

STANDARD OPERATING PROCEDURES

For

CIVIL WORKS

In

“ORDNANCE FACTORIES”

UNDER

“MUNITIONS INDIA LIMITED”



WORKS MANUAL- 2023

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1. Objective

- 1.1 The objective is to ensure that all Civil & Electrical Works and Services in all units under Munitions India Limited (MIL) are completed within planned time frame and in a cost- effective manner.
- 1.2 Present works manual enumerates the mechanisms for execution of works and services undertaken through Civil works Contract.
- 1.3 This manual is also applicable for the works to be executed through MES/DRDO/CPWD/ Public Works Organization (PWO)/designated Central or State Government Agency/ PSUs / Reputed Private Sector Organization registered with MES/CPWD/DRDO/Central or State Government Origination or enlisted with MIL units. After issuance of admin approval, the procedure prevalent with the above mentioned agencies will be followed by them.
- 1.4 To maintain modern manufacturing and infrastructure facilities include township, general infrastructure & amenity buildings.
- 1.5 Have a uniform and systematic integrated approach to execute the work as per the time schedule and also meeting quality & service level requirements of user / divisions.
- 1.6 To facilitate the decisions of administrative authorities to ensure that they are transparent, accountable and time bound.

2. Abbreviations & Definitions

- 2.1 Works: Works means Civil/ Electrical/ any other related works pertaining to "fixed assets" (both revenue and capital in nature) like creation/ addition/ alteration/ maintenance/ dismantling/ demolition etc. required for the operation of the Ordnance factories/ units of MIL.
- 2.2 CFA (Competent Financial Authority): Competent Financial Authority is the officer of the MIL unit authorized to exercise the power of approval, sanction, and accept concerning technical, administrative and financial aspects of transactions on behalf of MIL.
- 2.3 CEA (Competent Engineering Authority): Competent Engineering Authority is the officer of the MIL unit authorized to exercise the power of approval of technical sanction of the works including drawings, designs, layout etc.
- 2.4 EIC (Engineer-In-Charge): Engineer-In-Charge is the officer of the MIL unit nominated by Competent Financial Authority for the individual contract agreement (CA) for overall supervising and administrating the contract.

- 2.5 SIC (Site-In-Charge): Site-In-Charge is the officer of the of the MIL unit nominated by Competent Financial Authority for the individual contract agreement (CA) for supervising the work executed on his behalf of EIC. However overall responsibility, as far as the work concerned will be vested with the EIC.
- 2.6 A/A (Administrative Approval): Administrative Approval means sanction of competent authority as per delegation power of MIL to the execution of any work at a stated cost.

3. Basic Principles

- 3.1 For proper upkeep of factory and estate the necessary works & Services should be planned timely and proposals to be initiated based on requirement.
- 3.2 Acceptance of necessity (AON) and technical sanction (T/S) forms basic document for initiation of any work.
- 3.3 Acceptance of Necessity (AON) denotes acceptance by competent authority of the need for execution of work proposed based on rough estimates.
- 3.4 Technical sanction will be approved by the competent authority or other officer(s) nominated by competent authority. Technical sanction denotes approval of competent authority or other officer(s) nominated by CFA to the scheme and detailed estimates of works proposed to be carried.
- 3.5 All works & Services will be executed only after administrative approval and technical sanction having first been obtained from the authorities appropriate in each case.
- 3.6 New works should be sanctioned after due diligence taking into consideration existing assets/infrastructure, time and cost required to complete new works.
- 3.7 If an approved work (Capital works) is not commenced within one year of the date of demand Approval, the same will be included in the subsequent year ACP for revalidation of demand by MILHQ.
- 3.8 If an approved work (Revenue works) is not commenced within one year of the date of Admin Approval, the same will be put up for revalidation of demand by CFA.
- 3.9 To undertake emergency works/services, procedure laid down in subsequent para 8.16 of this manual would be followed.
- 3.10 During the course of financial year, all OFs/ units of MIL will contain expenditure within the allotted fund under respective code head.

- 3.11 The final cost of any Work & Service will not exceed the amount of Administrative Approval by more than 10%. In case of AA Exceeding beyond 10%, prior sanction of CFA in form of Financial Concurrence (FC) is to be taken and revised AA to be issued.
- 3.12 Saving from Administrative approval will not be utilized to meet excess in respect of work covered by other Administrative approval.
- 3.13 Generally all major projects involving Civil Works, Electrical, Air-conditioning/steam line/Chiller line /compressed air line (HVAC), Roads and Drains, Water supply, Sewage and allied works will be executed as Integrated Projects & evaluation of the bids would be on the total contract value. In special cases to take advantage of specialized agencies for execution of work, or to save time if the project is being implemented in phases or to ease logistic issues like locations, distance, resource availability etc., certain works can be tendered out separately. The reasons for going in for separate contracts are to be indicated while putting up administrative approval of competent authority. However, works should not be split in order to bring it within powers of lower CFA.

4. Works & Services:

- 4.1 Works and Services based on technical as well as statutory requirements of industrial Units under MIL are to be approved by the Competent Financial Authority (CFA) as per latest delegation of financial powers of MIL.
- 4.2 Works & Services of residential, Office and other accommodations including amenity building are to be planned based on scales stipulated in MES Scale of Accommodation of Defence Services-2009/ CPWD (for new work only).
- 4.3 Works related to construction and upkeep of roads to be followed based on technical and functional requirement and to be approved by the Competent Financial Authority (CFA).
- 4.4 For major projects, consultancy for design/estimate/execution to be approved by CFA.
- 4.5 While planning, due importance to be given for Swachh Bharat (Appendix 'A').
- 4.6 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.
- 4.7 Furniture will not be a part of civil works.

4.8 Classification of works: Civil works are primarily classified into original Works (Capital works), Special Works and Repairs Works (Revenue Works).

4.8.1 Original Works (Capital Works):

- a. Original works comprises of new Civil constructions including interior / exterior decoration works & infrastructure development and other Engineering works like Electrical, Mechanical, Roads etc.
- b. 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, also fall in the category of original works.
- c. In case where additions and alterations to a building become necessary due to administrative or technical/ engineering reasons, resulting in change in the plinth area, the work will be sanctioned as one project and treated as a Capital Work.
- d. Replacement of overhead electrical lines with underground lines.
- e. Replacement of underground old electrical lines.
- f. Repair/Renovation work exceeding Rs.50 lakhs shall be processed as Capital Works and it has to be approved in ACP except Periodical Services for which GM has full powers.
- g. Factory finance should monitor all capital work cases. Also, maintain the respective vouchers (Building, water line, sewer line, Road, electrical works, Air/chiller/compressed air line etc.) simultaneously without fail after release final bill for proper accounting of factory asset. The Factory finance shall also capitalize the relevant revenue expenditure as stipulated under relevant Accounting Standards such as GAAP, Ind-AS etc.

4.8.2 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 Scale of accommodation of MES/CPWD (Only for new work) 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 exceptional work should be justified.

- c. Special repairs also fall in the category of Original Works (Capital Works).
- d. 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.
- e. If a building or services is categorized as "Special", all the connected items thereto will be termed as "Special".
- f. If few items (not more than 10% value of estimated cost etc.) are beyond Scales of accommodation, in that case the Work may be treated as authorized.

4.8.3 Repairs Works (Revenue Works):

- a. Repairs comprise of all maintenance like plastering, replacement of doors and windows, roof, false ceiling, flooring, replacement of water supply fittings/ lines, sewage lines, water proofing, roof sheeting, repairs to storm water drains etc. which are required as and when the necessity arises and is noticed during inspection by supervisory staff whether suo-moto or on complaints from allottee/ user.
- b. Stability testing, demolition of buildings, renewals and replacements as necessitated based on technical requirements.
- c. Periodical services like white washing, distempering, painting to buildings, electrical & mechanical installations and equipment's, including Maintenance of Roads.
- d. Work undertaken to maintain & restore original physical condition & functional performance of an asset.
- e. Modification, Additions and Renovation work without increasing floor area to be considered as repair / maintenance work.
- f. Maintenance of roads including resurfacing, repairs, side shoulders, nearby drainage, side slopes etc.
- g. 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 Sr.GM/GM/HOD in case when condition of the road is found extremely bad.
- h. The thickness and specification of the resurfacing will be done as per the specification and thickness mentioned in the road register.

- i. In case the road register is not available, this aspect will be decided by the board of officers.
 - j. Sr.GM/GM/HOD may also carry out the following works under revenue works:
 - i. Periodic cleaning (Every Six Months) and internal painting (if required) of all GSR (Ground Service Reservoirs), ESR (Elevated Service Reservoirs) and overhead tanks of residential & nonresidential buildings.
 - ii. Removal of vegetation grown on building, trimming of branches of trees leaning on buildings & electrical lines.
 - iii. Cleaning of roofs, chajjas and valley gutters etc.
 - iv. Welcome maintenance contract for quarters.
- 4.9 For installation of plant and machinery, civil & Electrical work will be executed under revenue works but the total cost involved for Civil & Electrical work should be book to P&M capital work subsequently.

5. Functions

- 5.1 User section has initiated/ finalized the requirement of works.
- 5.2 User section gets budgetary estimates from CE/EE section and takes necessary approval from competent authority.
- 5.3 User section will participate in finalization of drawing/ design, if necessary and assist in execution of work as and when required.
- 5.4 For maintenance works CE/EE section will be the user. For other works CE/EE section will get formal approval from stake holder to process the case.
- 5.5 CE/EE section will prepare designs, plans, estimates, schedules and other documents required for tender.
- 5.6 CE/EE section will execute the work according to schedule with the assistance of EIC/SIC.
- 5.7 The tendering and awarding of work will be taken up by Engineering Office (Civil) as ideally the tendering and award of work should be independent of execution.
- 5.8 CE/EE section (execution agency) has responsibility for endorsement of PF & ESI remittance to workmen in construction contracts.

6. Finance & Accounts functions

- 6.1 Finance & Accounts section will participate in various stages in processing of civil works.
- 6.2 Finance & Accounts section will concur the proposal on the basis of approximate estimates (AEs), Acceptance of necessity (AON) along with scope of work/ Board Proceedings etc.
- 6.3 Finance & Accounts section will participate in finalization of tender, participate in commercial discussion and price negotiation through Civil Works committee (CWC).
- 6.4 Finance & Accounts section will participate in scrutiny of contracts (Post audit), amendments and deviation order thereto and rates for extra/ substituted items.
- 6.5 Concurrence of proposal for levy / waiver of liquidated damages.
- 6.6 Arithmetical checking of measurement sheets, checking and payment of contractor's and supplier's bills and Maintenance of Contractor's ledger.
- 6.7 Checking and payments of bills.
- 6.8 Maintenance of ledgers for security deposit, earnest money deposit, advances, sundry creditors etc.
- 6.9 Accounting of payments and stores transactions relating to the works.
- 6.10 Capitalization of completed works, provisions for depreciation, submission of periodical reports and preparation of all schedules relating to annual accounts.
- 6.11 Maintenance of records related to all recoveries, taxes etc.

7. Capital & Revenue works plan

- 7.1 Capital Works Plan:
 - 7.1.1 All units of MIL will prepare Annual Civil Plan (ACP), in consultation with associated finance.
 - 7.1.2 ACP, comprising of Capital Works, duly concurred by associated finance & approved by HOD of unit would be forwarded to MILHQ.
 - 7.1.3 While preparing ACP, MIL units shall review its committed liability in the form of carry over works and the time and effort as well as funds required for planning and

executing new works. New proposals shall be projected in ACP with due consideration to keep the committed liability within manageable limits of carry over works & its progress.

7.1.4 Supplementary ACP can be forwarded, only in case of urgent requirement, approved by HOD of unit and duly concurred by associated finance, justifying the reasons thereof.

7.1.5 While forwarding ACP to MILHQ for approval of necessity, every proposal shall be accompanied by following documents:

a. Statement of Case for New Works: **(Appendix D)**

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) vetted by factory finance & Account (Appendix 'F').

c. An Engineer's appreciation duly signed by GO/CO of engineering (CE/EE) division. (Appendix 'G').

d. Drawing, wherever applicable, related to Building assets/road/electrical cabling/pipe line/sewer line/Culvert/drain/HVAC system etc., showing location for new construction, plan with cross sectional details etc., with unit Drawing No, north direction/ landmark, if any, dimension/scale etc. duly approved by GO/CO of engineering (CE/EE) division.

- e. Concurrence of associated Finance in SOC and RIC.
 - f. View /demand of stake-holder for the following:
 - i. Safety officer for proposal related to safety or pollution control.
 - ii. Quality officer for proposal related to quality.
 - iii. Security Officer & Estate officer for proposal related to safety/security in estate.
 - iv. Estate officer for construction of new accommodation.
 - v. Security Officer for proposal related to DSC & Security.
 - vi. CFEES for explosive processing building or related work and any other proposal in protection against fire hazard.
 - vii. Production officer for work related to production activities.
 - g. Recording of minutes of meeting if any viz. production review meeting, safety meeting, WC/JCM Meeting, Security meeting etc.
 - h. Recorded decision if any, after visit/round of HoD Unit inside factory/Magazine or in Estate.
 - i. Communication received if any, from DDP, IB or MILCO for matter of security.
 - j. Safety audit observation at all levels if any, of MILCOS for any capital works.
 - k. Board of Condemnation report, duly approved by competent authority for construction of new infrastructure after demolition of old one.
 - l. In case of demolition of infrastructure before completion of life, regularization of residual book value.
 - m. Requirement projected by any user (Production/service section/safety)
 - n. Credit for dismantled items in RIC -II.
- 7.1.6 ACP would be approved by Director/MIL, in consultation with MIL/ Finance & operation approving the necessity of the works.
- 7.1.7 After approval of ACP, administrative approval will be accorded by CFA of concerned unit for tendering and execution of work.
- 7.1.8 ACP completed in all respect should be forwarded to MILHQ by 30th April every year. Factory unit under MIL has to initiate the process in advance for timely submission of plan.

7.2. Revenue works plan:

- i) 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.
 - Periodicity of maintenance.
 - Reports of factory and estate round by Sr. GM/GM/HOD.
 - Inspection carried out by maintenance section and requirement raised.
 - Works Committee and other such statutory bodies' decisions.
 - Any other report after approval of CFA
- ii) Plan annual maintenance work to assess the fund requirement for the year. New proposals shall be planned with due consideration.
- iii) Based on requirement the estimate is to be prepared by maintenance section on not exceeding basis.
- iv) Revenue works plan will be approved by Head of units under MIL irrespective of financial powers.
- v) Acceptance of Necessity (AON) denotes acceptance by competent authority of the need for execution of work proposed based on estimates. Based on statement of case, which consists of justification with brief scope of work CFA accept the necessity of work.
- vi) After Acceptance of Necessity, 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 Index.
- vii) Before resorting to tendering of the work, Acceptance of Necessity (AON), Technical Sanction (T/S) and Administrative Approval (AA) are to be got approved from CFA.

8.0. Execution of Works and Services through Military Engineering Services.

The following are the major steps for execution of works through MES.

- 8.1. Seeking of RIC by forwarding brief scope of work prepared by maintenance section/ Board of officers for projection of work in ADP.
- 8.2. Acceptance of demand /Issue of acceptance of necessity in ADP.

- 8.3. Issue of convening order after issuance of acceptance of necessity by CFA or as authorized. (Appendix 'H')
- 8.4. Holding of Recce-cum-siting-cum-costing board for finalization of detailed scope of work, time frame and other requirements if any.
- 8.5. Approval of board proceeding by CFA.
- 8.6. Receipt of detailed estimates after due clearance/scrutiny by appropriate competent authority of MES (CE/ADG).
- 8.7. Issuance of Admin approval based on board proceedings and detailed estimates by HOD of Unit irrespective of work falls within delegated financial power of HOD(Unit)/ Director (MIL) / Chairman & Managing director/MIL within approved cost as mentioned in AON.
- 8.8. Further processing shall be carried out by MES/ as per their procedures.
- 8.9. After issuance of WO by MES, Sr. GM/ GM/ HOD shall nominate his representative for day to day monitoring and liaising with MES.
- 8.10. As a guide, following meetings may be scheduled to monitor the progress of the works assigned: -
 - Monthly Meeting between GO/CO of Engineering Office and GE/MES.
 - Quarterly Meeting between HOD/Unit and CE (Fy) Hyd or as decided by HOD for the work ordered by CE.
 - Half-Yearly Meeting between Director/MIL and ADG (projects) Chennai.
(However, these units of MILHQ may decide the above as per importance of the work/ project.)
- 8.11. After completion of work/ project handing over/ taking over shall be carried out.
- 8.12. The list of documents at the time of handing over/ taking over to be submitted by MES. (Appendix 'M')
- 8.13. Revised Admin Approval is essential if there is any change in scope of work due to any reason, irrespective of the cost is within the tolerance limit.
- 8.14. No change in site is permissible however in exceptional circumstances; it is permissible with the approval of Director/ MIL.
- 8.15. The relevant RMES and IAFW 2249 procedures to be followed for MES works as amended time to time.
- 8.16. 'Go Ahead Sanction' of Emergency Works:

Notwithstanding the procedure described for safety/security or other technical reasons, Competent Financial Authority may resort to selective tender through Limited Tender Enquiry for completion of work in a time bound manner. Such cases should be processed in terms of provisions relevant for 'go-ahead' sanctions, i.e. para 34-37 of MES DWP 2007 (Appendix 'N').

9.0. Procedure for execution of works and services through Central Public Works Department/DRDO/Public Works Organization (PWO)/designated Central or State Government Agency/ PSUs / Reputed Private Sector Organization—registered with MES/CPWD/DRDO/Central or State Government Origination or enlisted with MIL units.

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

- 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 ACP.
- 9.2. Acceptance of demand /Issue of acceptance of necessity (AON) in ACP for total cost which includes the enabling cost also.
- 9.3. Issue of convening order after issuance of acceptance of necessity in ADP (Appendix 'H').
- 9.4. Holding of Recce-cum-siting-cum-costing board for finalization of detailed scope of work, time frame and other requirements if any.
- 9.5. A separate board proceeding shall also hold for enabling additional work for that CFA will issue separate A/A.
- 9.6. Approval of board proceeding & submission of detailed estimate to CFA.
- 9.7. Issuance of Admin approval based on board proceedings and detailed estimates by HOD/Unit irrespective of work falls within delegated financial power of HOD(Unit)/ Director/ MIL / Chairman & Managing Director(MIL) within approved cost as mentioned in AON.
- 9.8. Revised Admin Approval is essential if there is any change in scope of work due to any reason, irrespective of the cost is within the tolerable limit by MIL.
- 9.9. No change in site is permissible however in exceptional circumstances it is permissible with the approval of Director/MIL.

- 9.10 Signing of MoU between Sr.GM/GM/HOD and CPWD/other govt. agencies/PSUs as per their formats (mutually agreed).
- 9.11 Deposit of appropriate amount/ fund as per MoU terms and conditions.
- 9.12 Further processing shall be carried out by CPWD/DRDO/ other govt. agencies/PSUs as per CPWD/ other govt. agencies/PSUs works procedure.
- 9.13 After issuance of WO by CPWD/Other govt. agencies/PSUs, Sr. GM/ GM/ HOD shall nominate his representative for day-to-day monitoring and to liaison with CPWD/Other govt. agencies/PSUs.
- 9.14 As a guide following meetings may be scheduled to monitor the progress of the works assigned:-
- Monthly Meeting between GO/CO of Engineering Office and SE/EE of CPWD/Other govt. agencies.
 - Quarterly Meeting between HOD/Unit and CE/ ADG CPWD/Other govt. agencies as decided by HOD.
- (However, these units of MILHQ may decide the above as per importance of the work/ project.)
- 9.15 After completion of work/ project handing over/ taking over shall be carried out.
- 9.16 The list of documents at the time of handing over/ taking over to be submitted by CPWD/Other govt. agencies (Appendix 'M').
- 9.17 The latest works manual, specification and scale of accommodation of MES/CPWD/other govt. agencies shall be applicable.
- 9.18 For smooth execution of work, Project Monitoring Group (PMG) shall be formed comprising members of Factory and Rep. of executing agency viz. CPWD/MES/DRDO/Other Govt. agencies/Private organizations registered with MES/CPWD/DRDO/Central or State Government Origination or enlisted with MIL units etc. GM/HOD shall constitute the Committee comprising of 03 members with Presiding officer /Factory (not below the rank of Controlling Officer) for regular monitoring of work and subsequent Handing over/ Taking of work.

**Note: - Enabling estimate will include the expenditure for soil investigation, site surveying, Design, Drawing and estimation.*

10.0 Execution of works and services through Departmental contracts (for Capital or Revenue works)

10.1 Types of contracts

The following forms of contracts are authorized:

10.1.1 Lump sum contract:

Lump sum contract can be concluded based on bills of quantities, or on pre- priced schedule of work, or on drawings and specifications.

10.1.2 Measurement contracts:

It is categorized as under.

- a. Term contract for minor work and maintenance services;

Term Contract: Wherever rates for various items are fixed with / without quantities, which will be valid for a specific period. Term contracts may be established for minor works. The value of each work order to be entrusted under term contract shall not exceed Rs.04 Lakhs subjected to following reservations viz.:-

Sl. No.	Nature of Work	Individual WO limit (₹)
1	Periodical Services	20,000/-
2	Road and Path	20,000/-
3	Electrical/Water supply works	50,000 /-

Under particular Term Contract only one Work order shall be issued for maintenance of a particular building.

No authority should exercise its power of sanctioning expenditure to pass an order which will be directly or indirectly to it's own advantage.

Term contract for electrical woks can be concluded separately however, the individual work order shall not exceed 1,00,000/- each.

- b. **Percentage rate contract** should be used in following circumstances:

When there is difficulty in estimating quantities and identifying the exact items of work until the work has commenced, e.g. extensive roof and floor repairs, renovation to dilapidated structures etc.

- c. **Item rate contract** in suitable cases, where large quantities of work involving small number of items have to be worked out, but exact quantities are not known.

- d. **CSR Works (Under CSR Budget)**

In line with the provisions of company Act 2013 and Rules notified there under and keeping in view MIL CSR policy amended from time to time CSR works can be

executed through departmental contracts. Accordingly, the works which are taken up by the MIL under CSR activity/budget shall be treated as CSR Work.

e. Spot Tenders

All the readily available / approachable and well known contractors may be contacted and their offers obtained in prescribed tender forms [issued free of cost] in sealed envelopes on specified date and time. Generally Registered and or working contractors in appropriate category depending on estimated value of work shall be considered for spot tendering. The spot tender can be issued to approved agencies through e-portal (CPPP) under limited tender and in case of Manual tendering system the documents shall be handed over / collected by hand in sealed envelope. The powers to accord spot tenders is as follows. The authority for execution of spot tender will be as per Delegation of financial power.

The value of Spot tender is as per DFP MILCO

10.2 Requirement of work and framing of specification.

10.2.1 Scope of work shall be finalized by maintenance section(s) (CE/EE) along with user section. The line sketch of project according to the requirements should be prepared in consultation with user.

10.2.2 Rough estimates will be prepared by CE/EE section. Provision for services like sanitary, water supply, drainage, electrical etc. will be catered in the estimates.

10.2.3 For minor works and regular maintenance works, maintenance section(s) (CE/EE) will be the user.

10.2.4 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 and other related sections may be constituted for deliberation and finalizing scope/ specification of work if felt necessary by Sr.GM/GM/HOD.

10.2.5 Acceptance of Necessity (AON) denotes acceptance by competent authority of the need for execution of work proposed based on rough estimates.

10.2.6 Based on scope of work/ Board Proceedings (BPs) and rough estimates, CFA accept the necessity of work (AON).

10.2.7 After Acceptance of Necessity, based on scope of work/ Board Proceedings/ drawings/ technical designs, detailed estimate shall be prepared by maintenance section(s) on the basis of MES SSR with current MV/CPWD DSR with current Cost Index.

10.2.8 Where rates are not available in MES SSR/CPWD DSR, Star rates shall be deduced as per MESR. For estimation work quotation from minimum two firms of having GST

No. can be taken by maintenance section. Lowest rates can be endorsed in estimates after approval of DO/GO of their section. The analysis of rate will be done before approval if necessary.

10.2.9 Past procurement rates as per previously executed WOs with suitable escalation can also be used for estimation if work executed is not beyond two years old.

10.2.10 The estimate should not contain items with conflicting, vague and ambiguous provisions resulting in disputes, delay and financial losses

10.2.11 Specifications incorporated in the detailed estimates should be precise and comprehensive and should be carefully drawn.

10.2.12 In case of major projects, data for preparing estimates should be collected from the local authorities / Units. Soil investigations and tests to determine the safe bearing capacity of the soil shall be conducted, wherever required.

10.2.13 The estimate will be based on specifications and detailed working of quantities and rates with an abstract showing the total estimated cost of each item, for major projects.

10.2.14 The estimates for periodical services will be initiated by maintenance section based on Periodical Services Measurement Books (PSMB) & normal periodicity as per Annexure-E. PSMB will indicate details of all buildings to be painted/ distempered/ colour washed area thereof and the date on which services were last rendered. PSMB will be maintained by CE section.

10.2.15 In road repairing work line plan/ drawing is mandatory. Road register will be maintained by CE section. Road register indicate details of road with specifications and date on which roads were last repaired.

10.3 Classification of work will be as per para 4 above.

10.4 Time for completion of the work will be indicated in AE part-I.

10.5 Processing of demand.

10.5.1. CE/EE sections will forward the approximate estimates (AEs) duly approved by GO and Board Proceedings duly approved by CFA for the approved demand (work). If required drawings/ designs shall be accompanied with proposal.

10.5.2. In case where civil and electrical works are involved in the estimate, CE section will process the demand after taking estimates from EE section. In that case AE part-I will be prepared by CE section and approved by Group officers of both the sections. If required drawings/ designs shall be accompanied with proposal.

- 10.5.3. EO shall scrutiny detailed estimate/ drawing/ scope of work etc. within 07 working days and forward the same to finance section for concurrence.
- 10.5.4. Finance section shall concur the demand within a reasonable time. After associated finance concurrence, EO shall put up for issue of technical sanction (T/S) and Admin Approval to CFA.
- 10.5.5. Technical sanction will be approved by the competent authority or other officer(s) nominated by competent authority.
- 10.5.6. Technical sanction denotes approval of the competent authority to the scheme and detailed estimates of works proposed to be carried out for which administrative approval to be obtained.
- 10.5.7. Authority according technical sanction should satisfy that the technical aspects of the proposal and estimates are based on adequate data.
- 10.5.8. Administrative approval will be accorded by the CFA to the execution of works after due examination of AE's. Time for the completion of works will be clearly indicated in the Administrative approval. Mode of tender and details of financial concurrence will be mentioned in the Administrative approval.
- 10.5.9. After approval, if Scope of Work is required to be changed then the same shall be done with the approval of CFA indicating the reasons required for Change in scope of work. In case of change in scope after MILHQ approval, the MILHQ shall be kept informed of the change and the reasons thereof & simultaneously MILHQ approval is necessary.
- 10.5.10. For direct contracts, Factory may issue items to contractor for fixing. Such items will be issued as Schedule-B and cost of material issued would be added to estimates.

10.6 Tendering procedure and E procurement:

- 10.6.1 After Admin Approval, engineering office shall upload the tender in e-procurement website without any delay. NIT shall be prepared by EO indicating estimated cost and time for completion with other details.
- 10.6.2 NIT will be forwarded to all registered and working contractors through e-mails also. In addition, further publicity can be given by sending the NIT to the concerned local central Govt./ PSUs through e-mails for broad publicity.
- 10.6.3 The bidding period shall normally be 21 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.

10.6.4 Tender documents will be prepared by EO. Tender conditions shall be approved by respective CWC.

10.6.5 In case of works estimated to cost Rs. 1 Crore and above, a Pre-Bid Meeting can be held with approval of HOD under the chairmanship of AGM/EO including member of user about 15 days before the last date of submission of Tender for clarification of any doubts of the prospective bidder on any conditions of the contract specifications etc.

10.6.6 Pre-Bid meeting may be conducted for specialized works of intricate/ complex nature or turnkey contracts or composite contracts.

10.6.7 Single offer/ Resultant single tender shall be decided by relevant CWC.
Single offer/Resultant single tender(RST)

Sometimes, against advertised/ limited tender cases, the procuring entity may not receive a sufficient number of bids and/ or after analyzing the bids, ends up with only one responsive bid – a situation referred to as 'Single Offer'. As per Rule 21 of DFPR (explanation sub-para), such situation of 'Single Offer' is to be treated as Single Tender. The contract may be placed on the 'Single Offer' bidder provided the quoted price is reasonable. However restricted powers of Single tender mode of procurement would apply. Before retendering, the procuring entity is first to check whether, while floating/ issuing the enquiry, all necessary requirements and formalities such as standard conditions, industry friendly specification, wide publicity, sufficient time for bidding, and so on, were fulfilled. If not, a fresh enquiry is to be issued after rectifying the deficiencies. It has become a practice among some procuring entities to routinely assume that open tenders which result in single bids are not acceptable and to go for retender as a safe course of action. This is not correct. Re-bidding has costs: firstly, the actual costs of retendering; secondly the delay in execution of the work with consequent delay in the attainment of the purpose for which the procurement is being done; and thirdly the possibility that the re-bid may result in a higher bid. Lack of competition shall not be determined solely on the basis of the number of bidders. Even when only one bid is submitted, the process may be considered valid provided following conditions are satisfied:

- i) The procurement was satisfactorily advertised and sufficient time was given for submission of bids;
- ii) The qualification criteria were not unduly restrictive; and
- iii) Prices are reasonable in comparison to market values

However restricted powers of Single tender mode of procurement would apply. In case of price not being reasonable, negotiations (being L1) or retender may be considered as justifiable.

10.6.8 Bid validity period shall be 120 days. Efforts will be taken to complete the process within validity period.

10.6.9 Two bid system of tendering should be followed. The two bid system can consist of pre-qualification (Technical) bid and price bid.

10.6.10 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.

10.6.11 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).

10.6.12 Bid approver (BA):

BA will approve the bids after thorough scrutiny.

10.6.13 Bid-Opener (BO):

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

10.6.14 The BC, BV, BA and BO will be nominated by CGM.

10.6.15 The warranty period/defect liability period shall be generally twelve months from the date of completion of work. However for special nature of work like roads, roof leakages, CI/DI water/Fire hydrant pressure line, water tightness of GSR/ESR/Static tanks & E/M installations (manufacturer's warranty period), Anti-static/Epoxy/Mastic/Acid resistance/Fire resistance flooring etc., it can be decided by HOD of Unit and mentioned in TE.

10.6.16 Earnest money deposit (EMD):

a. EMD shall be as per following table.

SL. No	Estimated cost of the work	Earnest Money
1.	Upto Rs. 50 Lakhs	2% of the amount subject to a minimum of Rs. 5000/-.
2.	Over Rs. 50 Lakhs and Upto Rs. 100 lakhs	RS.1,00,000/- + 1.5% of amount exceeding Rs. 50 lakhs.
3.	Over Rs. 100 Lakhs and Upto Rs. 500 Lakhs	Rs. 1,75,000/- + 1% of the amount exceeding Rs. 100 lakhs.
4.	Over Rs. 500 Lakhs and Upto 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/-.
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- b. EMD shall be deposited in the form of Demand draft, Bankers cheque, fixed deposit receipt and Bank Guarantee (BG) from any of the Commercial Bank in the name of HOD of Units of MIL.
EMD may be deposited online through e-payment gateway, e-BG and submit the proof for e-payment / receipt / Transaction ID etc.
- c. The validity of bank guarantee shall be six months from bid submission date.
- d. The EMD of unsuccessful bidders shall be immediately returned after the acceptance of tender or bid validity period whichever is earlier.
- e. The EMD of successful bidder shall be returned only after receipt of security deposit.

10.6.17 Security deposit (SD):

- a. SD for individual works shall be for an amount equal to 5% of the contract amount.
- b. The SD shall be deposited in the form of Demand draft, Bankers cheque, fixed deposit receipt and Bank Guarantee from any of the Commercial Bank in the name of HOD of Units of MIL within 30 days after award of contract. SD may be deposited online through e-payment gateway and submit the proof for e-payment / receipt / Transaction ID etc.
- c. The validity of bank guarantee shall be such that it covers the warranty period plus two months.
- d. SD shall be returned after successful completion of warranty period/ defect liability period and furnishing no demand certificate by contractor.
- e. The factories/units of MIL where registration of contractors is valid, Relevant Civil Works Committee (CWC) may take a considered decision about EMD and SD.

10.7 Evaluation Criteria:

10.7.1 Evaluation criteria should be clearly mentioned in the tender documents.

10.7.2 Essential criteria:

- 10.7.2.1 Average Annual Turnover: Average Annual financial turnover for last 03 Years, ending 31st March of the previous financial year should be at least 30% of the estimated cost.
- 10.7.2.2 Earnest Money Deposit: EMD of required amount as per para 10.6.16 should be accompanied with tender. Criteria for exception of EMD should be clearly mentioned in the tender if any.
- 10.7.2.3 Goods & Services Tax Registration/ PAN: Firm should have GST Registration and PAN (Income tax).

10.7.2.4 Experience: Experience of having successfully completed similar works (definition of similar work should be clearly defined) (within India) during the last 7 years ending last day of month previous to the one in which applications are invited, should be either of the following.

A) Similar works:-

- a) Civil Engineering Works:-
 - i) Building Works.
 - ii) Roads repair works.
 - iii) Water supply & sewage Disposal.
 - iv) Runways and Pavements.
- b) Electrical Engineering works:-
 - i) Low Tension Electric Works 9 upto 1100 volts).
 - ii) High Tension Electric Works (Excluding 33KV)
 - iii) 33KV and extra High Voltage Installations.
- c) Electrical/Mechanical Engineering Services: -
 - i) Air Conditioning and Refrigeration (HVAC).
 - ii) Lifts & Escalators.
 - iii) Electrically Operated Cranes.
 - iv) Incinerators/Furnaces.
 - v) Mechanical Laundry.
 - vi) Fire Fighting & fire Detection System.
 - vii) Water & Effluent Treatment.

(a) Three similar works costing not less than Amount equal to 40% of the Estimated Cost

OR

(b) Two similar works costing not less than Amount equal to 50% of the Estimated Cost

OR

(c) One similar work costing not less than Amount equal to 80% of the Estimated Cost.

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 (7%) per annum or fraction thereof, calculated from the date of completion to the date of Bid opening

If the similar work furnished is from Private Organization, the same shall be supported with TDS and GST remittance pertaining to the similar works certified by chartered accountant.

10.7.2.5 **Registration:** Firm should be registered with any Govt. department/ PSUs/ MSME/ NSIC/MIL Units for Civil/ Electrical works in appropriate class & under suitable category including sub -categories (as per para 10.7.2.4 above). All MIL units shall ensure that enlisted firms participated in tender enquiry is qualifying the required/suitable class of work & enlistment must be renewed before expiry of the validity date mentioned in the enlistment letter. For enlistment of Firms all MIL units are to be follow the procedures as per MES Manual of Contract (Revised).

10.7.2.6 **License:** The Contractor shall ensure that the electrical works shall be carried out by the agency holding valid electrical Contractor's License of appropriate class issued by the State Electrical Inspectorate or engage an agency having valid Electrical works license of required class through proper agreement/MoU for execution of all Electrical works to the extent Rule 29 under Part III of central Electrical Authority Regulation, 2010.

10.7.3 Documents submitted along with tender by firms to establish his eligibility, should be clearly mentioned in the tender.

10.7.4 Factory/ respective CWC unit can add any other criteria or documents for tenders.

10.7.5 Evaluation criteria should not be changed after publication of tender.

10.8 Opening of tender will be done in e-procurement portal/CPMP. Officials of EO shall open the tenders after due date in case of technical bid and after CWC recommendation in case of price bid. Sufficient competition to be ensured while tender opening. Minimum three tenders shall be required to open the technical bid. After three extensions, technical bid(s) should be opened and appropriate decision will be taken by relevant CWC.

10.9 Evaluation of tender:

10.9.1 The tenders will be evaluated/ accepted by the Factory CWC as per the delegation of financial powers.

10.9.2 Technical Evaluation of tenders: After opening of tender, CWC brief shall be prepared by Engineering office. Member Secretary puts up brief to CWC for technical evaluation of tender as per TE conditions. (Appendix 'O').

10.9.3 After evaluation and recommendation of CWC, price bid of the technically acceptable offer will be opened immediately.

- 10.9.4 EO shall prepare CST and scrutinize the offers. If there is any freak rate* on higher side in the offer of lowest bidder, EO will seek rock bottom price through DO/GO. (*Freak Rate: Rates which are higher/lower than 50% of the estimated cost of the item).
- 10.9.5 The items having higher freak rates shall not be executed more than 105% of the estimated quantity. The items having lower freak rates shall not be executed less than 95% of the estimated quantity. The restrictions will be clearly mentioned in the work order issued.
- 10.9.6 EO shall ascertain the reasonability of rate and put the case to CWC. (Appendix 'P'). For items where rates quoted by L1 bidder is/are freakishly low, EO shall obtained confirmation from L1 bidder regarding "*they have understood the scope of work, Specification of material against these items and will maintain the quality and will use specified material, Make, workmanship etc*" against concerned items where rates is/are freakishly low.
- 10.9.7 Cases involving low freak rates should be examined to see if the tender as a whole is workable. Where the tender is found unworkable, the same may be rejected after taking recommendation from user section. The tender shall be critically examined by CWC. A suitable clause shall be incorporated in the tender document with regard to rejection of unworkable quote.
- 10.9.8 Where a tender involving freak rates is accepted for the reason that it is workable on the whole, care should be taken to acceptance of offer by CWC. Quantities shall be restricted as per para 10.9.5 above.
- 10.9.9 In case of a tie between the two lowest tenderers, where the quotations are reasonable and contractors are of equal capacity it is up to the Accepting officer to decide which one to accept and in this, he will be guided by the past records of the contractor. If however, the Accepting officer thinks it is hard to choose between the two lowest, he may send for the tenderers and after explaining to them that their tenders are on the same level, ask them to requote further discount on the spot confidentially. Care shall be exercised that the contractors are not allowed to consult each other.
- 10.9.10 While floating tenders a special clause, in bold, shall be incorporated stating that Bidders should quote the minimum quote. There would be no negotiation except with L1, if found necessary. This will enable bidders not to built cushion for negotiations and to give their best quote. Post tender negotiations are banned except in the case of negotiations with the Lowest Bidder (L1), if justifies. Negotiations should not be held as a matter of routine but shall be by exception only. Counter offer i.e., offering a target price will also amount to negotiation. Negotiation should be held only after obtaining approval of the respective CWC. If the response to the tender is inadequate or the result of negotiation is not satisfactory, the CWC shall carefully consider retendering. In case ring-tendering /

any other malpractice is suspected, retendering shall be resorted to and tender shall be issued to all prequalified agencies excluding the suspected agencies. The reasons for retendering shall be recorded by the committee.

- 10.10** Retendering of work: Retendering is not to be restored to in the normal course. However, retendering shall be considered in the exceptional cases. Decision of retendering will be done by CWC.

11.0 Execution of contract:

11.1 Acceptance of Tender

- 11.1.1 Based on acceptance of suitable offer by CWC, a letter for acceptance of work will be issued to contractor by EO.
- 11.1.2 Site-In-charge (SIC), Engineer-In-charge (EIC) and Technical Examiner (TE) shall be nominated by Sr.GM/GM/HOD on case to case basis.
- 11.1.3 Work order will be generated through e-procurement (except TC) and signed ideally by Member Secretary of CWC.
- 11.1.4 In case of term contract requisition should be raised by maintenance sections duly approved by SR.GM/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.

11.2 Contract Management:

11.2.1 Engineering Office:

- a. After placement of work order EO will intimate and forward LOA/WO to all concerned.
- b. EO will process the post audit of contract from finance & account section.
- c. EO will arrange for timely submission of Security deposit of individual contract.
- d. EO will arrange for progress report from EIC/SIC.

11.2.2 Maintenance/ User section:

- a. Delay in handing over the site to the contractor should be avoided.
- b. Maintenance/ User section will arrange for the handing over the site to the contractor as per the schedule.
- c. For general maintenance works, maintenance section (CE/EE) will be the user section.

11.2.3 Site-In-Charge (SIC):

- a. SIC will contact user section for hindrance free site for the contractor.
- b. SIC shall arrange for water and electricity to contractor as per the contract.

- c. SIC shall supervise the execution of work as per scope of work and maintain the daily progress of work in work diary.
- d. As per progress of work SIC shall take measurement of work done in association with contractor and make entry into measurement book (MB)/eMBs.
- e. As per progress of work SIC shall intimate the progress of the work to EO on monthly basis.
- f. SIC shall be JWM/CM of preferably same background pertaining to work requirement.

11.2.4 Engineer-In-Charge (EIC):

- a. EIC shall be responsible for overall supervising and administrating the contract and the works entrusted to him.
- b. EIC shall study the drawings/ designs prepared by concerned section/ officer and approved in Technical sanction.
- c. 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/eMBs.
- d. EIC shall ensure timely completion of work. EIC shall issue notice to contractor through EO as per the contract agreement.
- e. EIC shall be certifying the payments due to the contractor, valuing variations to the contract, recommending extension of time and valuing compensation events.

11.2.5 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.

11.2.6 Work diaries (WD):

WD will be maintained for all works except for term contract. (Appendix 'Q')

11.2.7 Measurement Book (MB):

- a. 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 'R').
- b. All the measurement will be recorded in the measurement book.
- c. For all Capital and Revenue civil work – MB/eMBs is to be maintained.

11.3 Deviations in contracts:

11.3.1 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.

11.3.2 The deviations, ordered on items of any individual trade included in the contract shall not exceed plus/ minus 25% of the value of that trade* in the contract as a whole, or, half the deviation limit, which is less except in the case of prime cost and

provisional items, where the parties to the contract may agree to different percentage for any particular trade item.

11.3.3 The deviations, ordered on items of any freak higher/ lower rates in the contract shall not exceed plus/ minus 5% of the value/quantity of the individual item. The deviations on the quantities of any freak higher/ lower rate items shall be done by relevant CWC after due diligence and proper justification from EIC/SIC/User section.

11.3.4 Deviations on a contract can be authorized only by the CFA, unless such powers have been delegated. If such powers are delegated, CFA will specify the general nature of work and the financial limit up to which such deviations may be ordered. Deviation limit shall be as per para 3.11. The final deviation order will be concurred by F&A section.

11.3.5 Deviation order will clearly state how the deviation will be measured and priced. Any additional time allowed will also be stated and contractor's agreement obtained.

11.3.6 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	20%
2.	Contract estimated to cost Rs. 10 lakhs and above	10%
Lump sum contracts based on Drawings and specifications.		
		10%

11.3.7 CFA in consultation with F&A 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 deductible 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.

11.3.8 For new items, the total cost of all the new items shall not exceed 10% of the deviation limit.

11.3.9 The Engineering officer must ensure that the status of L-1 does not change with amendment of contract or by ordering deviations.

11.3.10 In case Deviation exceeds the specified permissible limit then the respective Engg.-In-Charge & Site-In-Charge shall take prior approval of Competent Financial Authority before execution of said item/items, provided overall cost does not exceed 10% of Work order value.

11.3.11 Engg-In-Charge and Site-In-Charge should also ensure that with deviation of item/items, the status of L-1 remains L-1.

11.3.12 For deviation of Individual item within permissible limit - to be prepared and duly signed Site-In-Charge, Engr-In-charge during execution and submit the same along with final bill to EO for processing the bill.

11.3.13 For deviation of Individual item beyond permissible limit – to be prepared and duly signed Site-In-Charge, Engr-In-charge and Competent Financial Authority during execution and submit the same along with final bill to EO for processing the bill.

11.3.14 For deviation of contract as a whole exceeds beyond permissible limit - Approval of CFA/Higher authority is required.

* 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 M.E.S. Standard Schedule of Rates such as Excavation and Earthwork, Concrete, Wood Work & Joinery etc.

11.4 Payments:

11.4.1 The Running Account receipt payment (Appendix 'S') and Final payment (Appendix 'T') shall be processed after submission of the bill by contractor.

11.4.2 The bills shall be scrutinized by SIC to ensure that bill amount is matching with quantum of the work done.

11.4.3 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.

11.4.4 The Contractor shall be entitled to be paid during the progress of the Works 85 per cent of the value of any materials, which in the opinion of the Engineer-in-Charge, is in accordance with the Contract and which has reasonably been brought on the Site in connection therewith and are adequately stored and/or protected against damage by weather or other causes/protected from theft, but which have not at the time of the advance been incorporated in the Works.

11.4.5 The rate for material at site shall be taken as 85% of 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.

11.4.6 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.

11.4.7 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 F&A for checking and payment.

11.4.8 Timely payment of RA bills and TC bills:

- a. After submission of bill complete in all respect by the contractor, Maximum time period for processing the bills shall be 10 working days for SIC, EIC, TE, user & EO and 10 working days for F&A after receipt of the bill by F&A.
- b. For processing of payment of Final bills- Final bill to be processed on priority by EO civil and F&A.

11.5 Extension of completion period and Compensation for delay:

- 11.5.1 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.
- 11.5.2 Extension of completion period with or without compensation for delay shall be decided in relevant CWC.
- 11.5.3 If delay is attributed to the contractor then compensation of delay will be levied as under:
 - a. For Term contract: 1% of work order value per week subjected to maximum of 10%.
 - b. For Direct contract:
 1. CA amount is less than 10 lakhs: 1% per week on CA amount or 10% whichever is less.
 2. CA amount is between 10 to 20 lakhs: 1% per week on CA amount or 10% of CA amount or 1.5 lakhs whichever is lower.
 3. CA amount is greater than 20 lakhs: 1% per week on CA amount or 7.5% of CA amount or 7.5 lakhs whichever is lower.

11.6 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, even 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 Ordnance Factories/ units under MIL, 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 that in the event of cost of completion or after alternative arrangements have been finalized by the Ordnance Factories/ units of MIL 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 Ordnance Factories/ units under MIL.

If the cost of completion or after alternative arrangements have been finalized by the Ordnance Factories/ units under MIL to get the Works completed, estimated cost of completion (as certified by SIC and EIC) exceeds the moneys 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 Ordnance Factories/ units under MIL 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 Ordnance Factories/ units under MIL 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 Ordnance Factories/ units under MIL 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 Ordnance Factories/ units under MIL 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 Ordnance Factories/ units under MIL 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.

11.7 Settlement of disputes

- (i) Any dispute or difference whatsoever arising between the parties out of relating to the construction, earning, scope, operation or effect of this contract or the validity or the breach thereof shall be settled by bilateral discussions.
- (ii) Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract or the validity or the breach thereof, which cannot be settled amicably within sixty (60) days or such longer period as may be mutually agreed upon, from the date on which either party informs the other in writing by a notice that such dispute, disagreement or question exists, shall be settled by arbitration.
- (iii) The Arbitration Proceedings shall be conducted in India under the Indian Arbitration and Conciliation Act, 1996 (amended time to time) and the award of such Arbitration shall be enforceable in Indian Court only. The law applicable to an arbitration shall be Indian law. In case of Foreign Seller, Indian law of foreign law to be decided by contracting parties is applicable.
- (iv) For Indigenous Seller:

The arbitration tribunal shall be consisting of sole arbitrator. The sole arbitrator shall be nominated by the parties within ninety (90) days of the receipt of the notice mentioned above through mutual discussions and referred to CMD, Munitions India Ltd for appointment of the Sole Arbitrator with the mutual consent of the parties. The Arbitrator so appointed (with mutual consent) who had not dealt with matters to which this agreement relates and in course of his duties had not expressed views on all or any of the matter in disputes or differences. Failing which the arbitrator shall be nominated under the provision of Indian Arbitration and Conciliation Act, 1996 (amended time to time) at the request of either party or by dispute resolution institutions like Indian Council of Arbitration or ICADR, but said nomination would after consultation with both the parties. The Award of arbitration shall be final and binding on the parties to this contract.
- (v) For MSEs only:

The Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 provides parties to a dispute (where one of the parties is a Micro or Small Enterprise) to be referred to Micro and Small Enterprises Facilitation Council if the dispute is regarding any amount due under Section 17 of the MSMED Act, 2006. If a Micro or Small Enterprise, being a party to dispute, refers to the provisions in MSMED Act 2006, these provisions shall prevail over the Indian Arbitration and Conciliation Act, 1996.
- (vi) For CPSUs/DPSUs

In the event of any dispute or difference relating to the interpretation and application of the provisions of the contract, such dispute or difference shall be referred by either party for Arbitration to the sole Arbitrator in the Department

of Public Enterprises to be nominated by the Secretary to the Government of India in-Charge of the Department of Public Enterprises.

The Arbitration and Conciliation Act, 1996 (amended time to time) shall not be applicable to the disputes, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to be Law Secretary, Department of Legal Affairs, Ministry of Law & Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary/ Additional Secretary, when so authorized by the Law Secretary, whose decision shall bind the Parties finally and conclusively. The Parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator. If the Department of Public Enterprises fails to settle the dispute, the same will be referred to the Committee constituted by the Cabinet Secretariat.

12 Service Contract:

Sr.GM/GM/HOD may outsource the pre-tendering activities against a service contract for construction of production buildings and connected services, maintenance buildings where the approximate cost exceeds Rs 03 crore.

In case pre tendering activities are to be outsourced for any amenity bldgs., Prior approval from Director/MIL will be required.

The power delegated to Sr. GM/ GM to conclude service contract will be used for the above purpose and booked to the same code head.

The expenditure will be capitalized after the respective capital work is approved in ACP by MIL and executed at factory.

12.1 Pre Tendering activities are

- Preparation of Project report.
- Detailed Design & Engineering.
- Preparation of Architectural Plan, structural drawing, technical specifications, tender documents, bill of material etc.
- Preparation of detailed engineering drawings for internal & external electrical services, water service, water supply, sanitary sewerage, HVAC System etc. based on detailed architectural plans for building services.
- The amount of 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 service contract and CWC may take appropriate decision in case of variations.

12.2 Post Tendering activities are

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

The above pre/post tendering activities may be outsourced against service contract with the approval of Director/ MIL justifying the reasons.

- 12.3** Stability of buildings can be got checked by Govt. recognized autonomous Institutions/Government bodies/PSUs under delegated power of Sr.GM/GM.
- 12.4** Stability of buildings can be got checked by Pvt. Institutions/ Competent firms authorized by the state Government under delegated power of Director /MILCO.
- 12.5** Service contract can be concluded against competitive tender amongst reputed agencies undertaking similar jobs for testing of buildings for stability.
- 12.6** The Service Provider becomes entitled for payment of fees only on satisfactory completion of the entire services covered by the Agreement.
- 12.7** If payment in stages is contemplated, the 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 Service Provider ultimately fails to complete the entire service in terms of the Agreement, the fees already paid does not become infructuous (Note- the part service rendered which is complete in itself, could be made use of by the department). The service provider is eligible for stage payment which is to be mentioned in the tender document. Further, if and when item-wise stage payment is contemplated, a note should be added that 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.
- 12.8** If in any particular case, a Service Provider fails to render the services satisfactorily in terms of the Agreement, a report should be submitted to MILHQ promptly so that other units of MIL can also be suitably appraised.
- 12.9** While implementing above procedure, CVC guidelines (as amended from time to time) should be kept in view.
- 12.10** Selection of service contractor should be through two bid system.
- 12.11** Relevant TPC shall decide service contract.
- 12.12** Criteria for selection of 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 Sr.GM/GM/HOD based on the discussion in CWC.

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

13: Demolition of Buildings

13.1 When only demolition is to be carried out.

13.1.1 Technical examination Board will be constituted by CGM for condemnation or otherwise of proposed buildings.

13.1.2 CGM may engage service provider to examine the condition of building and recommend whether the building is beyond economical repair or otherwise.

13.2 Demolition of any building may be approved on a demolition statement (Appendix 'U'), as per delegated financial power of MIL.

13.2.1 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.

13.2.2 MSTC/GEM would be approached for demolition and disposal of buildings. If required, SrGM/GM/HOD can also resort to open tendering for demolition and disposal of buildings.

13.2.3 Reserve price would be fixed by Board of Officers as appointed by Sr.GM/GM/HOD.

13.2.4 After competitive bidding and offers received through MSTC, a TDC shall finalize the highest bidder for Disposal.

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

NOTE: i) This works manual will be effective from the date of issuance of this covering letter. This manual may also be preferably reviewed on regular interval.

ii) Any change/amendment/clarification related to this manual, may be issued with the concurrence of MIL/Fin and approval of MIL.

iii) It is advised that MES General condition of contract. Manual on Contract, MES Standard Schedule of Rate (SSR)-2020 shall be applicable till its revision under the order of Engineer-in-Chief/MES, New Delhi.

iv) Also, CPWD Works manual, CPWD DSR -2021 Shall be applicable till its revision under the order of Director General CPWD New Delhi.

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 Ordnance Factories Schools, if the same has not been provided so far and if the civil works of O.F. Schools is carried out through MIL units.
- 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.

Green Building guidelines for Ordnance Factories/ units under MIL

A green building is one which utilizes less water, optimizes energy efficiency, conserves natural resources, generates less waste and provides healthier spaces for occupants, as compared to a conventional building. It is needed now a days since bridging the gap between demand and supply of non-renewable and scarce resources through cost effective interventions.

i) A detailed note on GRIHA and how points are earned & evaluation process along with a list of buildings which are already being registered with GRIHA is available on websites at www.dpe.nic.in or www.grihaIndia.org

ii) Green Building Concept is to be incorporated in MIL as per guidelines issued by Govt. of India, Ministry of Heavy Industries & Public Enterprises / any other relevant Ministry from time to time.

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 OFs 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/liter).
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, covering lorry with cloth of raw material carrying vehicles 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.

Rain Water Harvesting

1. For new buildings/ establishments:

Ordinance Factories/ Units under MIL 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:

Ordinance Factories/ Units under MIL 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.

Statement of case

Name of Demand		:	
Demand No.		:	
Sl. No.	Statement		Detailed Description
a	Necessity of work	:	
b	Detailed Scope of Work	:	
C	Type of Construction	:	Authorized/Special
d	If authorized construction, <i>reference of Scale of accommodation/statutory regulation/any Govt. directives</i>	:	
e	Justification # <i>For special construction/special item of work if involved</i>	:	
f	Specification and quantum of works involved	:	
g	Need of consultancy if any with justification	:	
h	Proposed Location(Location/Layout drawing to be enclosed)	:	
i	Rough Indication Cost	:	
j	Target date for completion of the proposed works	:	
k	Any other relevant details	:	
	#Introduction of new practices is not permissible.		

Concurred by

Approved By

Name
Designation
Fy.Finance/Account Officer

Name
Designation
Head of Unit

Normal Periodical services

A)Non -Residential Building

Sr. No	Item	Periodicity	No. of coats	Buildings
1	Painting external surface with water proof Cement base paint	5 Years	2 coats	Production buildings/Explosive buildings, Work shops, Offices, Industrial canteen, Stores, Godowns, Labs, sanitary blocks, static tanks, perimeter wall with bastion, Security gates, GSR, ESR etc.
2	Painting external surface with Exterior emulsion weatherproof paint	5 years	2 coats	Administrative blocks, institutes, schools, auditoriums, family welfare centers, officers' messes and Inspection Bungalows.
3	Sy. Enamel painting on all wood work/iron work etc	5 years	2 coats	All Bldgs. (Except explosive Bldgs)
4	Painting over trusses/iron works/Rolling shutters etc with Aluminum paint	5 years	2 coats	All Bldgs. (Except explosive Bldgs)
5	Polishing over door/windows/cupboards etc.	5 years	2 coats	All Bldgs.(Except explosive Bldgs)
6	Painting internal surface with Oil bound distemper	5 years	2 coats	Non-Explosive Production buildings, Work shops, Offices, Industrial canteen, Labs, perimeter bastion, Officers messes (Group B, C) etc.
7	Painting internal surface with Fire resistance paint	5 years	2 coats	All explosive production/transit/Magazines/Explosive labs/Explosive storage buildings etc.
8	Painting internal surface with Lime wash	5 years	2 coats	Stores, Godowns, sanitary blocks, static tanks, Cook houses, garages, servant qtrs, etc.
9	Painting internal surface with Acrylic emulsion paint	5 years	2 coats	Officers Messes (Group A), Officers Institutes/Inspection Bungalows, education buildings of learning Institutes,

B)Residential Building/School

Sr. No	Item	Periodicity	No. of coats	Buildings
1	Painting external surface with water proof Cement base paint	5 Years	2 coats	Type- I,II,III,IV & Servant Qtrs, /School
2	Painting external surface with Exterior emulsion weatherproof paint	5 years	2 coats	Type-V,VI &VII etc.
3	Sy. Enamel painting on all wood work/iron work etc	5 years	2 coats	All Residential Bldgs./School
4	Painting over trusses/iron works/Rolling shutters etc with Aluminum paint	5 years	2 coats	All Residential Bldgs./School
5	Polishing over door/windows/cupboards etc.	5 years	2 coats	All Residential Bldgs.
6	Painting internal surface with Oil bound distemper	5 years	2 coats	Type- I,II,III,IV etc./School
7	Painting internal surface with Acrylic emulsion paint	5 years	2 coats	Type-V,VI &VII etc.
8	Painting internal surface with Lime wash	5 years	2 coats	Servant qtrs, etc.

c)Hospital Building

Sr. No	Item	Periodicity	No. of coats	Buildings
1	Painting external surface with water proof Cement base paint	5 Years	2 coats	All Buildings
2	Sy. Enamel painting on all wood work/iron work etc	4 years	2 coats	Hospital Wards, Operation theatres, specialist consulting rooms, MI Waiting rooms, Admin officers rooms in hospitals, Labour rooms, Dental Surgery and X-Ray, Pantry, Sanitary, Foul-linen stores, Cook house, and other bldgs./rooms where food is dealt with.
3	Painting internal	1 years	1	Hospital wards,operation theatres,

	surface with Oil bound distemper		coats	Specialist consulting rooms, MI Waiting, rooms, Admin officers rooms in hospitals, Labour rooms, Dental Surgery and X-Ray rooms.
4	Painting internal surface with Oil bound distemper	4 years	2 coats	All other rooms
5	Painting internal surface with Lime Wash (White /tinted)	½ Yeras	1 Coats	Pantries,cookhouse and other buildings or rooms where food is dealt with,bakeries,grain stores,foul-linen stores.mortuaries,laterines and urinals.
6	Painting internal surface with Lime Wash (White /tinted)	1 Yeras	1 Coats	Medical & QM stores.

1. The following may be carried out in Officers' quarters at every change of occupancy provided not less than one year has passed since the service in question was last carried out:

- i)Internal painting to the extent of one-fourth the normal periodical expenditure on internal painting.(Synthetic Enamel)
- ii)External painting to the extent of one-third the normal periodical expenditure on external painting.(Synthetic Enamel)
- iii)One coat of internal finish(Acrylic emulsion/Oil bound distemper)

2. The execution of periodical services in a building should, whenever possible, be synchronized 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.

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

Format for Engineer Appreciation

1. Board categories of works proposed-Married and / or OTM accommodation, workshop/storage facilities, roads, runways, utilities or any other construction facility.
2. Details of each category of works including size and nature of accommodation and scales and specifications proposed.
3. Type of constructions proposed-permanent / temporary, authorized special.
4. Brief details of preparatory works or services required-site surveys and development, roads and communications, external services etc. and the rough cost thereof.
5. Time required for preparatory works before commencement of the main works
6. In case of married accommodation
 - (i) total number to be provided for (rank-wise separately for single and married)
 - (ii) number to be accommodated by additions and alterations with purpose for which originally -do- constructed
 - (iii) number to be accommodated in new construction or in tent plinths or a combination of both (each indicated separately) with brief description i.e., permanent -do- semi-permanent, prefabricated or temporary
7.
 - (a) Type of construction for which A/As are to be done
 - (b) Brief description of original accommodation Permanent, semi-permanent or temporary
 - (c) Approximate area of buildings involved
 - (d) Brief description of A/A involved
8. Are any special items of works involved including those which depart from approved scales of accommodation? If so, reasons for deviation, approximate quantities such as square footage of floors and costs separately.
9. Any new or special technical facility works or accommodation beyond approved or known scales/specifications required for which detailed study and cost estimation has to be made? If so, details thereof.
10. Approximate storage, garage, etc., area to be provided (with brief description).
11. Approximate workshop area to be provided (with brief description).

12. Are any repairs required? If so, brief description of buildings to be repaired and nature of repairs required.
13. What external and internal services are required? Does any service exist? If so, extent thereof.
14. What repairs and/or additions and alterations are required to existing services?
15. Does the site involve any unduly high expenditure on any service(s)?
16. Feasible target date of completion
17. Time required for completion of various phases of the works in normal circumstances.
18. Is any consultancy, departmental or outside, required? If so, details thereof
19. Nature of Project management organization and staff required for planning and execution of the works.
20. Any other engineering / technical/management aspects of the project which require to be highlighted while planning, sanctioning or implementing the project.

Letter Head of the Unit

No:

Date: __/__/____

To,

Sub:

Ref:

Approval of _____, in consultation with ___/Finance, is hereby conveyed to convene Recee-cum-costing-cum-siting Board for finalizing scope of work _____ " at an estimated cost of Rs.____ lakhs (Rupees _____ lakhs _____ thousand only).

2.0 The Board shall be comprised of as under:

Presiding officer: HOD OF UNIT

Members Users' side*	Engineers' side**
1. Addl. GM/Stakeholder	1. Representative of Respective CE
2. Addl. GM/Engg	2. Planning team of Respective CE
3. Jt. GM/DGM (Maint)	3. CWE/SE, if exists
4. Jt. GM/DGM (Stakeholder1)	4. GE/EE, if exists
5. Jt. GM/DGM (Stakeholder2)	5. AGE/AEE, if exists
6. Safety Officer	-----
7. Security Officer	-----
Any other officer can be co-opted as considered necessary by Presiding officer	

* For unit other than factory, officer of equivalent rank would be member.

** In case of PWO, other than MES, Members from Engineers may be changed.

3.0 Date & time of holding the Board will be fixed in consultation with Engineers.

4.0 On finalization Board Proceeding along with the following documents will be scrutinized for further processing the proposal.

- a. Copy of convening order
- b. BP signed by B.O.O.
- c. Accommodation Statement Part I signed by user. (Appendix H)
- d. Accommodation Statement Part II signed by user & Engineer. (Appendix I)
- e. Layout Plan Sketch – 'P' signed by B.O.O. (Appendix J)
- f. Line Plan Sketch – 'Q' signed by B.O.O. (Appendix K)
- g. R.I.C. signed by C.F.A. with supporting annexures.
- h. Engineers' Appreciation signed by CEA.
- i. Copy of letters mentioned in BP, if any.
- j. Certificate regarding availability of water.
- k. Certificate regarding availability of electricity.
- l. Detail Statement of case for 'Special' items of work.
- m. Views of CFEEs, for explosive buildings or related works

(_____)

For _____

Copy to: All concerned

Accommodation Statement Part I signed by user

Station:		Remarks		(15)				
Name of Project:		Others		(14)				
Sr. N o.		Group 'C' & Equivalent		(13)				
		Group 'B' & Equivalent		(12)				
		Group 'A' Officers		JTS & Equivalent	(11)			
				STS & Equivalent	(10)			
				STS (NF) & Equivalent	(9)			
				JAG & Equivalent	(8)			
				SAG & equivalent	(7)			
				HAG & equivalent	(6)			
				Director/MIL	(5)			
				CMD/MIL	(4)			
		Authority		(3)				
Name of O.F./Unit of MIL				(2)				
1. Authorized as per WE/PE								
2. Percentage of authorization of married accommodation								
3. Authorized married additional accommodation (in units) of Quarters								
4. Married Accommodation (if restricted to 80% to 75%)								
Signature of User								
Name & Designation								

Accommodation Statement Part II signed by user & Engineer

Station:	Name of Work: Name of Project:	Remarks		(o)							Signature of Engineer	Name & Designation		
		Balance	Total		(n)									
			By new construction		(m)									
			By addition/alteration of buildings (present use to be indicated)		(l)									
			Deficient/Surplus		(k)									
		Present Status	Total		(j)									
			Under Construction		(i)									
			Under Demolition		(h)									
			Hired		(g)									
			Government		(f)									
		Accommodation required		(e)									Signature of User	Name & Designation
		Strength for which accommodation is required		(d)										
		Authority		(c)										
		Description of accommodation		(b)										
		Sr. No.	(a)	1.	2.	3.	4.	5.	6.	7.				

Layout Plan Sketch – 'P' signed by B.O.O.

Sketch: P (Layout Plan)			
Name of Presiding Officer			
Designation of Presiding Officer			
Users			Engineers
Member 1 Designatio			Member 1 Designatio
Member 2 Designatio			Member 2 Designatio
Member 3 Designatio			Member 3 Designatio
Member 4 Designatio			Member 4 Designatio
Member 5 Designati			
Name of Project			
Location			
Detail of Drawing			
Scale			
Drawing No. _____ Sheet No: _____			
Drawn By Checked by Approved by			

LOCATION OF EXECUTION OF WORK IS TO BE INDICATED

Prominent building/roads/Landmark may, preferably, be indicated

North direction is to be indicated

Layout Plan Sketch – 'Q' signed by B.O.O.

Sketch: Q(Plan/Elevation)			
Name of Presiding Officer			
Designation of Presiding Officer			
Users			Engineers
Member 1 Designatio			Member 1 Designatio
Member 2 Designatio			Member 2 Designatio
Member 3 Designatio			Member 3 Designatio
Member 4 Designatio			Member 4 Designatio
Member 5 Designati			
Name of Project			
Location			
Detail of Drawing			
Scale			
Drawing No. _____ Sheet No: _____			
Drawn By Checked by Approved by			

PLAN & ELEVATION IS TO BE PROVIDED

This is required for building construction, overhead tank/underground sump

Section drawing required for new road construction

DOCUMENTS WHICH ARE TO BE OBTAINED FROM EXECUTION
AGENCY

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 including structural 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.

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 Director/MIL 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 Director/MIL 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.

Appendix: O

MINUTES OF TEC/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/DSR without Market Variation.	:	₹/- Rupees (Amount in words)
	b) Market Variation + working in restricted area./ Cost index of CPWD	:	₹/- Rupees (Amount in words)
	c) Credit item	:	₹/- Rupees (Amount in words)
	d) Total Estimated Cost (a+b-c)	:	₹/- Rupees (Amount in words)
3.	Mode of Tender	:	Open tender through E-PORTAL (CPPP) (MIL)
4.	Bid Submission Starting Date & Time	:	
5.	Bid Submission Closing Date & Time	:	
6.	Corrigendum	:	
	Reason for postpone	:	
7.	Tender Opening Date & Time	:	
8.	Validity of offer	:	
	Extended validity of offer by firm	:	
	No of Firms Participated	:	
8.	Earnest Money Deposit (EMD) amount	:	₹ - -----/- Rupees (Amount in words)
	No. of Bids without EMD	:	

	No.of bids with EMD	Nos. ----- 1.M/s-----has submitted the full EMD amount in the form of -----. 2.M/s				
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	M/s	Yes/No Firms is register with`----- Class:-----For Civil/Elect.Work			
	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.					
	Sr. 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:					

	Sr. 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:					
UNDERTAKING: "We, the members of subject CWC/TEC-II, do hereby declare that none of the undersigned CWC-II member has any personal interest in the companies/ agencies participating in this tender process." (This undertaking is in compliance with CVC instruction No. 005/VGL/66 dated 09/12/2005.)						
<div style="text-align: right; margin-right: 100px;"> Name_____ (Post box symbol) (Member/Secy.) </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 30%;"> Name_____ (Post box symbol) (Member/ Engg.) </div> <div style="width: 30%;"> Name_____ (Post box symbol) (Member/ User) </div> <div style="width: 30%;"> Name_____ (Post box symbol) (Member/ Finance) </div> </div> <div style="text-align: center; margin-top: 20px;"> (Name_____ (Post box symbol) (Chairman)) </div>						

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

Appendix: P

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/DSR without Market Variation.	: `/- Rupees (Amount in words)
	b) Market Variation + working in restricted area/Cost index of CPWD.	: `/- Rupees (Amount in words)
	c) Credit item	: `/- Rupees (Amount in words)
	d) Total Estimated Cost (a+b-c)	: `/- Rupees (Amount in words)
3.	Mode of Tender	: Open tender through E-PORTAL(CPPP) (MIL)
4.	Bid Submission Starting Date & Time	:
5.	Bid Submission Closing Date & Time	:
6.	Corrigendum (if any)	:
7.	Tender Opening Date & time	:
	Validity of offer	:
	Extended validity of offer by firm	:
	No. of Firms Participated	:
8.	Earnest Money Deposit (EMD) amount	: ` -----/- Rupees (Amount in words)
	No. of firms without EMD	:
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	Remarks	
1		` _____	DD/MM/YYYY	L-1	
2				L-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					
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	
12	Details of the correspondence done with the L1 bidder to obtain clarification of freak rates.				
Details of clarification received from the lowest bidder against minus side freak rates and details revised rates offered by the lowest bidder (if any):					

PLUS SIDE						
Item No.	Description	Quantity	Total estimated rate based on SSR + MV %	Rate quoted by Lowest bidder	Revised Rate by lowest bidder	Revised rate above or below estimated rate
						____% above/ below
MINUS SIDE						
Firm has confirm that they have understood the nature of work against minus side freak items and assured that they will maintain the quality of work and material will be maintained as per Tender specification.						
Analysis of L-1 bidder after revision of rates:						
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
13	Deliberation/ discussion:					
14	Decision:					

--	--

UNDERTAKING:

"We, the members of subject CWC/TEC-II, do hereby declare that none of the undersigned member has any personal interest in the companies/ agencies participating in this tender process. (This undertaking is in compliance with CVC instruction No. 005/VGL/66 dated 09/12/2005.)"

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

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

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, equipment 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
authorized agent

Date Signature of Contractor or his

(Cover page)

MEASUREMENT BOOK**No.**

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

(Internal pages)

Page No. _____

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							

CONTRACTOR

ENGINEER-IN-CHARGE

SITE-IN-CHARGE

		Minus	Plus
		`	`
	Brought Forward		
	Charges for stores and materials vide Schedule 'B'		
	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:		
	-		
	1 st Running Account payment (Voucher No_____ dated _____)		
	2 nd Running Account payment (Voucher No_____ dated _____)		
	3 rd Running Account payment (Voucher No_____ dated _____)		
	4 th Running Account payment (Voucher No_____ dated _____)		
	5 th Running Account payment (Voucher No_____ dated _____)		
	6 th Running Account payment (Voucher No_____ dated _____)		
	7 th Running Account payment (Voucher No_____ dated _____)		
	8 th Running Account payment (Voucher No_____ dated _____)		
	9 th Running Account payment (Voucher No_____ dated _____)		
	10 th Running Account payment (Voucher No_____ dated _____)		
	Total Advance already paid		
(vii)	Net Amount Due to the Contractor		
	In Words:		

Final Bill**INDEX SHEET**

Name of Work :

C. A. No. :

Name of :

Contractor

Sr. 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 F&A	-			
7	Passed by F&A for payment	-			
8	Bill paid (Date of ECS)	-			

BILL FORWARDING SCHEDULE

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

Sl. 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 Engr-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 F&A)	
3	Have all the Blanks on page No 1 been completed. ?	
4	Has the bill been prepared in accordance with Appendix 1 of Registers for the abstract Nos shown accordingly on page No 1 of the bill?	
	NOTE: - This Applies to the lump sum contracts.	
5	Have RARS been taken into account and shown in the summary of the bill?	

SL. NO	REQUIREMENTS (Contd.)	REMARKS
6	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.	
7	STORES STATEMENT <ul style="list-style-type: none"> a) Have stores shown in Sch 'B' been issued & accounted for? If not give reasons. b) Have stores other than those mentioned in Sch 'B' been issued (either in lieu of or additional to) if so, have necessary amendments to contract been made? Have all USRs been reconciled with the statement of stores and transfer vouchers if any attached. c) Have all over issue of stores been returned or accounted for as per contract conditions. 	
8	RECOVERY OF WATER <ul style="list-style-type: none"> 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? 	
9	If the work was not completed within the contract or extended period, has compensation due from the contractor been included in the bill?	
10	Has the deviation limit been extended? If exceeded, has an amendment to contract been issued?	
11	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 F&A to be certified by SIC, EIC and TE.	- Yes
12	Have the DOs/ Amendments been sent to F&A soon after theses have been approved and accepted by the parties concerned?	- Yes
13	Confirm that payment is made through ECS/ crossed cheque in the name of the contractor.	
14	Has the contractor informed of the amendments to the bill at every stage and his concurrence to the amendments obtained?	
15	Has the duplicate copy of the bill and enclosures been amended to agree with the original?	

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				
			Schedule 'A' Rates (')				
						Minus	Plus
Amount of Bill at Schedule 'A' Rates					....	
Add		Contract			....	
Deduct		Percentage.....%					
Gross Value of Work					....	
Deduct total charges against the contractor in respect of					....	
1		Stores/ Material supplied			....	
2		Water			....	
3		T & P			....	
4		Transport			....	
5		Compensation			....	
6		Rent			....	
7		Schedule of credit			....	
8						
9						
10						
			TOTAL CHARGES		....	
			NET VALUE OF WORK		....	
						Minus	Plus
			Brought forward				

	(b)	Statement showing quantities of all stores/ material issued to the contractor and their disposal, is attached. All unused Govt. stores under Schedule 'B' have been returned by the contractor. Recovery for the over issued stores have been effected at higher rates/ stock book rates.									
	(c)	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)	Issued of all stores, as per statement attached (Whether charged to the contractor or direct) to the work executed. Recoveries for over issued stores have been correctly made at the higher of market rates/ stock book rates.									
	(d)	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 prices charged are either in accordance with the contract rates or approved Special Rates Bill passed for payment as correct. (Vide observations attached)						
	Recovered in this Bill										
	Total Recovered										
Date:					Signature of Unit. Accountant.						
FOR USE IN F&A											
VI	Passed for Rs. _____										

(To be stated both in words and figures)									
Auditor			Supdt.			D.C.D.A.			
Date _____			Date _____			Date _____			
Delete as required									
VII	Received 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									
					Signature of Contractor				
Date :					Witness				
Date :					Address				
VIII	FOR USE BY DISBURSING OFFICER								
	Cheque No. _____ dated _____ for Rs. _____ issued in favor of _____ _____ Treasury.								
					Signature of Disbursing Officer				
IX	Entered in construction Account								
	[Folio No. _____] and Contractor Ledger								
	[Folio No. _____]								
Signature of Engineer- in- Charge					Signature of Unit Accountant				
Date : _____					Date : _____				
X		Technically Examined							

ABSTRACT OF QUANTITIES AND PRICES

C A N O :

Name of Work :

Name of Contractor :

Measurement Book No:

[illegible]

DEVIATION ORDER

NAME OF WORK :-

CONTRACT AGREEMENT No:-

Name of Contractor:

The details of deviations occurred in the tendered quantities during execution of work for various items are as follows

Item No	M.B. Page No	Unit	Estimated Quantity	Executed Quantity	Deviation		Remarks
					Plus	Minus	
Schedule of credit-							

Certified that the above stated deviations are within the permissible limits.

ENGINEER-IN-CHARGE

SITE-IN-CHARGE

CFA or his authorized officer

STATEMENT OF STORE REQUIRED

Name of work-

Name of contractor-

Sl No	Description of stores (as in Sch. 'B' or subsequent authority)	Reference to Sch. 'B' Serial item or subsequent authority	Estimated quantity (allowing for wastage on whole contract WOs & DOs)	Actually Issued	Incorporated in the work including wastage	Rate of recovery	Unit for recovery	Total recovery in respect of stores	Remarks (such as accounting of difference in column 5 & 6 reason for wastage above normal limits etc.)
1	2	3	4	5	6	7	8	9	10
Recovery on account containers vide Appendix 'C' attached						Total of column No. 9 Rs.			

Grand Total Rs.....

In Words Say Rs.

Signature of contractor

Engineer in charge

DETAILS IN SUPPORT OF COL. 5 STORES STATEMENT

Total quantity of stores issued to Contractor M/s

Under C A No 0

(Ref. Col 5 of Statement of Stores).

U. S. R. No. & Date	Cement in Bgs					
1	2	3	4	5	6	7
Total						
Returned to OF Unit						
Total Returned						
Net Issue						

(Signature of Contractor)

Engineer - in - charge

Date

Date

WATER RECOVERY STATEMENT

CA 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 Rs.
Work done.

Contractor

Engineer-in-Charge.

CERTIFICATE

CA 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. _____ Dt. _____ 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

Statement showing details of Demolition and disposal of material

Description of Materials	Quality	Incorporated on work	Brought to stock	Sold	Otherwise disposed of	Amount released by Sale (Col 1-5)	Remarks
1	2	3	4	5	6	7	8

Date _____

Engineer - in - Charge

Completion Certificate

CA 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 OF/ unit of MIL.

Date:

Engineer In- Charge

FORMAT FOR DEMOLITION STATEMENT

[illegible]

Signature	Signature
F&A	HOD of Unit

PRE-CONTRACT INTEGRITY PACT**(For cases valuing above Rs. 5 Cr)****General**

1. Whereas the GM/Sr.GM, hereinafter referred to as the Buyer and the first party, proposes to procure (Name of the Store/ Equipment), hereinafter referred to as Defence Stores, and M/s _____, represented by, Mr/ Mrs _____, Chief Executive Officer (which term, unless expressly indicated by the contract, shall be deemed to include its successors and its assignees), hereinafter referred to as the Bidder/Seller and the second party, is willing to offer/has offered the stores.

2. Whereas the Bidder is a private company/public company/partnership/registered export agency, constituted in accordance with the relevant law in the matter and the Buyer is Munitions India Limited (MIL) or any of its constituent units, a PSU under Ministry of Defence, Government of India.

Objectives

3. Now, therefore, the Buyer and the Bidder agree to enter into this pre-contract agreement, hereinafter referred to as Integrity Pact, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence / unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

3.1 Enabling the Buyer to obtain the desired defence stores at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

3.2 Enabling bidders to abstain from bribing or any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also refrain from bribing and other corrupt practices and the Buyer will commit to prevent corruption, in any form, by their officials by following transparent procedures.

Commitments of the Buyer

4. The Buyer Commits itself to the following:-

4.1 The Buyer undertakes that no official of the Buyer, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the Bidder, either for themselves or for any person, organization or

third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the Contract.

4.2 The Buyer will, during the pre-contract stage, treat all Bidders alike, and will provide to all Bidders the same information and will not provide any such information to any particular Bidder which could afford an advantage to that particular Bidder in comparison to other Bidders.

4.3 All the officials of the Buyer will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

5. In case of any such preceding misconduct on the part of such official(s) is reported by the Bidder to the Buyer with full and verifiable facts and the same is prima facie found to be correct by the Buyer, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the Buyer and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the Buyer the proceedings under the contract would not be stalled.

Commitments of Bidders

6. The Bidder commits himself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of his bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commits himself to the following:-

6.1 The Bidder will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Buyer, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the Contract.

6.2 The Bidder further undertakes that he has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favor, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Buyer or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the Contract or any other Contract with the Government for showing or forbearing to show favour or disfavor to any person in relation to the Contractor any other Contract with the Government.

6.3 The Bidder will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

6.4 The Bidder will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

6.5 The Bidder further confirms and declares to the Buyer that the Bidder is the original manufacturer/integrator/ authorized government sponsored export entity of the Defence stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Buyer or any of its functionaries, whether officially or unofficially to the award of the contract to the Bidder, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

6.6 The Bidder, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the Buyer or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

6.7 The Bidder shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the Buyer as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder also undertakes to exercise due and adequate care lest any such information is divulged.

6.8 The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.

6.9 The Bidder shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

7. Previous Transgression

7.1 The Bidder declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India, that could justify bidder's exclusion from the tender process.

7.2 If the Bidder makes incorrect statement on this subject, Bidder can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

8. Earnest Money/Security Deposit

8.1. All procurement cases above Rs. 5 Cr., Integrity Pact is required to be executed without any additional Financial Guarantee. The EMD/SD/PBG required to be submitted by the vendor as prescribed in the respective Procurement Manual shall only act as the financial guarantee for the IP.

8.2. The validity of the IP will be the validity of the EMD/SD/PBG or the complete conclusion of contractual obligations to complete satisfaction of both the bidder and the buyer, whichever is later. In case there are more than one bidder, the Earnest Money/Security Deposit shall be refunded by the buyer to those bidder(s) whose bid does not qualify (do not qualify) after the stages of TEC/ TPC, as constituted by the Buyer, immediately after a recommendation is made by the TEC/TPC on bid(s) after an evaluation.

8.3 In the case of successful bidder a clause would also be incorporated in the Article pertaining to Performance Bond in the Purchase Contract that the provisions of Sanctions for Violation shall be applicable for forfeiture of Performance Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

8.4 The provisions regarding Sanctions for Violation in Integrity Pact include forfeiture of Performance Bond in case of a decision by the Buyer to forfeit the same without assigning any reason for imposing sanction for violation of Integrity Pact.

8.5 No interest shall be payable by the Buyer to the Bidder(s) on Earnest Money/Security Deposit for the period of its currency.

9. Company Code of Conduct

9.1 Bidders are also advised to have a company code of conduct (clearly rejecting the use of bribes and other unethical behavior) and a compliance program for the implementation of the code of conduct throughout the company.

10. Sanctions for Violation

10.1 Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act 1988 or any other act enacted for the prevention of corruption shall entitle the Buyer to take all or any one of the following actions, wherever required:-

(i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder(s) would continue.

(ii) The Earnest Money/Security Deposit/Performance Bond shall stand forfeited either fully or partially, as decided by the Buyer and the Buyer shall not be required to assign any reason therefore.

(iii) To immediately cancel the contract, if already signed, without giving any compensation to the Bidder.

(iv) To recover all sums already paid by the Buyer, and in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India (or Base Rate of State Bank of India in the absence of Prime Lending Rate) and in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the Buyer in connection with any other contract for any other Defence stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

(v) To encash the advance bank guarantee and performance-cum-warranty bond, if furnished by the Bidder, in order to recover the payments, already made by the Buyer, along with interest.

(vi) To cancel all or any other Contracts with the Bidder.

(vii) To ban the Bidder from entering into any bid from the Government of India for a minimum period of five years and not more than ten years at the discretion of the Buyer.

(viii) To recover all sums paid in violation of this Pact by Bidder(s) to any middleman or agent or broker with a view to securing the contract.

(ix) If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is closely related to any of the officers of the Buyer, or alternatively, if any close relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender. Any failure to disclose the interest involved shall entitle the Buyer to rescind the contract without payment of any compensation to the Bidder.

The term „close relative“ for this purpose would mean spouse whether residing with the Government servant or not, but not include a spouse separated from the Government servant by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Government servant, but does not include a child or step child who is no longer in any way dependent upon the Government servant or of whose custody the Government servant has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Government servant or to the Government servant's wife or husband and wholly dependent upon Government servant.

(x) The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Buyer, and if he does so, the Buyer shall be entitled forthwith to rescind the contract and all other contracts with the Bidder. The Bidder shall be liable to pay compensation for any loss or damage to the Buyer resulting from such rescission and the Buyer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.

(xi) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the Buyer with the Bidder, the same shall not be opened.

10.2 The decision of the Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and binding on the Bidder, however, the Bidder can approach the monitor(s) appointed for the purposes of this Pact.

11. Fall Clause

11.1 The Bidder undertakes that he has not supplied/is not supplying the similar systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India and if it is found at any stage that the similar system or sub-system was supplied by the Bidder to any other Ministry/Department of the Government of India at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the Bidder to the Buyer, if the contract has already been concluded.

11.2 The Bidder shall strive to accord the most favoured customer treatment to the Buyer in respect of all matters pertaining to the present case.

12. Independent Monitors

12.1 The Buyer has appointed Independent Monitor(s) for this Pact in consultation with the Central Vigilance Commission (Names and Addresses of the Monitors to be given):

12.2 As soon as the Monitor notices, or believes to notice, a violation of this Pact, he will so inform the GM/Sr.GM.

13. Examination of Books of Accounts

In case of any allegation of violation of any provisions of this Integrity Pact or payment of commission, the Buyer or its agencies shall be entitled to examine the Books of Accounts of the Bidder and the Bidder shall provide necessary information of the relevant financial documents in English and shall extend all possible help for the purpose of such examination.

14. Law and Place of Jurisdiction

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the Buyer i.e. the nearest location from the seat of the Buyer of a High Court or a Bench of High Court.

15. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

16. Validity

16.1 The validity of this Integrity Pact shall be from date of its signing and will remain valid up to the validity of the PBG or the complete conclusion of contractual obligations to complete satisfaction of both the Buyer and the Bidder/Seller, whichever is later.

16.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

17. The Parties hereby sign this Integrity Pact at _____ on _____

BUYER
()

Designation:

Ordinance Factory_____

Witness

1. _____

2. _____

BIDDER
()

Chief Executive Officer

Name of Firm:_____

Witness

1. _____

2. _____