity period and latest by the 30th day after the award of the contract. Bid security should be refunded to the successful bidder on receipt of a performance security. However, in case of two packet or two stage bidding, Bid securities of unsuccessful bidders during first stage i.e. technical evaluation etc. should be returned within 30 days of declaration of result of first stage i.e. technical evaluation etc.

A bidder's bid security will be forfeited if the bidder

- i. Withdraws or amends its/his tender.

- ii. Impairs or derogates from the tender in any respect within the period of validity of the tender.
- iii. If the bidder does not accept the correction of his bid price during evaluation.
- iv. If the successful bidder fails to sign the contract or furnish the required performance security within the specified period.

(DoE Works Manual 2022 Cl. 4.11 Pg. No. 65)

- e. The EMD of successful bidder shall be returned only after receipt of security deposit/Performance guarantee.

10.4.17. Performance Guarantee:

- a. Performance Bank Guarantee (PBG) is to be obtained from the successful bidder awarded the contract. Performance security should be for an amount of five percent of Value of the Contract.
- b. The PBG shall be deposited in the form of Demand draft, Bankers cheque, fixed deposit receipt and Bank Guarantee (including **e-Bank Guarantee**) in the name of CGM/GM/HOD or **online payment** in an acceptable form within 30 days after award of contract.

(DoE Works Manual 2022 Cl. 4.12 Pg. No. 65)

- c. The validity of bank guarantee shall be such that it covers the warranty period plus two months.
- d. PBG shall be returned after successful completion of warranty period/defect liability period and furnishing no demand certificate by contractor.
- e. The factories/units where registration of contractors is valid, Relevant Civil Works Committee (CWC) may take a considered decision about EMD and SD.

10.5. Evaluation of tender:

- 10.5.1. The tenders will be evaluated/accepted by the Factory CWC as per the delegation of financial powers.
- 10.5.2. Technical Evaluation of tenders: After opening of tender, CWC brief shall be prepared by Engineering office and put up to CWC for technical evaluation of tender as per TE conditions. (Appendix 'H').
- 10.5.3. After evaluation and recommendation of CWC, price bid of the technically acceptable offer will be opened immediately.

If there is any freak rate*, the items having higher freak rates shall not be executed more than 25% of the estimated quantity.

The items having lower freak rates shall not be executed less than 25% of the estimated quantity.

Where it is found inescapably necessary to increase quantities beyond 25% of the estimated quantities as included in the contract, for items for which rates considered freakishly high or to decrease the quantities beyond 25% of the estimated quantities as included in the contract for items for which rates are freakishly low, such deviations shall have the prior approval of the CFA.

(MES contract manual 2020 Pg No. 118)

* Freak Rate: Rates which are higher/lower than 50% of the estimated cost of the item.

10.5.4. EO shall ascertain the reasonability of rate and put the case to CWC. (Appendix 'I')

For any matter related to tendering and contract, if not mentioned in SOP then **Manual on Procurement of Works issued by DoE/MES Contract Manual/CPWD Contract Manual** to be referred for issues not mentioned in this SOP in order of priority and followed by AVNL & its Contractors.

10.5.5. Documents Required for Technical Evaluation:

- Annual Turnover Certificate for last 03 Financial years. (Certified by CA)
- Work Completion certificate of Central Government/PSUs/State Government or other government agencies and experience certificate of Private Limited companies.
- PAN and GST Certificate.
- Earnest Money Deposit.

10.5.6. Bidder should have valid registration with Employees Provident Fund organization under 'EPF and Miscellaneous Provisions Act, 1952'.

(DoE Works Manual 2022 Cl. 4.5.1 (ii) Pg. No. 56).

10.5.7. The applicant/ bidder should have:

1. successfully completed or substantially completed similar works during last seven years ending last day of month previous to the one in which applications are invited should be either of the following: -
 - 1.1. Three similar completed works costing not less than the amount equal to 40 (forty) percent of the estimated cost

or

- 1.2. Two similar completed works costing not less than the amount equal to 50 (fifty) percent of the estimated cost

or
 - 1.3. One similar completed work costing not less than the amount equal to 80 (eighty) percent of the estimated cost
2. Definition of "similar work" should be clearly defined.
 - 2.1. The pre-qualification criteria specified in the tender document should neither be made very stringent nor very lax to restrict/facilitate the entry of bidders. It is clarified that the guidelines issued are illustrative and the organisations may suitably modify these guidelines for specialised jobs/works, if considered necessary. However, it should be ensured that the PQ criteria are exhaustive, yet specific and there is fair competition. It should also be ensured that the PQ criteria are clearly stipulated in unambiguous terms in the bid documents.
 3. The applicant should also have achieved the minimum annual production value of the key construction activities (e.g. dredging, piling, or earthworks etc) stipulated.

The similarity of work shall be pre-defined based on the physical size, complexity, methods/technology and/or other characteristics described, and scope of works. Substantial completion shall be based on 80 (eighty) percent (value wise) or more works completed under the contract (Note: Substantial completion should not be defined in terms of percentage completion, rather it should be based on functional consideration. For contracts under which the applicant participated as a joint venture member or sub-contractor, only the applicant's share, by value, shall be considered to meet this requirement. For arriving at cost of similar work, the value of work executed shall be brought to current costing level by enhancing the actual value of work at **simple rate of seven percent per annum**, calculated from the date of completion to the date of Bid opening.

Certificate for 'substantial completion' of project/work/asset should contain two parts. Part -I shall contain 'financial value of work done' and part-II shall contain 'certificate of functional completion of project/work/asset'.

(DoE Works Manual 2022 Cl. 3.3.6(b)(3) Pg. No. 34).

10.5.8. A firm that has been engaged by AVNL Units to provide consultancy services for the preparation or implementation of a project, and any of its affiliates (associates, subsidiary, JV partner), shall not be eligible for subsequently providing goods or works (other than a continuation of the firm's earlier consultancy services) for the same project.

(DoE Works Manual 2022 Cl. 4.5.1 (iv) Pg. No. 56).

10.6. Execution of contract:

10.6.1. Based on acceptance of suitable offer by CWC, a letter for acceptance of work will be issued to contractor by EO.

10.6.2. Site-In-charge (SIC), Engineer-In-charge (EIC) and Technical Examiner (TE) shall be nominated by CGM/GM/HOD on case to case basis.

10.6.3. In case of term contract requisition should be raised by maintenance section duly approved by CGM/GM/HOD or his authorized representative. EO will issue individual Work Order. The individual requisition/ Work Order need not be vetted by Associated Finance as the Term Contract has been concluded duly cleared by CWC.

10.6.4. The individual WO shall not exceed Rs.3,00,000/- subject to following reservations viz.:

S.No.	Nature of Work	Individual WO limit (Rs)
1.	Periodical Services	50,000
2.	Road and Path	1,20,000
3.	Electrical and water supply works	1,20,000

* This limit will change as per amendments issued by AVNL.

10.6.5. Term contract for electrical maintenance works can be concluded separately. However, the individual work order shall not exceed Rs.1,50,000 each.

10.7. Contract Management:

10.7.1. Site-In-Charge (SIC):

- a. SIC shall supervise the execution of work as per scope of work and maintain the daily progress of work in work diary.
- b. As per progress of work SIC shall take measurement of work done in association with contractor and make entry into measurement book/ e- Measurement book (e-MB).

- c. SIC shall be JWM/CM or Equivalent of preferably same background pertaining to work requirement.

10.7.2. Engineer-In-Charge (EIC):

- a. EIC shall ensure quality of input material used in the work as per specification and random check of quantity of work done as mentioned in MB.
- b. EIC shall be the JWM (SG)/ AWM/ WM/ DGM/ JT GM or Equivalent preferably same background as far as possible.

10.7.3. Technical Examiner (TE):

- a. TE shall finally approve that work was technically executed as per scope of work.
- b. TE shall check a portion of measurement and put tick (√) mark on measurement and endorse his signature.
- c. TE shall be the AWM/ WM/ DGM/ JTGM or Equivalent (should be senior to EIC).

10.7.4. Work diaries (WD):

WD will be maintained for all works. (Appendix 'J')

10.7.5. Measurement Book (MB)/e-Measurement book (e-MB):

- a. MB/ e-MB is the book for all accounts of the measured work mentioning particular places and all materials received, which are to be measured and accounted. (Appendix 'K').
- b. All the measurement will be recorded in the measurement book/ e-Measurement book (e-MB)

10.8. Deviation:

- 10.8.1. Every work will be planned and designed in detail before ordering to commence the work, so that the deviation order during the progress of the work may be avoided as far as possible
- 10.8.2. The deviations, ordered on items of any individual trade (individual trade means the trade sections into which a Bill of Quantities or Schedule 'A' has been divided or in the absence of any such division, the individual sections of MES SSR/CPWD DSR such as Excavation & earthwork, Concrete, Wood work and Joinery etc.) included in the contract shall not exceed **plus/minus 50%** of the value of that trade in the contract as a whole. However, total executed value shall not be more than 10% of the contract value and it has to be ensured that L1 status remains L1. If the final execution cost exceeding beyond 10% of the contract value, Clause no 10.8.9 and 10.8.10 shall be followed.

- 10.8.3. The deviations may be ordered for various types of contract and are not to exceed the following percentage:

Any other type of contracts		
1.	Contract estimated to cost less than Rs. 10 lakhs	10%
2.	Contract estimated to cost Rs. 10 lakhs and above	10%

- 10.8.4. If Deviation is within above mentioned limit based on Technical Requirement, it shall be approved by CFA on recommendations of SIC, EIC & TE. No financial concurrence is required.
- 10.8.5. CFA in consultation with Associated Finance can accept star rate of item of work to be executed under existing contract for item which is not available in the contract, provided the rates for the item is not deducible pro rata from the contract rate. The star rate so as to be fixed will be the cost of material & labour (Cost of work at site) with 10 % mark up for contractor's profit & overhead.
- 10.8.6. The Engineering officer must ensure that the status of L-1 does not change with amendment of contract or by ordering deviations.
- 10.8.7. No change in site is permissible however in exceptional circumstances it may be permissible with the approval of Director/ Operations/AVNL with proper justification.
- 10.8.8. If any item omitted during the placement of supply order which compulsorily required for execution of works, then the same item/ items shall be included in the existing contract following the MES Manual procedure mentioned. Such newly added item/ items total value should not be more than 2% of Contract value. For all the cases comes under this clause shall invariably obtain the approval of the CFA of the concerned case.
- 10.8.9. In case of Final executed value exceeding more than 10% of contract value and up to 15% of the Contract value, next Higher CWC approval is required. In case of Final executed value exceeding more than 15% of contract value and up to 20% of the Contract value, approval of Director/ Operation AVNL Co is required.
- 10.8.10. If the final executed cost of any Works or Services exceeds the amount of Administrative Approval (AA) by more than 10%, prior sanction of CFA in form of Financial Concurrence (FC) is to be obtained and revised AA to be issued.

10.9. Payments:

- 10.9.1. The Running Account receipt payment (Appendix 'L') and Final payment (Appendix 'M') shall be processed after submission of the bill by contractor.
- 10.9.2. The bills shall be scrutinized by SIC to ensure that bill amount is matching with quantum of the work done.
- 10.9.3. For any payment i.e. RA payment/Final payment, as well as term contract payment shall be made only on measurement of work done and material at site.
- 10.9.4. The Contractor shall be entitled to be paid during the progress of the Works 85 percent of the value of any materials which are in the opinion of the Engineer-in-Charge is in accordance with the Contract and which have reasonably been brought on the Site in connection therewith and are adequately stored and/or protected against damage by weather or other causes, but which have not at the time of the advance been incorporated in the Works.
- 10.9.5. The rate for material at site shall be taken as 85% contractor's invoice rate or 85% of rate after deducting 25% for labour component from that item's rate in work order, whichever is lower.
- 10.9.6. The bill shall be signed by SIC, EIC, TE and submitted to EO along with deviation statement for final bill and without deviation statement for RAR bills.
- 10.9.7. EO will examine the deviation statement (for final bill only) and put up a note sheet along with deviation statement to CFA for approval of deviation and forward the bill along with sanctioned deviation statement to Associated Finance for checking and payment.
- 10.9.8. Timely payment of RA bills and TC bills:
 - a. After submission of bill complete in all respect by the contractor, Maximum time period of 08 working days for factory and 10 working days for Associated Finance after receipt of the bill by Associated Finance.
 - b. For processing of payment of Final bills- Final bill to be processed on priority by EO civil and Associated Finance.
- 10.9.9. Retention Money

In addition to Performance Security (usually five percent), Contracts for works usually provide for a percentage (usually five percent) of each running bill (periodic/ interim payment) to be withheld as Security Deposit/ retention money until final acceptance.

(DoE Works Manual 2022 Cl. 4.13 Pg. No. 66)



10.10. Extension of completion period and Compensation for delay:

- 10.10.1. In case the work is delayed beyond the completion period delay analysis is to be done thoroughly by EIC based on the reason of delay cited by the contractor.
- 10.10.2. Extension of completion period without compensation for delay shall be decided in relevant CWC and with compensation for delay shall be decided by relevant CFA without financial consultation.
- 10.10.3. In case of delay in completion of the contract, liquidated damages (for repair works costing up to Rs. Ten lakh - one percent of the contract value per week and for all other works half percent of the contract value per week of delay subject to a maximum of ten percent of contract value) should be levied.

In case of Term contracts and Percentage rate contracts, LD shall be levied on individual work orders value based on completion period of respective work order.

(DoE Works Manual 2022 Cl. 6.4.4 Pg. No. 92 & 93)

10.11. Cancellation of Contract in part or in full for contractor's default:

If the Contractor:

Makes default in commencing the Works within a reasonable time from the date of the handing over the site, and continues in that state after a reasonable notice from factory

Or

In the opinion of the CFA at any time, whether before or after the date or extended date for completion, makes default in proceeding with the Works, with due diligence and continues in that state after a reasonable notice from factory.

Or

Fails to comply with any of the terms and conditions of the Contract, or after reasonable notice in writing with orders properly issued there under.

Or

Fails to complete the Works, Work order and items of Works, with individual dates for completion and clear the Site on or before the date of completion.

The CFA may, without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to AVNL units, cancel the Contract as a whole or only such Work Order(s) or items of Work in default from the Contract.

Whenever the CFA exercises his authority to cancel the Contract as a whole or in part under this Condition he may complete the Work by any

means at Contractors risk and cost, provided always that in the event of cost of completion or after alternative arrangements have been finalized by the AVNL units to get the Works completed, estimated cost of completion (as certified by SIC and EIC) being less than the Contract cost, the advantage shall accrue to the AVNL units.

If the cost of completion or after alternative arrangements have been finalized by the AVNL units to get the Works, completed, estimated cost of completion (as certified by SIC and EIC) exceeds the amount due to Contractor under this Contract, the Contractor shall either pay the excess amount ordered by CFA or the same shall be recovered from the Contractor by other means.

The AVNL units shall also be at liberty to hold and retain in their hands materials, tackle, machinery and stores of all kinds on Site, as they may think proper and may at any time sell any of the said materials, tackle, machinery and stores and apply the proceeds of sale in or towards the satisfaction of any loss which may arise from the cancellation of the Contract as aforesaid.

The AVNL units shall also be at liberty to use the materials, tackle, machinery and other stores on Site of the Contractor as they think proper in completing the work and the Contractor will be allowed the necessary credit. The value of the materials and stores and the amount of credit to be allowed for tackle and machinery belonging to the Contractor and used by the AVNL units in completing the work shall be assessed by the SIC and EIC and the amount so assessed shall be final and binding.

In case the AVNL units completes or decides to complete the Works or any part thereof under the provision of this Condition, the cost of such completion to be taken into account in determining the excess cost to be charged to the Contractor under this Condition shall consist of the cost or estimated cost (as certified by SIC and EIC) of materials purchased or required to be purchased and/or the labour provided or required to be provided by the AVNL units as also the cost of the Contractors materials used with an addition of such percentage to cover superintendence and establishment charges as may be decided by the CFA, whose decision shall be final and binding.

10.12. Settlement of disputes:

Introduction: Arbitration is a procedure wherein a dispute is submitted by an agreement between parties, to one or more arbitrators who make a binding decision on the dispute. In choosing arbitration, parties opt for a private settlement procedure instead of going to court directly. It is governed by the Arbitration and Conciliation Act, 1996.

All disputes and difference arising out of or in any way touching or concerning the contract shall be referred to the Sole Arbitrator appointed by CMD AVNL at location of work and there should not be any objection to any such appointment that the Arbitrator so appointed is a Govt. Servant.

Procedure of Ad-Hoc Arbitration: in case the parties want to invoke an ad-hoc arbitration clause, the following procedure can be mutually agreed upon between parties.

10.12.1. For appointment of Sole Arbitrator:

“In case a dispute arises between parties in connection with the agreement and all/any terms and conditions hereof, the matter should be resolved through mutual discussion and negotiation.”

However, if the parties are not able to resolve their dispute through mutual discussion and negotiation, such dispute should be resolved through arbitration by a sole arbitrator. The provisions of the Arbitration and Conciliation Act, 1996 shall apply to such dispute. The Place of arbitration shall be _____. The language of arbitration shall be English.

10.12.2. For appointment of three arbitrator:

“In case a dispute arises between parties in connection with the agreement and all/any terms and conditions hereof, the matter should be resolved through mutual discussion and negotiation.”

However, if the parties are not able to resolve their dispute through mutual discussion and negotiation, such dispute should be resolved through arbitration by a panel of three arbitrator. Each party shall appoint one arbitrator and the two appointed arbitrators shall in turn appoint a presiding arbitrator. The provisions of the Arbitration and Conciliation Act, 1996 shall apply to such dispute. The Place of arbitration shall be _____. The language of arbitration shall be English.

10.12.3. Institutional Arbitration:

In the event it is desirous of invoking an institutional arbitration clause, the following procedure can be followed:

“In case a dispute arises between parties in connection with the agreement and all/any terms and conditions hereof, the matter should be resolved through mutual discussion and negotiation.”

However, if the parties are not able to resolve their dispute through mutual discussion and negotiation, such dispute can be resolved amicably through arbitration. The provisions of the Arbitration and Conciliation Act, 1996 shall apply to such dispute.

- i. The appointing authority will be _____.
[Name of institution/arbitrator]
- ii. The Place of arbitration shall be _____.
- iii. The language agreed upon parties will be _____.

The award passed by the arbitral tribunal will be final and binding upon parties.

10.12.4. Dispute between PSUs:

Settlement of dispute between Public Sector enterprises and/or Government department will be as per Government guidelines issued from time to time.

11. Demolition of Buildings:

11.1. When only demolition is to be carried out.

- 11.1.1. Technical examination Board will be constituted by CGM/GM/HOD for condemnation or otherwise of proposed buildings.
- 11.1.2. CGM/GM/HOD may engage service provider to examine the condition of building and recommend whether the building is beyond economical repair or otherwise.
- 11.1.3. Demolition of any building may be approved on a demolition statement (Appendix 'N'), as per delegated financial power.
- 11.1.4. In order to determine the level of competent sanctioning authority, book value of each building (including ancillary buildings) will be taken separately and not the total book value of all the buildings in a demolition statement.
- 11.1.5. MSTC would be approached for demolition and disposal of buildings.
- 11.1.6. Reserve price would be fixed by Board of Officers as appointed by CGM/GM/HOD.
- 11.1.7. After competitive bidding and offers received through MSTC, a TDC shall finalize the highest bidder for Disposal.

11.2. When demolition along with construction is to be done, the cost of demolition is also to be catered in construction cost.

NOTE:

- i. AVNL shall depute Officers from different factory for Internal Audit of works & works procedure followed by factories. (Appendix 'O')*
- ii. This Standard Operating Procedure (SOP) will be effective from the date of issuance of this covering letter. This SOP may also be preferable reviewed after three years. Validity of the SOP shall either be three years or till issue of new SOP, whichever is later.*
- iii. Any change/amendment/clarification related to this SOP, may be issued by AVNL.*



Appendix: A**Swachh Bharat**

Works which are included in Swachh Bharat is given below.

1. Abolishment of Open Toilet system:
 - a. Practice of open toilet systems to be stopped particularly for occupants of servant quarters.
 - b. Adequate toilet facilities are to be provided in estates for servant Qtrs.
 - c. Toilet facility is to be provided for Contract labours.
 - d. Separate Toilet facility is to be provided for boys & girls in the AVNL Units Schools, if the same has not been provided so far.
 - e. Proper hygiene and upkeep to be maintained.
2. Sewer line & Sewage treatment Plant:
 - a. Septic Tank & Soak Pit system for individual buildings are to be discontinued & laying of Sewage line to be carried out.
 - b. In places where sewer line is in dilapidated condition and requires maintenance /repair, immediate time bound action is to be taken up.
 - c. Comprehensive sewage system and separate Sewage treatment plant to be installed for factory & estate, wherever not existing.
3. Effluent Treatment Plant: to be provided in factory, wherever not existing. (In case cost of P&M is significant, proposal may be processed under P&M).
4. Solid Waste Treatment Plant: to be provided in estates as well as inside factory, wherever not existing (In case cost of P&M is significant, proposal may be processed under P&M).
5. All open drains are to be covered in estates as well as inside factory with adequate provisions for periodical cleaning.
6. Other guidelines laid down by Government of India shall be followed in time bound manner.

Appendix: B**Green Building Concept**

Green Building guidelines are framed to address issues like consumption of water and energy efficiently, handling of waste and conserving natural resources and ambient environment quality. This would enable AVNL to contribute in national goal of reducing greenhouse gas emission.

In this regard, following guidelines for Green Building are to be adopted wherever feasible:

1. Adopt integrated design approach by involving members from multi-discipline like architect, civil engineer, energy auditor etc. to construct a high performance building, thereby reducing negative environmental impacts.
2. At the time of construction of new building, ensure that there is minimum disturbance to land/site topography - retain at least 10% of the existing topography / landscape and 100% of water bodies and channels at the site. Plan construction of building such that there is minimum cutting of trees. Explore transplantation of trees and if that is not possible then plant new trees in lieu of trees cut.
3. Architectural design features to minimize energy consumption:
 - a. The building shall be oriented with the long sides facing north and south whenever the site and location permit such orientation. This would minimize the solar exposure on vertical surfaces.
 - b. Balconies and open terraces should be built on the south side of the house, where direct sunlight will permit their use for more hours during the day and more days during the year.
 - c. Provide 10%-15% window-to-wall ratio (WWR) in bedrooms and, 30 % WWR in living room to ensure adequate day lighting. The daylight on the lower floors can be improved by increasing the window area, using light colour with smooth finishes on the wall opposite to the window and using light colour interiors.
 - d. Provide high reflective surface on roof to minimize heat gain through roof.
4. Provide access to basic amenities (like ATM/ Bank/ Market/ Hospital /School etc.), so as to reduce negative impacts caused from automobile use.

5. Minimize hard area and increase green cover. In case of constraint of space vertical gardening should be done, especially in administrative building. To minimize heat island effect in covered roof area provides materials with high solar reflective index and vegetation to cover at least 75% of the exposed roof area including covered parking.
6. Design the building / campus to provide the following, for differently-abled and senior citizens in accordance with the guidelines of the National Building Code (NBC) of India 2005:
 - a. Easy access to the main entrance of the building.
 - b. Non-slippery ramps, with handrails on at least one side (as applicable).
 - c. Braille and audio assistance in lifts for visually impaired people.
 - d. Seating area near lift lobbies.
 - e. Restrooms (toilets) in common areas designed for differently abled people.
7. Design rainwater harvesting system to the extent of 50% of the rainfall.
8. Treat waste water generated on-site, so as to avoid polluting the receiving streams by safe disposal. Use treated waste water, thereby reducing dependence on potable water.
 - a. Have an on-site treatment system to handle 100% of waste water generated in the building, to the quality standards suitable for reuse, as prescribed by Central (or) State Pollution Control Board, as applicable.
 - b. Use treated waste water for at least 25% of the total water required for landscaping, flushing, and cooling tower make-up water (if the project uses water-cooled chillers).
9. Use low flow water supply fixtures and low flow/ waterless flushing fixtures/urinals in offices and factories, thereby minimizing potable water use. Dual pipe line system to be incorporated.
10. Encourage reuse or recycling of materials, without compromising structural strength. Few examples are: -
 - a. Fly ash bricks/blocks from recycled materials can be used in masonry work for non-structural members in place of burnt clay bricks.

- b. Use local material/items (Available within 100 kms) to the extent of minimum 50% or more of the cost of construction.
 - c. Use recycled materials in flooring and false ceiling.
 - d. Use recycled materials in landscape/art works.
 - e. 100 % reuse of excavated soil at site.
11. Use alternate materials of natural timber in full wood work.
 12. Use low VOC primer and paint (less than 50 grams/litre).
 13. Follow hazardous waste management Rules/policy during construction and operation to ensure safe handling, storage, transportation, collection, destruction and disposal of Hazardous Waste (Batteries, e-waste, Medical waste etc.).
 14. During construction adopt air pollution control measures like washing tyres of material carrying vehicles, sprinkling of water and other measures to reduce air pollution.
 15. Adopt green construction technologies for building/roadwork, flooring, plastering, tile work, laying utility services (trenchless technologies) or other construction works.
 16. Use LED lights in factories and estate Air-conditioners, fans, pumps & motors installed in the building shall have an efficiency equivalent to BEE 3-star rating or more.
 17. Provide energy efficient lifts, pumps and DG sets.
 18. Wherever possible, provide sensors for lighting fixtures.
 19. Maximize the solar power or other non-conventional power generation at Factory level to meet the significant demand of electricity required at Factory.
 20. Prepare waste management plan at factory level conforming to local Solid Waste Management (SWM) Rules/Policy.
 21. There should be segregation facilities for construction and demolition waste, wet waste and dry waste and explore feasibility of compost pit.
 22. Other guidelines laid down by Government of India shall be followed in time bound manner.

Appendix: C

Rain Water Harvesting

1. For new buildings/ establishments:

AVNL Units shall ensure the provision of rain water harvesting including the scope and amount of consultancy required for this purpose while forwarding their proposals for construction of new buildings/ establishments.

2. For Existing/ Old buildings:

AVNL Units shall ensure the provision of rain water harvesting in existing buildings wherever feasible.

3. Natural topography of factory and estate shall be utilized as far as possible for rain water harvesting system.
4. Bore well proposals to be invariably incorporated with rain water harvesting system.
5. Other guidelines laid down by Government of India shall be followed in time bound manner.
6. Other water conservation practices to be adopted.

Appendix: D**Rough Indication of Cost (RIC)**

Station:

Name of Project:

Sl.No.	Item of Work	Basis of Calculation	Cost (`)	Remarks
(a)	(b)	(c)	(d)	(e)
1.	(a) Cost of land (b) Surveys and Soil Investigation (c) Site clearance and development including demolition			Basis will be Plinth Area Rate(#) plus effect of inflation variation & restricted area allowance, if any
2.	(a) Building (including internal services like water and electric supply etc.) (b) Air-conditioning & Refrigeration			
3.	Special items including cost of installation of equipment, plants, if any.			
4.	External Services (rough cost of roads, water and electrical supply, sewage disposal and area drainage)	@ 25% of item 2(a)		
5.	Arboriculture, if any			
6.	Consultancy, if any			
7.	Contingencies (3% on items 1 to 6)**			
8.	Add for works involving other agencies***			
9.	Total			

(#) For departmental contract & MES works, Plinth Area Rate (PAR) issued by MES would be used. For other PWOs PAR followed by them would be used.

* As defined in 3.1.2 only

** For PWOs as per their procedure

*** Financial repercussion for cutting of tree, if any, and/or statutory charges to any designated agency, if any, may be added.

Estimate Approved

Estimate Checked

Estimate Prepared

Appendix: E**DOCUMENTS WHICH ARE TO BE OBTAINED FROM EXECUTION AGENCY FOR WORKS EXECUTED BY OTHER GOVT. AGENCIES**

1. At the time of handing over the works and services, the executing authority will hand over the following documents.
 - a. Inventory of internal electrical fittings of buildings.
 - b. Inventory of internal water supply/ sanitary fittings of buildings.
 - c. Inventory of other B/R fittings such as Iron/ Sanitary fittings of buildings.
 - d. Inventory of wall fixtures, etc. of buildings.

2. The following documents are to be handed over by the Engineers of the Executing Agency to the Factory Authorities within Three month from the date of handing/ taking over.
 - a. Completed drawings and register of newly constructed building/ buildings.
 - b. Diagrams of internal electrification and its distribution.
 - c. Diagrams of internal water supply and sewage disposal.
 - d. Completed water supply plan pertaining to the works showing the position of the pipe lines, control valves, location of the pump house, capacity of the reservoir etc. Rising mains and delivery mains should be clearly shown in the same drawing.
 - e. Completed Electrical distribution plan – showing the size and number of conductors and feeders and distribution of connected loads to the various buildings. The route of overhead/ underground mains are to be clearly shown in the same drawing.
 - f. Completed layout of sewage disposal showing positions of Septic Tanks, distribution of pipe lines (various sizes) and manholes etc.
 - g. Completed layout of fencing showing the position of boundary pillars and gates.
 - h. Road chart relating to the works indicating clearly culverts, bridges etc.
 - i. A drawing showing the location of earth pits of the power supply system, Sub – Stations (S/S) and power earth, L.P. system Static earthing system (if any) with their inter connection.
 - j. A set of schematic diagrams of external electrification system including the different S/S arrangements showing location of the switch gears and equipment, feeders cables etc. and their sizes.

- k. PSMB/RPMB duly audited by the U.A. of concerned Engineering authority.
 - l. Stability certificate in respect of buildings/ structures.
3. The following test results/ certificates should also be furnished by the executing agency at the time of handing over the building/ installations:
- a. IR test results of each bldg. taken in accordance with the IS code of practice and relevant I.S. / I.E. Rules.
 - b. Earth test results of each earth electrode (power, L.P. Static earthing system) of the building overhead lines taken independently without inter linking connection in accordance with IE rules.
 - c. 'Manufacturers' test certificates of all power supply machineries, cables etc. and results of any tests carried out by the constructing agency before final commissioning.
 - d. Test results of relays after calibration before commissioning.
 - e. Certificates from CMRI Dhanbad in respect of special type of fittings, FLP/TE/DP/DT used in chemical/ explosives process buildings/ Stores/Magazines etc.
 - f. A certificate from the executing agency that all electrical works have been done in accordance with the IE Rules, Relevant IS Code of Practice and regulations of STEC (CEES) is to be obtained.

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Appendix: F

Emergency Works
(Emergency Works to be carried out as per Para 34 to 37 of DWP 2007
(amended)

34. Urgent reasons must be made very explicit and CFAs must be held responsible for their decision. If for urgent reasons delay involved in the issue of administrative approval based on approximate estimates cannot be accepted, the Competent Financial Authority is empowered to order commencement of work on essential items of required work prior to the issue of administrative approval. In doing so, however, the CFA should ensure that no accommodation or facility is constructed in excess of requirements. The "Go-Ahead" sanctions accorded under this para by CFAs will be subject to the following conditions:

- a. The "Go-Ahead" sanction will be ordinarily restricted to items like collection of stores, site clearance, and external services. Work related to piling and reclamation may be also covered by the "Go-Ahead" sanction, provided it is duly supported by an approximate estimate for such piling and reclamation.
- b. The "Go-Ahead" sanction will not exceed 20% of the rough cost estimate for the entire project made by the Engineer authorities. The percentage will not include the cost of acquisition of land required for the project.

35. (a) Further, notwithstanding the procedures laid down, unexpected circumstances may arise which make it imperative to short-circuit normal procedure. Such circumstances may arise from unforeseen operational necessity or urgent medical grounds or out. of natural disasters when reference to the appropriate CFA would entail dangerous delay. In such circumstances, HOD of unit may order the commencement of required work by furnishing an order in writing to the engineer officer concerned. The following principles will guide the HOD of Unit in taking such an action: -

- i. Can the appropriate CFA be referred to and his approval received without causing dangerous delay in commencement of work?
- ii. The facts of the case satisfy the Commander that, if the appropriate CFA could be referred to in time, the latter would have given the same order for commencement of works under the prevalent circumstances.
- iii. The HOD of Unit is satisfied that he will be held responsible for any failure or disaster that may ensure, if he neglects to order commencement of necessary works.

(b) Should the concerned HOD of unit decide that it is necessary to order commencement of necessary works in departure from the procedures laid down, he will report the fact in writing to the appropriate CFA, if applicable, at the earliest possible moment within a week with copies to the associated Finance concerned and also inform CMD / AVNL at the same time.

36. (a) In the case of imminent danger to buildings, roads etc., or of a breakdown of supply from an E/M or water supply installation, when delay would be seriously detrimental to the public service, HOD of Unit will take steps to protect Government property or the inhabitants etc. But he/she must at once report the facts of the case and the reasons for his/her action to CMD / AVNL and to associated Finance indicating the financial liability he/she is incurring.

(b) Skilled / semi-skilled / unskilled manpower may be employed on daily rates of pay (as per Para 35 (c) above) by the HOD of Unit not exceeding **15 days overall in terms of time and 1000 man days in effort.**

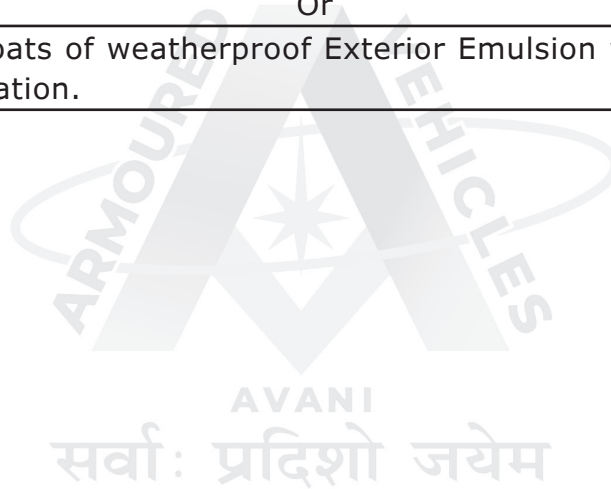
37. The procedures outlined in Paras 34 to 36 above do not dispense with the necessity for the issue of Administrative Approval by the CFA based on subsequently prepared Approximate Estimate at the earliest opportunity not **exceeding six months** after commencement of works. Further such works can be started without waiting for specific allotment of funds for the project subject to the condition that necessary allotment of funds for the purpose would be obtained at the earliest opportunity.

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Appendix: G**Normal Periodical Services**

Internal and External Lime Washing (white or tinted)	
Half-yearly	Half-yearly Pantries, cookhouse and other buildings or rooms where food is dealt with, bakeries, grain stores, foul-linen stores, mortuaries, latrines and urinals.
Yearly	All other buildings except store houses in general but including Medical and QM stores of hospitals.
Every two years	Store house excluding Medical and QM store of hospitals.
Internal Distempering	
Yearly	One coat of oil bound distemper for hospital wards, operation theatres, Specialist consulting rooms, MI waiting, rooms, Admin officer's rooms in hospitals, Labour rooms, Dental Surgery and X-Ray rooms.
Every two years	One coat of oil bound distemper for Offices, Schools etc or two coats of distemper where one coat is authorised every year.
Every four years	Two coats of distemper where one coat authorised every two years.
Tarring and treating with wood preservative	
Every four years	Huts, fencing and other external work, (to be tarred or treated with wood preservative as the case may be)
Yearly	One coat on all wood work, iron work , etc not otherwise treated for following in the hospitals: Wards, Operation theatres, Specialist consulting rooms, MI waiting rooms, Admin officers rooms, Labour rooms, Dental Surgery, X-Ray room, pantry, Sanitary, foul linen stores, cook houses , and other Bldgs/rooms where food is served.
Every two years	One coat on all wood work , iron work etc not otherwise treated for following in the hospitals: Admin Bldgs except Admn Officers rooms, bath rooms, dispensary, laboratory, mortuary, medical and QM stores.
Every three years	Two coats on all wood work, iron work, etc not otherwise treated for all buildings/ portions except those mentioned above.
Internal painting and oiling	
Every two years	One coat on all wood work, iron work, wall surface, ceiling etc not otherwise treated for following in hospitals: Wards operation theatres, specialist consulting rooms, MI waiting rooms, Admin officers rooms, labour rooms, Dental Surgery and X-Ray rooms.

Every two years	One coat on all wood work, iron work etc not otherwise treated for following in hospitals: Pantries, sanitary, foul-linen, stores, cook houses and other buildings/rooms where food is dealt with.
Every three years	One coat on all wood work, iron work etc not otherwise treated for following in hospitals:- Admin Buildings except Admin Officers rooms, bath rooms, dispensary, laboratory, Mortuary, Medical and QM stores.
Every four years	One coat on all wood work, iron work etc otherwise treated for all buildings/portions except those mentioned above.
External Painting	
Every two years	One coat of cement based paint with suitable surface preparation.
Or	
Every four years	Two coats of cement based paint with suitable surface preparation.
Or	
Every Six Years	Two Coats of weatherproof Exterior Emulsion with suitable surface preparation.



VARIATIONS

Variations of the intervals laid down above may be made as follows:-

- a. Hospitals wards may be distempered half-yearly if requisitioned by CMO I/c of hospitals.
- b. Rooms in the hospitals in which infectious diseases have occurred may (after disinfection by the medical authorities) be re distempered, repainted etc. on the certificates of a medical officer that the work is necessary.
- c. Internal painting of schools may be executed every three years.
- d. Lime wash in mortuary may be done earlier on the certificate of a medical officer that the work is necessary.
- e. The external wood work and iron work of new buildings, except those to be treated yearly should be repainted within two years of the completion and thereafter at the normal intervals. The dadoes of stables should be treated twice in the first year after erection and thereafter at the normal yearly interval.
- f. Steel palisading etc in the exposed situations and steel shutters etc of works of defence may be treated to prevent rusting when considered necessary.
- g. The execution of periodical services in a building should, whenever possible, be synchronised so that all such services in the buildings may be carried out at the same time. It may, therefore, be expedient to advance or postpone or the time when certain portions of the work would normally fall due.
- h. The following may be carried out in quarters at every change of occupancy :

Internal Painting in One Coat on wall, ceiling, doors & windows etc. Factory may keep incidental periodical services contract for execution of this work.

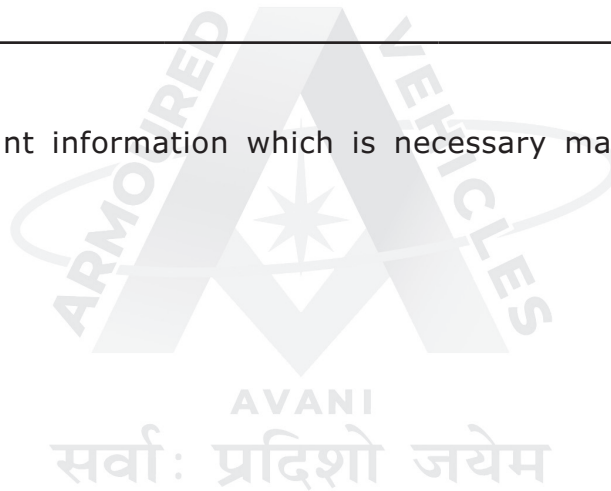
Appendix: H**MINUTES OF CWC MEETING HELD ON DATED DD/MM/YYYY FOR TECHNICAL EVALUATION**

Name of work	:				
Demand No.	:				
Administrative Approval No	:				
Code Head	:				
T.E. NO.	:				
Tender ID No.	:				
1.	Nature of work	:			
2.	a) Basic Cost based on latest SSR without Market Variation.	:	`/- Rupees (Amount in words)		
	b) Market Variation	:	`/- Rupees (Amount in words)		
	c) Total Estimated Cost (a+b)	:	`/- Rupees (Amount in words)		
3.	Mode of Tender	:	Open tender through E-PORTAL		
4.	Bid Submission Starting Date & Time	:			
5.	Bid Submission Closing Date & Time	:			
6.	Corrigendum	:			
7.	Tender Opening Date	:			
8.	Earnest Money Deposit (EMD) amount	:	-----/-		
9.	The details of EMD submitted by the bidders are as follows				
	Sl. No.	Name of the Civil Contractor	EMD required	EMD DETAIL	EMD Validity
	1		-----		
	2				

10.	Eligibility Criteria as mentioned in the tender:				
	A)	Experience of having successfully completed similar type of works during last 07 years ending last day of month previous to the one in which applications are invited should be either of the following:			
	a)	Three similar works each costing not less than 40% of the estimated cost.			
	b)	Two similar works each costing not less than 50% of the estimated cost.			
	c)	One similar work costing not less than 80% of the estimated cost.			
Details of the bidders with reference to eligibility criteria mentioned in technical bid are as follows.					
Sl. No.	Name of Bidder	Estimated cost	Value of work successfully completed by the contractor	Contract Agreement No./ Year of completion	Remarks
1.			1)		Eligibility criteria complied/Not complied
			2)		
			3)		
2.			1)		Eligibility criteria complied/Not complied
B)	Average Annual Turnover during last Three (03) years, ending 31st march of the previous financial year, will be at least 30% of the estimated cost. The bidder's financial capability will be decided based on the average annual turnover.				
The details of GSTIN and the Average annual turnover of bidders are as follows:					
Sl. No.	Name of Bidder	GSTIN	Average annual turnover of last three years	30% of Estimated Cost	Remarks
1.					Eligibility criteria complied/Not complied
2.					Eligibility criteria complied/Not complied
11.	Deliberation/ discussion:				
12.	Decision:				

Name_____		
(Post box symbol)		
(Member/Secy.)		
Name_____	Name_____	Name_____
(Post box symbol)	(Post box symbol)	(Post box symbol)
(Member/ Engg.)	(Member/ User)	(Member/ Finance)
(Name_____		
(Post box symbol)		
(Chairman)		

- Any other relevant information which is necessary may be included in this format.



Appendix: I

MINUTES OF CWC MEETING HELD ON DATED DD/MM/YYYY FOR PRICE BID EVALUATION				
Name of work		:		
Demand No.		:		
Administrative Approval No		:		
Code Head		:		
T.E. NO.		:		
Tender ID No.		:		
1.	Nature of work	:		
2.	a) Basic Cost based on latest SSR without Market Variation.	:	`/- Rupees (Amount in words)	
	b) Market Variation	:	`/- Rupees (Amount in words)	
	c) Total Estimated Cost (a+ b)	:	`/- Rupees (Amount in words)	
3.	Mode of Tender	:	Open tender through E-PORTAL	
4.	Bid Submission Starting Date & Time	:		
5.	Bid Submission Closing Date & Time	:		
6.	Corrigendum (if any)	:		
7.	Tender Opening Date & time	:		
8.	Earnest Money Deposit (EMD) amount	:	-----/-	
9.	Decision of CWC held on dated DD/MM/YYYY for Technical evaluation.	:		
10.	As per recommendation of CWC dated DD/MM/YYYY, price bid of all eligible xx bidders were opened on DD/MM/YYYY.			
	The detail of bid received is shown below:			
	Sl. No.	Name of Firm	Amount as per quotation	Offer Valid up to
	1		_____	DD/MM/YYYY
	2			

11.	Freak rate quoted by L-1 bidder (if any)					
	Item No.	Description	Quantity	Total estimated rate based on SSR+ MV %	Rate quoted by lowest bidder	Percentage above or below estimated rate
Plus Side						
Minus Side						
12.	Analysis of L-1 bidder:					
	a.	Offer of L-1 (Lowest) bidder			M/s (name of the bidder.) ` [offer of the lowest (L1) bidder]	
	b.	Offer of L1 bidder above / below the estimated cost in percentage. (Based on SSR' + MV%, at time of estimation) (Estimated Cost: _____)			_____ % above/ Below	
	c.	Offer of L1 bidder above / below the estimated cost in percentage. (Based on SSR' + MV%, at the time of analysis of the offer) (Estimated Cost: _____)			_____ % above/ Below	
सवा: प्रदिशो जयम						
13.	Details of the correspondence done with the L1 bidder to obtain clarification of freak rates.					
	Details of clarification received from the lowest bidder and details revised rates offered by the lowest bidder (if any):					
	Item No.	Description	Quantity	Total estimated rate based on SSR+ MV %	Rate quoted by lowest bidder	Percentage above or below estimated rate
						_____ % above / below
	Analysis of L-1 bidder:					

	a.	Revised Offer of L-1 (Lowest) bidder (if any)	_____ % above/ Below
	b.	Offer of L1 bidder above / below the estimated cost in percentage. (Based on SSR' + MV%, at time of estimation) (Estimated Cost: ` _____)	_____ % above/ Below
	c.	Offer of L1 bidder above / below the estimated cost in percentage. (Based on SSR' + MV%, at the time of analysis of the offer) (Estimated Cost: ` _____)	_____ % above/ Below
14.	Deliberation/discussion:		
15.	Decision:		
<p style="text-align: center;">Name _____ (Post box symbol) (Member/Secy.)</p> <p style="text-align: center;">AVANI सर्वाः प्रदिशो जयेम</p> <p>Name _____ Name _____ Name _____ (Post box symbol) (Post box symbol) (Post box symbol) (Member/ Engg.) (Member/ User) (Member/ Finance)</p> <p style="text-align: center;">(Name _____ (Post box symbol) (Chairman)</p>			

- Any other relevant information which is necessary may be included in this format.

Appendix: J**WORK DIARY****PART 'B'**

DAILY RECORD _____ Date _____

1. Weather _____
2. Labour engaged by Contractor Skilled Unskilled

Category	Nos	Category	Nos	Category	Nos	Category	Nos
Contractor		Glazier				Mate	
Bricklayers		Plumber				Bhisty	
Mason						Mazdoor (Male)	
Carpenter						Mazdoor	
Joiner						(Female)	
Paviour						Mazdoor (Boy)	
Tiler							
Painter							
Polisher							

3. Important materials brought on site with approximate quantities (rejections, if any to be stated)

Schedule Materials		Contractors Materials		Rejections	
Materials	Quantity	Materials	Quantity	Materials	Quantity

4. Details of plants, equipments and transport working on site

T & P	T & P hired under Schedule 'C'		T & P hired under Schedule 'C'	
	Quantity	Remarks regarding breakdown Maintenance, etc.	Quantity	Remarks regarding breakdown Maintenance, etc.

5. Brief particulars of work in progress
- _____

6. Important stages completed and passed

7. Remarks of visiting officers

Date Signature of Engineer-in-Charge

Date Signature of Contractor or
his authorized agent



Appendix: K

(Cover page)

MEASUREMENT BOOK

No.

Name of the unit	:	
Name of Officer	:	
Date of first entry	:	
Date of last entry	:	

(Internal pages)

Page No. _____

Appendix: L**ABSTRACT OF QUANTITIES FOR RAR BILL**

Name of Work :

C.A. No. :

Sr. No. of RAR bill :

ITEM No.	BRIEF SPECIFICATION	ESTIMATED QUANTITY	UNIT	EXECUTED QUANTITY	RATE (`)	AMOUNT (`)	REMARK
TOTAL							

SIGN OF CONTRACTOR

ENGINEER-IN-CHARGE

SITE-IN-CHARGE



RUNNING ACCOUNT RECEIPT

Name of Work: _____ :

Name of Contractor _____ :

Contractor No/ Year _____ :

I/ We hereby certify that I/ We have performed works and or supplied material on site or incorporation in the works as required by the conditions of Contract and in respect of which I/ We demand payment to the extent claimed below subject to deductions by Government for Reserve Stores issued on repayment charges for water, rent, transport etc. and pervious Running Account payments as shown in detail.

Date: _____

Signature of Contractor _____

Amount of Contract _____ Estimated Value
of work Executed _____

		Minus	Plus
(i)	Estimated value of Work executed at Contract rates		
(ii)	Estimated value of material (other than 'free', issue) on the site for incorporation in the works (vide Statement attached).		
(iii)	Gross Estimated Amount due to the Contractor		
(iv)	DEDUCT Reserve 5.00% on value of work		
	Compensation Reserve Per cent on Security Deposit		
	Carry Over		

		Minus	Plus
	Brought Forward		
	Water Charges @ ` 5.00 per Thousand ` of Value of Work Done.		
	TOTAL DEDUCTION		
(v)	Estimated amount due to Contractor		
(vi)	Deduct advances already paid on Running account Receipts vide: -		
	1st Running Account payment (Voucher No _____ dated _____)		
	2nd Running Account payment (Voucher No _____ dated _____)		
	3rd Running Account payment (Voucher No _____ dated _____)		
	4th Running Account payment (Voucher No _____ dated _____)		
	5th Running Account payment (Voucher No _____ dated _____)		
	6th Running Account payment (Voucher No _____ dated _____)		
	7th Running Account payment (Voucher No _____ dated _____)		
	8th Running Account payment (Voucher No _____ dated _____)		
	9th Running Account payment (Voucher No _____ dated _____)		
	10th Running Account payment (Voucher No _____ dated _____)		
	Total Advance already paid		
(vii)	Net Amount Due to the Contractor In Words:		

Appendix: M**Final Bill****INDEX SHEET**

Name of Work :

C. A. No. :

Name of Contractor :

Sl.No.	Particulars	No. of Pages	Serial Page No	
			From	To
1.	Bill Forwarding Certificate			
2.	Bill Forwarding schedule			
3.	Final contract bill form			
4.	Abstract of quantities and prices			
5.	Work Order (s)			
6.	Deviation Orders			
7.	Statement of stores required			
8.	Details in support of statement of stores required			
9.	Water charges recovery statement			
10.	Demolition Certificate (IAFW- 2201)			
11.	Statement showing details of demolition and disposal of material			
12.	Completion Certificate			

BILL FORWARDING CERTIFICATE

Name of Work :

C. A. No. :

Bill No. :

		Date	Initials
1.	Service Completed		
2.	Measured		
3.	Billed		
4.	Passed by Engineer in-charge to technical Examiner		
5.	Note Sheet Approval		
6.	Bill forwarded to Associated Finance		
7.	Passed by Associated Finance for payment		
8.	Bill paid (Date of ECS)		

BILL FORWARDING SCHEDULE		
Name of Work :		
C.A. No. :		
Name of Contractor :		
SI. No.	REQUIREMENTS	REMARKS
1.	Are the following supporting documents attached and necessary cross reference given on pages 1 and 2 of the final bill form?	
	a) Measurement Book (MB Nos.)	
	b) Original Requisition / Original abstracts (accepted by the contractor)	
	c) Certified true copies of Work and Deviation Orders (including orders for extension of time along with true copies of approval of special rates where involved.	
	d) Statement for recoveries of water	
	e) Statement for recoveries of other miscellaneous items such as rent, electricity, compensation for delay, default, etc.)	
	f) Copy of completion certificate signed by Engg-In-Charge	
	g) Demolition certificate (Where applicable) showing on reverse details of disposal of materials obtained from demolition and page Nos of the demolition register on which materials were taken on charge.	
2.	Has the bill and the above enclosures been signed and dated by Contractor's accredited representative:	
	Note: (Remember that the contractor is not to sign at para VIII of the bill form till the bill is audited by the Associated Finance)	
3.	Have all the Blanks on page No 1 been completed. ?	
4.	Have RARS been taken into account and shown in the summary of the bill?	

Sl.No.	REQUIREMENTS (Contd)		REMARKS
5.	Check and confirm that the "NO CLAIM" certificate at the end of the summary of the bill has been signed by the contractor's accredited agent without any reservation.		
6.	RECOVERY OF WATER		
	a)	Has the recovery for water been accounted for as per the condition of contract?	
	b)	In the event of contractor having to make his own arrangements for water, have you attached the necessary certificate?	
7.	If the work was not completed within the contract or extended period, has compensation due from the contractor been included in the bill?		
8.	Has the deviation limit been extended? If exceeded, has an amendment to contract been issued?		
9.	Are there any other recoveries from the contractor? (i.e. recovery for default or overpayments on other contracts raised)		
			ENGINEER-IN-CHARGE
	The following to be completed before the bill is sent to Associated Finance to be certified by SIC, EIC and TE.		Yes
10.	Have the DOs/ Amendments been sent to Associated Finance soon after these have been approved and accepted by the parties concerned?		Yes
11.	Confirm that payment is made through ECS/ crossed cheque in the name of the contractor.		
12.	Has the contractor informed of the amendments to the bill at every stage and his concurrence to the amendments obtained?		
13.	Has the duplicate copy of the bill and enclosures been amended to agree with the original?		

FINAL CONTRACT BILL No. _____

Date of Commencement of Work : Accepting Officer :
 Date of Measurement of Work : Contract No. :
 Date of Completion of Work :
 Voucher No :
 Name of Work : (Accounting Officer)

Name of Contractor :
 Measurement Book Nos. : _____ Pages

Number Measure or weight	Description of work or reference to abstract Numbers	Page of Bill of Quantities or No. of Schedule Item	Rate	Unit	AMOUNT	
					Minus	Plus
Brought Forward Abstracts attached.						
Carried Over ()						

Number Measure or weight	Description of work or reference to abstract Numbers	Page of Bill of Quantities or No. of Schedule Item	Rate	Unit	AMOUNT	
					Minus	Plus
Brought Forward						
Amount of the Bill at						
					Minus	Plus
Amount of Bill at						
					Minus	Plus
Gross Value of Work						
Add Contract Percentage.....% Deduct						
Gross Value of Work						
Deduct total charges against the contractor in respect of						
1 Water						
2 T & P						
3 Transport						
4 Compensation						
5 Rent						
6 Schedule of credit						
7						
8						
TOTAL CHARGES						
NET VALUE OF WORK						

	Minus	Plus
Brought Forward		
Deduction - Payments made on Running Account Receipts :		
1st Payment Voucher No. _____ Dated _____		
2nd Payment Voucher No. _____ Dated _____		
3rd Payment Voucher No. _____ Dated _____		
4th Payment Voucher No. _____ Dated _____		
5th Payment Voucher No. _____ Dated _____		
6th Payment Voucher No. _____ Dated _____		
7th Payment Voucher No. _____ Dated _____		
8th Payment Voucher No. _____ Dated _____		
9th Payment Voucher No. _____ Dated _____		
10th Payment Voucher No. _____ Dated _____		
Total Payments :		
Net Amount of the Bill :		
Net Amount of the Bill in Words : प्रदिशो जयेम		
Deduct balance (if any) of Security		
ACTUAL AMOUNT TO BE PAID TO THE CONTRACTOR		

I/ We hereby certify that I/ We have performed the work under the conditions of the
 * _____ for which payment is claimed
 and that I/ We have no farther claim under this* _____ beyond the net
 of this bill.

Contractor's Signature

Date :

* Insert "Contractor" or "Work Orders" with Nos as applicable

II ALLOCATION

III Certified that :-

- i) Works have been completed to my entire satisfaction.
- ii) Site has been cleared and all tools and plant have been returned by the contractor.

III (a) Measurements have been correctly made and entered in measurement Book or Requisition details

- (b) Demolition certificate is attached/ not required.

Date:

Signature of Engineer - in- Charge

IV (a) Certified that the measurements or a portion thereof have been checked by me on site.

- (b) Certified the measurements with reference to the contract Drawings, Deviations, Measurement Book Abstract and/ or Requisition details have been technically checked.

- (c) Certified that the Demolition certificate is not required.

Technically Checked

Signature of Technical Examiner.

Date :

V Statement of Security Deposit

	Rs.	P.
Already in deposit		Checked with Measurement Book. Certified that the
Recovered in this Bill		prices charged are either in accordance with rates or
Total Recovered		the contract approved Special Rates Bill passed for
		payment as correct.

(Vide observations attached)

Date:

Signature of Unit. JWM/F&A.

FOR USE IN
Associated Finance

VI Passed for Rs. _____

(To be stated both in words and figures)

Date: _____

Date: _____

Date: _____

Delete as required

VII Received for Rs.

(To be stated in Words)

This payment is in full and final settlement of all money due under and have no further claim in respect of the

Date :

Witness
Address

Signature of Contractor

VIII

FOR USE BY DISBURSING OFFICER

Cheque No. _____ dated _____ for Rs. _____
 issued in favor of _____ on
 _____ Treasury.

Signature of Disbursing Officer

IX Entered in construction Account

[Folio No. _____] and Contractor Ledger
 [Folio No. _____]

Signature of Engineer- in- Charge

Date : _____

Signature of Unit Accountant

Date : _____

X Technically Examined

Date : _____

Signature of T.E.

“ Contract” or “ Works Order with Nos.” as applicable to be inserted by the Contractor.

AVANI
 सर्वाः प्रतिष्ठो जयेम
ABSTRACT OF QUANTITIES AND PRICES

Name of Work :

Name of Unit : _____

Abstract made by : Name _____ Designation _____ Date _____	Site - in- Charge _____ Signature of Engineer-in-Charge _____ Date _____
---	--

Abstract of Quantities and Prices

C.A. No. :

Name of Work :

Name of Contractor :

Measurement Book No :

Item No	Description of work	Unit	Rate	MB Page No		Quantity	Amount
				From	To		

Total Amount of Bill Rs.

In words:

Prepared by: _____

Checked by : _____

Signature of Contractor

WATER RECOVERY STATEMENT

C.A. No. :
Name of Work :
Name of Contractor :
Value of Work done :
at Contractor Rate :

Water Recovery @ Rs 5.00 Per Rs. 1000/- of value of Work done Rs.

Contractor

Engineer-in-Charge.

CERTIFICATE

C.A. No. :
Name of Work :
Name of Contractor :

- 1) It is certified that the contractor has returned contract documents.
- 2) It is confirmed that the contractor has rectified all the defects pointed out in the completion certificate

OR

The contractor has not rectified the defects pointed out in the completion Certificate to my Satisfaction an amount of Rs. _____
(Rupees _____only)

Shall be withheld from the final bill to meet the cost of rectification.

- 3) Certified that the funds are available on the final bill to release the same for payment.

Engineer in Charge

DEMOLITION CERTIFICATE

To be attached to bills in which charges for demolition appear

1. Certified that the materials as per statement on reverse obtained from demolition referred to in Bill No. _____
Date. _____ were:

- a. Partly worthless and spread at site or removed and thrown away entirely.
- b. Partly sold/brought on to stock at a valuation and sale proceeds/assessed value entirely of the work concerned.

Credited to the Maintenance Minor-Head Concerned (See Transfer)

Revenue.

Voucher No. _____ Date _____

- c. Utilized on the same building (or group of building) for the construction of new work or for maintenance.
- d. Utilized on different building (or group of buildings) for the construction of new work or for maintenance and value Rs. _____ (See transfer voucher No. _____ dt. _____) debited to the new work or maintenance and the work concerned credited to maintenance Minor Head concerned Revenue.

2. Certified that Rs. _____ on account of the value of old materials were entered as credit in the estimate of the new work concerned.

3. Certified that page _____ of RPMB of factory/unit and relevant PSMB have been corrected.

Date:

Site in Charge

Engineer in Charge



Completion Certificate

C.A. No. :

Name of Work :

Name of Contractor :

Completion Cost :

I hereby certify that the work under the CA No.....for “.....”
Has been satisfactorily completed on dated..... and taken over by AVNL unit.

Date:

Engineer in- Charge



Appendix: N**FORMAT FOR DEMOLITION STATEMENT**

Building proposed to be demolished					Condemnation Report giving reasons for demolition and whether the Bldg cannot be utilized for any other purpose	Estimated Cost of Demolition (Rs. Lakhs)	Estimated cost of Salvage material (Rs. Lakhs)	Any other remarks
'Building No' of the Structure	Page No of the Block Register	Name of the Building/ Structure	Year of taking over of building/ structure	Depreciated Book Value / Assessed value(Rs. Lakhs)				
1	2	3	4	5	6	7	8	9

Signature

Associated Finance

Signature

HOD of Unit

Appendix: O**Format for Internal Audit of works & works procedure followed by factories.**

Responsibilities of Audit team will be to inspect and audit the following		
1.	Observation of rules & regulation/documentation :	
a)	Examinations of site to works have been executed in accordance with terms and conditions of contract and quantity and quality of works: Random check.	
b)	Incidence of payment of amount without entry in Measurement Book: Random check.	
c)	Checking of bill to see that deviation limit has been violated.	
d)	Checking of time of completion of works w.r.t. terms of contract and justification of extension of time if granted.	
e)	Maintenance of various documents/registers and Updation the same periodically by factory.	
f)	Processing proposal through e-procurement or other mode.	
2.	Maintenance:	
a)	General standard of upkeep and maintenance of building and services in factory and estate.	
b)	Compliance of instructions for testing and ensuring soundness of structures of buildings, overhead tanks etc. with particular emphasis for the valuable structures/constructions	
c)	Status of implementation of remedial measures as per observations made by safety audit teams/board enquiry, if any.	
d)	Action taken on inspection / audit report of last year.	

**REPORT : OBSERVATION OF RULES AND REGULATIONS,
DOCUMENTATION.**

1. Random Examination of site to check that work executed in accordance with Terms and conditions of contract and quantity and quality of works.

Demand No.	Name of Works	Remarks

2. Incidence of payment of amount without entry in Measurement Book.

Demand No.	Name of Works	Remarks

3. Checking of Bill to see that deviation limit has not been violated.

Demand No.	Name of Works	Remarks

4. Checking of time of completion of works w.r.t. terms of contract and justification of extension of time if granted.

Demand No.	Name of Works	Remarks

5. Maintenance of various documents / registers and updating the same periodically by factory.

Item	Asset of Factory / Estate	Data/Drg. Available for
Buildings	Nos	Nos
Road networks	Kms	Kms

6. Number of TEs processed through e-procurement or other method.

Type	No. of Tenders	Highest Est. Cost	Lowest Est. Cost
e-procurement	Nos.	Rs.	Rs.
Other Method	Nos.	Rs.	Rs.

7. Number of cases where tender condition has been changed after opening of TE.

8. Report on Maintenance of Factory / Estate.

8.1 Number of buildings crossed 60 years life.

Action taken for checking stability of those buildings.

Action taken for assessing for further use of those buildings.

Likely date for completion of above works & submission of report.

8.2 Number of buildings for which action was to be taken as per Safety Audit Team :

Action taken against each case (Detail data).

8.3 Number of Buildings for which Periodical Services (P.S.) is due : (Factory/Estate)

Nos.	P.S. Due	Action taken (Stage: TS/TE/TPC/CA Placed)	P.D.C.
	1-2 years		
	2-4 years		
	4-6 years		
	>6 years		

8.4 Length of road (Kms) re-surfacing not carried out (factory/estate wise).

Length	Time	Action taken (Stage: TS/TE/TPC/CA Placed)	P.D.C.
5-8 years			
8-10 years			
10-12 years			
>12 years			

8.5 Remarks on drains filled with silt, shrubs, grasses etc.

- 8.6 Number of condemned buildings not demolished & action taken for each case.
- 8.7 Status of functioning of sewage disposal system/effluent treatment plant.
- 8.8 Status of lightening Protection on buildings and structures.
- 8.9 Whether energy saving measures incorporated in buildings. To confirm whether use of incandescent lamps has been stopped or not.

Signature of Audit Officer

Signature of Auditee





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