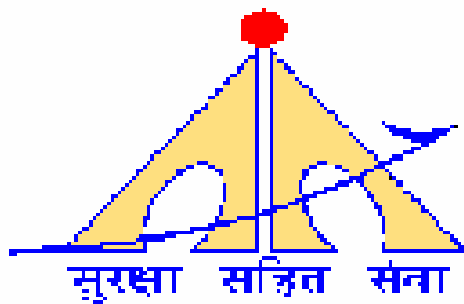


**AIRPORTS AUTHORITY OF INDIA**

**DIRECTORATE OF ENGINEERING**



**WORKS MANUAL**



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## **FOREWORD**

I am glad to know that Directorate of Engineering has come out with a Works Manual.

The field of construction is dynamic and is undergoing fast changes both in terms of technology and in contract management techniques. This manual is expected to help in streamlining the procedures for project implementation as well as day to day maintenance. It will also ensure standardization throughout AAI.

This manual is one more step in the path of technical procedural excellence to which AAI is incessantly and morally dedicated.

[ Dr. K. Ramalingam ]

## PREFACE

The works manual presently being followed was prepared and approved long back. After that many changes have taken place which have been circulated by Technical Instructions. In present scenario, it is necessary that there should be a comprehensive works manual for engineering works in AAI.

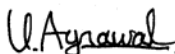
The draft Works Manual was prepared by a committee of engineers for a uniform procedure for carrying out engineering works in AAI based on CPWD Manual and Govt. directions/vigilance instructions received from time to time and has been discussed extensively and modified in consultation with Directorate of Finance and Directorate of Law.

AAI Board in its 108<sup>th</sup> Board Meeting approved the Work Manual. Main features/changes have been circulated vide letter no. AAI/Work Manual/Engg (C)/80 dated 10.04.2007.

The works manual covers the following chapter:-

- Chapter – I : General (General Explanation)
- Chapter – II : Duties and Responsibilities of Engineering Officers
- Chapter – III : Works
- Chapter – IV : Works Account
- Chapter – V : Contracts
- Chapter – VI : Engineering Establishment

Every effort has been made earnestly to incorporate all the changes in the Works Manual. However, if any discrepancy is found in the manual may be brought to my personal notice.

  
(V. P. Agrawal)  
Member (Planning)

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## CHAPTER-I

### GENERAL

#### SECTION 1: GENERAL EXPLANATIONS

- 1.1 This instrument of Works Manual for Engineering Directorate shall come into force in Airports Authority of India from the date it is approved by the Authority.
  - 1.2 All the rules, regulations, instructions and procedures specified in this Manual are subject to subsequent orders and instructions issued by Airports Authority of India and should be exercised by the officers within the financial powers delegated from time to time through the instrument of Delegation of Financial Powers. In the absence of any guidelines or procedures in this Manual on any subject, the directions/technical instructions issued by the E.D. (Engg.)/Member (Planning) should be followed.
    - 1.2.1 This works manual covers all relevant technical instructions issued from Directorate of Engg (Non Metro Airport) upto Technical Instruction Nos. 130 and all relevant technical circulars issued from Department of Engg (Metro Airport) upto Technical Circular no. 1/2006 dated 31.03.2006.
  - 1.3.1 In case of difference between Delegation of Powers and this Manual, the Delegation of Powers shall prevail over the provision of this Manual.
  - 1.3.2 Central Vigilance Commission's guidelines issued from time to time will come into effect after the instructions are issued by AAI Corporate Headquarter in this regard.
  - 1.4 In case any modifications/ alterations or withdrawal of any rules herein are required such powers should be vested with Chairman, AAI.
  - 1.5 The Project In-charge may exercise any or all the powers vested in any designation below him.
  - 1.6 On grounds of exigencies of work and/or other administrative consideration any Senior Engineering Officer may exercise any or all the powers vested with officers subordinate to him.
  - 1.7 For repetitive type of jobs/works or any other operational work which are likely to occur at certain point of time, a select list of contractors/agencies may be drawn up region wise and got approved by the RED (Non-Metro Airports)/APD (Metro Airports)/ED (Engg.) GM Engg. Such lists should be prepared through press advertisement by giving wide publicity and should be in operation for the period of two years.
  - 1.8 The constitution of various Boards and the Committees should be as envisaged from time to time in the Delegation of Financial Powers.
-



1.9 Following terms where ever used shall mean:-

Junior Engineer (JE)	: Senior Assistant (SA)/ Senior Superintendent (SS)/Junior Executive (Jr. Ex.) (Engg)
Assistant Engineer(AE)/Assistant Executive Engineer (AEE) / Sub Divisional Officer	: Assistant Manager / Manager (Engg)
Executive Engineer(EE)/Divisional Officer/Engg-in-charge	: Senior Manager(SM) / Senior Manager (Selection Grade)SM(SG)/ Assistant General Manager (Asstt. GM) Engg
Superintending Engineer (SE)	: Deputy General Manager (DGM)/Joint General Manager (JGM) Engg.
Additional Chief Engineer (ACE)	: General Manager (GM) Engg
Chief Engineer (CE)	: Executive Director (Engg)
Circle Office	: O/o DGM/JGM (Engg)
Division	: O/o SM/SM(SG)/Asstt GM (Engg)
Sub Division/Sub Divisional Office	: O/o Asstt. Mgr/Mgr (Engg)



## CHAPTER-II

### DUTIES AND RESPONSIBILITIES OF ENGINEERING OFFICERS

Duties and responsibilities of engineering officers of different levels in A.A.I. should be as mentioned hereinafter. However, these are not exhaustive. Engineering Officers at different levels should be responsible to carryout duties and tasks assigned from time to time as per the requirements and directions issued by the Authority.



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**SECTION 2: SR. ASSISTANT (SA) / SR. SUPERINTENDENT (SS) / JR. EXECUTIVE ENGG(Jr. EXE) (CIVIL/ELECTRICAL)**

1. To collect and furnish Site Parameters, Measurement Details and field data;
2. Preparation of Preliminary as well as Detailed Estimate for maintenance and original works;
3. Preparation of Market Rate Analysis including collection of Market Rates;
4. To make structural designs of Simple Structures, prepare Drawings, Sketch etc. as required;
5. To prepare detailed estimate and related required documents for accord of Technical Sanction and to prepare Draft NIT for approval of competent authority;
6. To plan and ensure that the works are executed strictly as per technically sanctioned detailed estimate and approved design etc;
7. To exercise extensive day to day supervision and quality control of various works executed by contractors, suppliers and departmental labours as per specifications;
8. To maintain all records and register of works as required as per manual, specification and contract;
9. To supervise and conduct various field tests/lab tests at work site and exercise control on quality of work as per standard specifications;
10. To record measurements correctly in Measurement Book and Standard Measurement Book of various items of works executed by contractors, supplies made by suppliers etc;
11. To prepare contractor's and supplier's bills;
12. To initiate timely action for taking approval of proposed deviations, substitute or extra items;
13. To interact and co-ordinate with users, concerned officer or the residents as applicable, where work is being executed;
14. Preparation and maintaining Site Order Book, Rainfall Data and Hindrance Register, Cement Register, Bitumen Register, Test Result Registers and all other records / documents stipulated in the contract etc.;
15. To exercise day to day administrative and technical control on the departmental W.C. staff and labour;
16. To maintain Stores and Stores Records under his charge;



17. To ensure regular inspection of Structures and Installations for proper maintenance and to maintain a Inspection Log Book;
18. To carry out preventive maintenance and taking timely, prompt and effective actions, as required, to ensure that essential services and installations are properly maintained at the Airport;
19. To submit a weekly/fortnightly/monthly physical and financial progress reports as specified to AM/M/SM/SM(SG) /Asstt. GM (Engg) wherever working independently;
20. To prepare Survey Report for unserviceable materials on yearly basis;
21. To assist AM/M/SM/SM(SG) (Engg.)/Asstt. GM in all technical/ administrative works in RHQ/CHQ/Planning office;
22. Any other duties assigned by senior officers from time to time.

**SECTION 3: ASSISTANT MANAGER (AM)/MANAGER (M)ENGG. (CIVIL/  
ELECTRICAL)**

Should carryout all the duties and responsibilities of SA/SS/Jr.Exe, if SA/SS/Jr. Exe is not posted under him in additions to his own duties and responsibilities. Whenever SA/SS/Jr. Exe is posted. Assistant Manager/Manager shall verify the works carried out by SA/SS/Jr. Exe under his jurisdiction, in addition to the following: -

1. To check the Soil Report, Site Parameters, Field Data etc;
2. Checking of Preliminary as well as Detailed Estimate for maintenance and original works and onward submission to higher authority;
3. To collect and verify the Market Rates and Market Rate Analysis for items of works;
4. Checking and finalisation of Structural Design, Drawings, Sketch etc;
5. To ensure correctness of documents for approval of technical sanction and Draft NIT upto the delegated power of SM/SM(SG) / Asstt. GM, Engg.(Civil/Electrical).
6. To prepare required documents for approval of Technical Sanction and Draft NIT to be approved by DGM and above;
7. To plan and ensure that work is executed strictly as per technically sanctioned estimate, approved design and specification etc;
8. To exercise control on supervision and quality control of various works executed on regular basis;
9. To verify all records and registers of works as per work specifications, works manuals etc;
10. To verify and check at least 50% of Field Tests, Lab. Tests at works site and exercise control on quality of work;
11. To test check the measurements recorded in Measurement Book by SA/SS/Jr. Ex Engg as specified in Works Manual;
12. To test check the measurement upto 100% recorded in standard Measurement Book.
13. To record measurement of items in Measurement Book as specified in the Works Manual;
14. To verify the contractor's and supplier's bills and submit for pass and payment;



15. To compile and put up all proposals regarding substitute deviations items and extra items to his superiors for necessary approval alongwith supporting documents;
16. To interact and co-ordinate with concerned users on works in operational area and vital installations to ensure its proper maintenance all the time;
17. To ensure that Site Order Book, Hindrance Register, Rainfall Data, Cement Register, Bitumen Register etc. are maintained for all maintenance and original works and to check these records on regular basis;
18. To exercise administrative control on departmental workers wherever SM/SM(SG) Engg not posted;
19. To verify Stores Record including yearly stock taking;
20. To take timely action for preparation of Survey Report and taking approval of Competent Authority;
21. To ensure regular inspection of structures, installations and taking timely and effective actions for preventive and regular maintenance as required;
22. To submit weekly/fortnightly/monthly/quarterly reports, MIS etc. as specified;
23. Should be overall responsible for the correctness of records, measurement etc. recorded by his subordinates;
24. To maintain Building Register and Land Register under his charge;
25. To exercise powers judiciously as delegated in Delegation of Powers and Technical Instructions issued by Management;
26. To provide technical support and assist in all technical/administrative works to his superiors whenever working in RHQ/CHQ/Planning office;
27. To act as representative of Engineer-in-Charge for effective contract implementation;
28. To approve extra item/substituted items, deviation items statement within his powers and initiate timely action for obtaining approval of higher authorities as and when perceived.
29. Any other duties assigned by Senior Officer from time to time.

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**SECTION 4: SENIOR MANAGER (SM)/SENIOR MANAGER-SELECTION GRADE (SM-SG)ENGG. (CIVIL/ELECTRICAL)**

1. Finalisation of Preliminary and Detailed Estimate;
2. Finalisation of Justification Statement before opening of Tender including approval of Market Rate Analysis for Items;
3. To accord of technical sanction and to approve draft notice inviting tender (NIT) as per Delegation of Power. Beyond his power shall submit the case for approval of higher authorities;
4. Shall have overall responsibility for correctness of bill of contractor and supplier and maintaining necessary record thereof and propose the bills to Finance Directorate for pass and payment;
5. Signing of Contract Agreement and maintaining all original Agreements;
6. To function as Engineer-in-Charge of all the Contracts, Work Orders and Supply Orders of contract value up to Rs. 100.00 crores each to ensure implementation of Contract provision;
7. To take all the necessary actions in time for effective contract management;
8. To constantly supervise the works for ensuring quality and timely completion of works;
9. To take timely action regarding contract management as per relevant clauses of contract agreement;
10. To carryout test check of measurements and quality control as specified in Works Manual;
11. To project yearly budget for the works under his jurisdiction;
12. To effectively defend arbitration proceedings;
13. To prepare replies of CTE's observations within the stipulated time;
14. To submit physical and financial progress reports as per prescribed formats and compilation of MIS reports;
15. To initiate timely and prompt action for obtaining revised A/A & E/S;
16. To approve extra items/substituted items, deviation items statement with in his power and timely action for obtaining approval of higher authorities as and when required;



17. To countersign the completion certificate recorded by his junior officer for works upto T/S power of SM/SM(SG). Beyond this he/she shall, after doing his/her signature, forward to DGM/JGM for countersignature;
18. To function as head of Division and to discharge all the duties and responsibilities as prescribed in Works Manual and to have overall responsibilities of quality control, overall corrections of measurement and payment for the works executed;
19. To be fully responsible for maintaining necessary accounts and record thereof related to all the works/supplies executed under his jurisdiction;
20. To ensure that all the records/registers to be maintained for works are duly maintained;
21. To provide technical support and assistance in all technical/administrative works to his superiors whenever working RHQ/CHQ/Planning office;
22. To exercise powers judiciously as delegated in Delegation of Powers, Works Manual and Technical Instructions issued by Management;
23. Any other duties assigned by Senior Officer Form time to time.



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**SECTION 5: DY. GENERAL MANAGER (DGM)/JOINT GENERAL MANAGER (JGM) [ENGG.] (CIVIL/ELECT.)**

1. DGM/JGM will be overall in-charge for proper administration of “Work Contract” and shall ensure that all provisions of contract agreement are correctly implemented;
2. To accord technical sanction and approval of Draft NIT as per Delegation of Power. Beyond his power, shall submit the case for approval of higher authorities;
3. To project yearly budget for all maintenance and original works under his jurisdiction;
4. Should be responsible for utilisation of funds provided in the approved budget;
5. To assist and guide Engineer-in-Charge in processing and defending the arbitration proceedings;
6. To finalise replies to CTE’s observations and submit the same within the stipulated time;
7. To obtain revised A/A & E/S, wherever necessary;
8. Approval of extra items/substituted items and deviation items statement within his own power as per Delegation of Powers and obtaining approval of higher authorities as and when required;
9. Standardisation of procedures;
10. To function as Project-In-charge whenever assigned the responsibility;
11. To ensure that management policies, overall agreed programmes and time schedules are implemented;
12. Monitoring the projects, holding regular follow up meetings to review the progress and taking steps to remove the causes of hold-up for projects;
13. Follow-up observations of quality control and those raised by technical and financial audit;
14. To exercise overall technical and administrative controls of all the engineering personnel at all the field units and airports within his jurisdiction;
15. To exercise effective budgetary control;
16. To perform duties and responsibilities as prescribed in Works Manual and Delegation of Powers;
17. To issue completion certificate for the works costing more than technical sanction limit of SM/SM(SG)/Asstt. GM (Engg.);



18. To provide technical support and assistance in all technical and administrative works to his superiors whenever working in RHQ/CHQ/Planning office;
19. Any other duties assigned from time to time by Senior Officers.



**SECTION 6: GENERAL MANAGER (GM) ENGG. (CIVIL/ELECT.)**

1. General Manager shall function as head of unit and shall provide all technical support and assist in all technical/administrative work to ED (Engg.), Regional Executive Director (NON-METRO AIRPORTS)) and Airport Director (METRO AIRPORT);
2. Shall plan new projects right from the conceptual stage;
3. Monitoring the projects, periodic follow-up, meeting to review the progress and taking steps to remove causes of hold-ups for projects;
4. Budget formulations, controls and to obtain approval for re appropriation of funds;
5. Approvals of works under contingencies – for works costing upto technical sanction power of GM and below;
6. To issue technical and administrative directions to all field units including standardisation of procedures;
7. To exercise overall technical and administrative control of all the engineering personnel within his jurisdiction;
8. To decide engineering manpower requirement and its deployment;
9. To advise management on all the matter of transfer, promotion and recruitment and disciplinary proceedings of engineering manpower;
10. To arrange training programme and course for engineering personnel;
11. To accord T/S and approval of draft NIT as per Delegation of Powers. Beyond his powers shall submit the case for approval of higher authorities;
12. To perform duties and responsibilities as prescribed in works manual and delegation of powers [DOP].
13. Any other duties assigned from time to time by Senior Officers.
14. To act as Engineer-in-charge in respect of individual-contract costing more than Rs. 100.00 crores and shall also perform the duties and responsibilities as defined in **Para 51.2.2.**



**SECTION 7: EXECUTIVE DIRECTOR (ED) (ENGINEERING)**

1. To function as Technical Adviser to the Management;
2. Shall function as Head of Department and shall exercise overall technical control of all the engineering personnel of all field units, airports, Corporate headquarter;
3. To take actions for effective implementation of management's policy, direction and decision;
4. Monitoring the projects, periodic follow-up meeting to review the progress and taking action to remove causes of hold-ups for projects;
5. Budget formulations, controls and re-appropriation of funds;
6. Should be responsible for full utilisation of funds provided in the approved budget;
7. Approvals of works under contingencies – for works costing more than T/S power of GM;
8. To issue technical and administrative directions to all field units including standardisation of procedures;
9. To decide engineering manpower requirement and its deployment;
10. To advise management on all the matter of transfer, promotion and recruitment and disciplinary proceedings of engineering manpower;
11. To accord T/S and approval of draft NIT as per Delegation of Powers;
12. To perform duties and responsibilities as prescribed in Works Manual and Delegation of Powers [DOP].
13. To monitor and guide effectively on CTE's observations and in arbitration proceedings;
14. Should be responsible to issue orders establishing chain of command and control authorities for all the works for which, tenders are accepted at CHQ.
15. Any other duties assigned from time to time by the Competent Authority.

## CHAPTER-III

### WORKS

#### **SECTION 8: CLASSIFICATION OF WORKS**

- 8.1 All the works of Airports Authority of India should be classified into following Categories:-
- (i) Capital Works;
  - (ii) Special Repair Works;
  - (iii) Ordinary/Annual repairs and maintenance works.
- 8.2 “Capital Works” shall comprise of following :-
- (i) All new constructions;
  - (ii) Replacement of equipments and systems;
  - (iii) Purchase for new works or systems;
  - (iv) Additions and alterations of existing structures, works or system;
  - (v) Strengthening of pavement structures;
  - (vi) Augmentation of water supply system, power supply system, air-conditioning and passenger facilitation system.
- 8.3 “Special Repairs” shall comprise of following :-
- (i) Alterations to existing structures to modify its use;
  - (ii) Alterations, large scale repairs or replacement in the existing structures, pavements and systems to improve utility and to enhance life;
  - (iii) Resurfacing of pavements
  - (iv) Restoration / improvement of performance level of installations/equipment
- 8.4 “Ordinary/Annual Repairs and Maintenance” shall comprise of followings :-
- (i) Routine maintenance works which are required for up-keep of the structures, pavements and systems functioning, and in proper condition;
  - (ii) Ordinary repairs and maintenance including surface painting of pavement surface;
  - (iii) Repainting of runway, taxiway and apron marking;
  - (iv) Repairs and maintenance of E&M equipments and installations.

## **SECTION 9: PREREQUISITE STAGES FOR EXECUTION OF WORKS**

### **9.1 Fundamental Prerequisites :**

9.1.1 Before execution of any Civil and Electrical work is taken in hand and liability is incurred under mentioned basic prerequisites should be fulfilled :-

- (i) Accord of Administrative Approval and Expenditure Sanction (A/A&E/S);
- (ii) Accord of Technical Sanction;
- (iii) Approval of Notice Inviting Tenders (N.I.T.);
- (iv) Appropriation and Re-appropriation of funds.
- (v) For Design based tenders and special E&M equipment T/S will be issued after technical bids are opened, finalised and technical parameters are processed. Authority competent to accord technical sanction shall authorise to invite the tenders and opening of technical bid pending the technical sanction

**Note:** Preliminary estimate for A/A & E/S will include expected escalation for the period of completion of the project.

9.1.2 Under normal circumstances no work should be commenced or liability thereon incurred until Administrative Approval and Expenditure Sanction has been accorded, a properly detailed estimate with design has been technically sanctioned and allocation of funds is available in the approved budget or provision of funds by re-appropriation is approved by the competent authority.

### **9.2 Exception of works of inescapable urgency:**

9.2.1 In case of “Urgency” or “Emergency” the work may be executed in the absence of any or all the above mentioned formalities.

9.2.2 For “**Urgent or Emergent Works**”, RED (NON-METRO AIRPORTS)/APD (METRO AIRPORT) shall authorise to commence the execution of such works in anticipation of administrative approval and expenditure sanction. No prior financial concurrence is required. However, case for accord of A/A & E/S should be processed at the earliest.

9.2.3 The above powers should be limited to works costing upto Rs. 25 lakhs only.

9.2.4 On receipt of such written order of the competent authority in each case, the SM/SM(SG)/ Asstt. GM (Engg), AAI shall proceed to carry out the necessary work, subject to the condition that, he will immediately inform the SAU/RAU concerned, that he is incurring a liability. The SM/SM(SG)/ Asstt. GM (Engg.) should simultaneously take actions to obtain the administrative approval and expenditure sanction and accord of technical sanction by the competent authorities to regularise such liability incurred. DGM/JGM/GM concerned should be responsible to co-ordinate all the activities of regularising the required formalities.

- 9.3 **Administrative Approval and Expenditure Sanction;**
- 9.3.1 Formal acceptance of the proposal of a work/project by the competent authority is termed as “Administrative Approval”. Financial concurrence of the cost of the project proposal by the competent authority is termed as “Expenditure Sanction”. For expedition of project management Administrative Approval and Expenditure Sanction (A/A & E/S) should be accorded simultaneously by the competent authority.
- 9.3.2 Administrative Approval and Expenditure Sanction should be accorded for original / capital works and special repair works.
- 9.3.3 A/A & E/S Memo should be issued in standard Performa given in **Appendix-1**. It should be issued by the Manager and above.
- 9.3.4 No separate A/A & E/S is necessary for ARMO works for which “Action Plan” giving work-wise details is to be prepared and approved by REDs/APDs/Airport In-charges before the commencement of the financial year. However, for all such repairs and maintenance works, technical sanction to the detailed estimate should be accorded by the competent authority and financial concurrence should be obtained prior to award of work.
- 9.3.5 Administrative Approval and Expenditure Sanction should be accorded on the preliminary estimate of the work framed and countersigned by the authority competent to accord technical sanction to the detailed estimate for the work.
- 9.3.6 A group of works, which forms one project, should be considered as one work. The necessity for obtaining A/A & E/S of higher authority to a project which consists of such a group of works shall not be avoided by the fact that the cost of each particular subhead of work in the project is within the powers of such approval or sanction of a lower authority. Technical sanction can, however, be accorded to components or subheads of a project separately and independently by engineering officers of AAI.
- 9.4 **Power to accord Administrative Approval and Expenditure Sanction :**
- For engineering works/services power for issue of A/A & E/S by various authorities of AAI should be as per the Delegation of Powers of AAI issued vide no. SEC: 1.1.37 dated 23.4.1999 as amended from time to time.
- 9.5 **Permissible excess over A/A & E/S :**
- 9.5.1 If the actual expenditure on a project or scheme, other than statutory increases and cost escalation within the project cycle time payable as per contract provision, does not exceed more than 10% of the amount originally sanctioned, then there is no need for revised A/A & E/S. In case it exceeds this limit, revised A/A & E/S should be obtained from the authority competent to approve the cost so enhanced as per the power delegated in the Delegation of Power. The excess expenditure

over and above the budget provision amount will have to be met by re-appropriation within the overall approved budget.

**9.6 Permissible variations in the amounts of subheads of sanctioned A/A & E/S for multi disciplinary projects only:**

9.6.1 While preparing preliminary estimate for obtaining A/A & E/S all the works should be grouped discipline/department wise in the respective subhead. For example, all the Civil works in the building including civil services, should be under subhead “Building Works”. Thus, the subheads in the abstract of preliminary estimate should be as under: -

- (i) Building Works: (All the Civil Works including Civil, Internal & External Services, Furniture, Furnishings etc.).
- (ii) Electrical Works: (Internal and External Electrical Services, Power Supply Works, Fire Fighting and Fire Alarm System, HVAC, P.A. System, FID, EPABX etc.)
- (iii) Equipment Works: (Elevators, Escalators, Aero-bridges, X-ray Machines, Baggage Conveyer, DFMD etc.)
- (iv) Pavement Works: (All Civil Works).
- (v) GLF Works: (Runway, Taxiway, Apron Edge Lighting, Apron floodlights, Approach Lights, CCR etc.).

Abstract of preliminary estimate should be prepared as per above sub-heads.

9.6.2 During execution of works funds provided in sanctioned A/A & E/S can be apportioned from one subhead to another subhead of work provided the variation in the subheads does not exceed the following limits :-

- (i) Building Works including service -  $\pm 30\%$ .
- (ii) Electrical Works -  $\pm 30\%$ .
- (iii) Runway and Pavement Works -  $\pm 50\%$ .

9.6.3 No separate approval should be necessary for apportioning funds from one subhead to another provided variation are within above-mentioned limits. However, such apportioning of funds should be subject to following conditions :-

- (i) The project in-charge shall ensure that overall excess on A/A & E/S amount shall not exceed 10% of sanctioned amount at any stage of execution;
- (ii) The above variation shall also be applicable on various works contracts within a particular subhead;

- (iii) If no expenditure is incurred in a particular subhead of A/A & E/S, then amount of that subhead cannot be apportioned to execute another subhead;
- (iv) Saving within above mentioned limits from one subhead can be utilised for execution of works in another subhead of work which are contingent to complete the main work required as per site conditions.

## 9.7 **Technical Sanction :**

9.7.1 After accord of A/A & E/S by the competent authority detailed estimates are required to be prepared for technical sanction.

9.7.2 Powers to accord technical sanction to detailed estimates should be as per the Delegation of Power of AAI issued vide no, SEC: 1.1.37 dated 23.4.1999 as amended from time to time. The powers of engineering officers of AAI to accord Technical Sanction in respect of revised estimates are the same as above.

9.7.3 Authority competent to accord technical sanction shall satisfy himself before accord of such sanction that the proposals are structurally sound and that the estimate are accurately calculated and prepared based on adequate data. Technical Sanction Memo should be in the standard proforma given in **Appendix-2**. After accord of the technical sanction by the competent authority, a TS Memo for allotment of no. should be issued by the Desk Officer-in-charge of issuing the same.

9.7.4 In normal circumstances, Technical Sanction should be accorded on receipt of A/A & E/S only. But in exceptional circumstances, it is permissible for the competent authority to accord Technical Sanction to the works before receipt of A/A & E/S only to facilitate call of tenders. In Regional Headquarters/ field stations prior approval of one step higher authority of Technical Sanction and in CHQ prior approval of Member [P] shall have to be obtained. Award letter of contract will only be issued after accord of A/A & E/S. However, such circumstances should be placed on record in writing. In case of revised estimate, it is not necessary to wait for the revised A/A & E/S to accord revised Technical Sanction. However, other conditions as brought out above shall apply.

9.7.5 For critical / special equipment [including imported ones], where the correct rate etc. is not available, issuance of technical sanction can be accorded after opening of price bid and acceptance of the equipment, in accordance with the stipulated specifications.

## 9.8 **Technical Sanction to Components:**

It is permissible to accord Technical Sanction to components or small parts of a sanctioned project subject to following conditions: -

- (i) For each such work or component part, there must be fully prepared detailed estimate and in the A/A & E/S of the whole project there must be a clear and specific amount corresponding to the work or component part in question.

- (ii) The amount of the detailed estimate of such component work should not exceed the amount provided in A/A & E/S. Where this limit exceeds the amount to be sanctioned within the delegated powers of Technical Sanction of the officer, the matter should be reported to the authority competent to accord Revised Technical Sanction of the entire project to obtain his prior approval.
- (iii) In exceptional cases, where the works are authorised to be taken in hand before accord of A/A & E/S, Technical Sanction to the components or small parts of the project should be accorded by the authority competent to accord sanction to the detailed estimate for the project as a whole.
- (iv) Splitting up of works in small components or in phases for the purpose of Technical Sanction or invitation of tenders by the lower authorities is prohibited unless such splitting is allowed by the concerned ED (Engg.).

9.9 **Permissible excess over Technical Sanction :**

9.9.1 Upto 10% (Ten percent) should be permissible expenditure over the technically sanctioned amount. In such case no revised technical sanction should be necessary.

9.10 **Revision of Technical Sanction: -**

9.10.1 In case the actual expenditure exceeds the original technical sanction by more than 10% then the revised technical sanction is required and should be accorded by the competent technical sanctioning authority.

9.10.2 If at any time either before or during the construction, it is found that likely expenditure on work should be reduced by more than 10% of the original Technically Sanctioned amount due to abandonment of substantial portion of the project or deviations from the original proposals and designs, then the revised Technical Sanction should be accorded by the authority who accorded original technical sanction. However, ED (Engg.) shall have full powers in this respect.

9.11 **Approval of Notice Inviting Tender (N.I.T.) :**

9.11.1 Notice Inviting Tenders is the complete document comprising of :-

- i) Draft of Press Tender Notice;
- ii) N.I.T. with instruction, to tenderers;
- iii) General Rules and Directions;
- iv) Conditions and clauses of contract;
- v) AAI Safety Code;
- vi) Model Rules for the Workers;
- vii) Contractor's Labour Regulations;
- viii) Proformas of Records and Registers;
- ix) Special Conditions of Contract, if any;
- x) Technical Specification of Items, if any;



- xi) Particular Specification for Civil Works, if any;
- xii) Particular Specification for Electrical Works, if any;
- xiii) List of approved makes, if any;
- xiv) Sketch of Cement Godown;
- xv) Drawings;
- xvi) Bill of Quantities;
- xvii) Any other documents/details considered appropriate by the NIT approving authority.

Draft N.I.T. documents should be page numbered and indexed. Total number of pages should be mentioned and certified on the front page of Draft NIT. All the correction, cutting or overwriting should be initialed wherever applicable.

- 9.11.2.1 Brief Press Tender Notice should be as in Annexure-2. For display on AAI website standard proformas should be as at **Appendix-3** and **Appendix-4** or approved by competent authority from time to time. For E&M, HVAC, Aerobridges and specialized works eligibility criteria, works experiences etc, be suitably modified and should be approved by NIT approving authority.
- 9.11.2.2 Notice Inviting application for short listing of contractors for global tenders should be given in standard format given at **Appendix 5** and check list format to be submitted by applicants along with application for tender is at **Annexure-1**
- 9.12 **Short listing of contractors for the works pending A/A&E/S and Technical Sanction (T/S)**
  - 9.12.1 For urgent / operationally urgent works, in anticipation of A/A&E/S, to save time, press notice for pre-qualification of agencies may be released, based on preliminary estimate pending issue of A/A&E/S and T/S with the approval of Chairman.
  - 9.12.2 Where prequalification of agencies are required, to save time, press notice may be released based on preliminary estimate after issue of A/A&E/S but pending issue of T/S with the approval of Member (Plg.).
  - 9.12.3 It should be ensured that tender fee has been deposited by the agency before the issue of tender document.
  - 9.12.4 In order to have transparency, the firms which are not short listed for issuing tender papers, should be intimated with the reasons for rejection of their application.
  - 9.12.5 Authority competent to accord technical sanction shall approve the Draft NIT after Technical Sanction to the detailed estimate is accorded. Once the technical sanction is accorded on the details so worked out, no changes whatsoever should be allowed in NIT. In the event such changes are inevitable, the same should be brought to the notice of technical sanctioning authority for his approval. The items and quantities contain in technical sanction and BOQ should be identical, Approving authority shall examine the Draft NIT document thoroughly and satisfy himself about relevancy, adequacy and correctness of each provision, clauses

nomenclature and specifications of items etc. before approving. After approval the Draft NIT should be sealed before sending it to the authority calling tenders/offers.

In case of any clarifications, the approving authority may seek necessary clarifications from the legal department before approving the draft NIT.

9.12.6 Once N.I.T. is approved no additions to, deletion from, corrections or modifications etc. should be made without prior approval of the approving authority.

### 9.13 **Appropriations and Re-appropriations :**

9.13.1 Appropriation means assignment of funds to meet specified expenditure. Re-appropriation means the transfer of funds from one unit of appropriation to another such unit. No expenditure on a work should be incurred without funds having been allotted for it by appropriation or re-appropriation. In exceptional and emergent cases Member (Plg.) can authorize expenditure on works in anticipation of the allotment of funds or in excess of the funds allotted for the purpose, but such authorization must be regularized subsequently by a formal allotment of funds to the extent required as per provision of DOP.

9.13.2 Allotment of funds either through approved budget or by re-appropriation is meant to cover all the charges of current financial year including the liabilities of the past years to be paid during the current year. It is operative until the close of the financial year. Any unspent balance of allotted fund at the end of this financial year lapses and is not available for utilization in the following year.

9.13.3 An appropriation or re-appropriation can be authorised at any time before, but not after the expiry of the financial year.

### 9.14 **Power of Appropriation and Re-appropriation:**

Powers to appropriate or re-appropriate of funds should be as per the Delegation of Powers of AAI issued vide no. SEC:1.1.37 dated 23.4.1999 as amended from time to time.

## **SECTION 10: PREPARATION OF ESTIMATES**

### **10.1 Preliminary Estimate of Building Works**

10.1.1 Preliminary Estimates for capital works should be prepared for obtaining A/A & E/S of the competent authority. Preliminary estimate gives an approximate value of the cost involved in the proposal. For all the building works preliminary estimate should be prepared on the basis of plinth area. The preliminary estimate for A/A & E/S will include expected escalation for the period of completion of the project.

### **10.2 Methodology and steps for preparation of Preliminary Estimate:**

#### **10.2.1 Major Building Works with associated services being finalised at Corporate Head Quarter**

- i) Requirements of user agencies and all the concerned directorates of AAI should be finalised and scope of works should be formulated by the user department/ED (Planning) in specified format as applicable after due consultation, field inspection and obstruction surveys etc. The draft scope of work should be circulated to all concerned Directorates involved in planning and execution of different packages of the Project before approval by competent authority and to be forwarded to Directorate of Planning who will act as a Nodal Directorate to examine the site / location, other operational factors and to obtain approval of competent authority i.e Member (Plg).
- ii) After obtaining approval of Member (Planning) for the scope of work. The scope of work once approved shall stand frozen and shall not be changed without obtaining prior clearance of the approving authority (according approval) as well as the authority according A/A & E/S to the work.
- iii) Copies of approved scope of work shall then be sent to concerned Architectural Wing/Architect and Engineering Directorate. Thereafter, Architectural Wing shall prepare preliminary drawings and send the copies to user department. The user department shall examine the drawings in consultation with all the associated user agencies and concerned Directorates of AAI. Comments/observations should be sent to Architectural Wing/Architect who shall then finalise the preliminary architectural drawings. The finalised drawings shall then be put up for approval to the Approving Committee for approval /formal clearance of the scheme. User Deptt./ED (Plg.) should be co-ordinator.

Approving Committee shall comprise of Chairperson, Member (Planning), Member (Ops), Member (Finance), ED (Engg.), ED (Arch), ED (Plg.), ED (CNS) Plg., ED (Ops)/ED (ATM). Drawing once approved by the Committee shall stand frozen and no modification should be carried out without prior approval of Member (Planning). User Deptt. / ED (Planning) shall sign the drawings in token of approval of the committee. NOC, if

required, should be obtained by Planning Directorate from the NOC cell of Operational Directorate. Copies of approved drawings shall then be sent by user Deptt./Planning Directorate to Engineering Directorate, Regional Executive Director (NON-METRO AIRPORTS)/Airport Director (METRO AIRPORT) and concerned Airport in-charge.

- iv) If approval of Local Body is required then the same should be processed and obtained by Architectural wing/Architect in co-ordination with Airport in-charge. No work should be commenced without approval of the local body, if so required.
- v) On receipt of approved Layout Plan (LOP) and preliminary architectural drawings preliminary estimate should be prepared by Directorate of Engineering to obtain A/A&E/S from Competent Authority.

The preliminary estimate should be prepared on plinth area basis adopting current plinth area rates being followed in CPWD duly enhanced by prevailing cost index worked out with prevailing rates of labour and materials. In case, rates are given by consultants, these rates are to be verified independently by concerned Senior Manager while scrutinising the estimate. Provisions for services like sanitary, water supply, drainage, electrical installation and site development etc. should be made on the basis of percentage of the cost of building, as considered reasonable, according to the specifications to be adopted. For superior specifications extra cost should be worked out based on prevailing rates and provided for separately. For the items including E&M Services which are not covered in CPWD plinth area rates, estimated cost based on budgetary offer/prevaling rates of labours and materials for items of work involved, should be worked out and provided.

- vi) No cost index should be added on the items, which are based on lump sum provision or are estimate based on the prevailing market rates.

#### 10.2.2 Building works with associated services being finalised at Regional levels

- i) Procedures described in above Para should be followed except that GM (Aerodrome)/JGM (Aerodrome) or any other officer authorised by the Regional Executive Director (NON-METRO AIRPORTS) or Airport Director (METRO AIRPORT) should be the co-ordinating authority for finalising the scope of work. Regional Executive Director (NON-METRO AIRPORTS) or Airport Director (METRO AIRPORT) shall approve the scope of work and also approve the preliminary architectural drawings in consultation with architects, regional engineers and user directorates. Regional Executive Director (NON-METRO AIRPORTS)/Airport Director (METRO AIRPORT) may seek approval of Member (Planning), if considered necessary.

- ii) Before approving any new structure Regional Executive Director (NON-METRO AIRPORTS)) and Airport Director (METRO AIRPORT) shall ensure that the proposed structure is in conformity with the Master Plan.
- iii) Large scale additions, alterations and modifications to the existing structures are required to be examined in detail by CHQ with reference to its conformity to the future plan, architectural and structural compatibility. Therefore, Regional Executive Director (NON-METRO AIRPORTS) and Airport Director (METRO AIRPORT) shall ensure that the project involving large scale additions, alterations and modifications to the existing structures of the Airport Complex are not approved without taking prior approval from the Planning Directorate of CHQ.

### 10.3 Rules for working out Plinth Area from Plans :

Following rules should be followed in order to ensure the adoption of a uniform method of working out plinth areas. These are based on the fundamental principle that the plinth area of a building should represent the covered floor area. These rules are general in nature and should be taken as guide: -

#### General

- (a) The total plinth area of a building should be the sum total of the plinth areas at every floor including the basement.
- (b) Internal sanitary shaft shall not be included in the plinth area in the case of residential building at any floor level.
- (c) In case of non-residential buildings, internal shaft for sanitary installations, air-conditioning duct, lights etc. should be included in the plinth area at all floor level.
- (d) The area of a mumty at terrace level shall not be included in the plinth area. If a Barsati is provided jointly with mumty, then the area of the Barsati excluding the mumty at the terrace level should be included in the plinth area.
- (e) Towers, turrets, domes projecting above the terrace shall not be included in the plinth area at terrace level, but its cost should be worked out separately.

#### Plinth Area of Ground Floor

The plinth area of the ground floor should be calculated at the plinth level excluding the plinth off sets provided such plinth off sets are not more than 5 cms. In cases where the building consists of columns projecting beyond cladding, the plinth area should be taken upto the external face of the cladding and shall not include the projections of the columns.

On the other hand, if open verandahs with parapets are provided at the ground floor projecting out of the building the full area should be taken upto the outer line of the external verandah lintel and only 50% of the area should be taken for the unprotected verandah. Open platforms (i.e. platforms without parapets) and terrace at ground floor and porches shall not be included in the plinth area but should be allowed for separately for costing purpose.

Plinth area at First and Higher Floors:

The plinth area of first and higher floors should be calculated at the relevant floor levels. Architectural bands, cornices etc. shall not be included in the plinth area even though they may occur at the floor level. Vertical sun breakers or box louvers projecting out also shall not be included in plinth area.

In the case of projecting balconies protected to their full width by sunshades, full width roof projection, or by upper balconies, their full area should be included in the plinth area. In the case of unprotected balconies equivalent area to the extent of 50% of the area of the balconies should be included in the plinth area.

Galleries, Mezzanine Floors, Lofts

- a) Area of galleries i.e. upper floor of seats in an assembly hall, terminal building, auditorium, theatre etc. should be fully included in the plinth area.
- b) Area of mezzanine floor i.e. intermediate floor introduced between two main floors should be included in the plinth area, if no separate provision is made for the same.
- c) The area of a loft i.e. an intermediate slab just beneath the floor or roof without any direct staircase leading to it and used for storage purpose shall not be included in the plinth area.

**10.4 Preliminary Estimate of Pavement Works**

10.4.1 Scope of work shall first be decided and approved as described in above Para.

10.4.2 Preliminary estimate of pavement works should be prepared based on similar work executed in the recent past and so far as possible on the basis of detailed estimate of actual quantities of item of the work to be executed.

10.4.3.1 Before processing any proposal to resurface or to strengthen the existing pavement of runways, taxiway, apron etc. and preparing estimates thereof at Corporate Headquarters, thorough site inspection of existing pavement condition, existing pavement structure, drainage system, requirement of development of basic strip/runway strip, etc. shall be carried out by a team comprising of officers from Engineering (Civil & Electrical), planning and other related directorates before deciding the necessity and scope of such works.

10.4.3.2 In the detailed estimate and contract for the work of resurfacing and /or strengthening of pavement, suitable item shall be incorporated in the BOQ for

measurement of PCN value of the pavements before the start of work and after completion of the work so that the agency to whom the contract has been awarded carries out the in-situ measurement of PCN values as contract items. In the contract appropriate condition shall be incorporated for associating specialized agency/firm by the contractor for determining PCN value. For the contracts of construction of new pavement of extension of pavement similar item shall be incorporated in BOQ for evaluating in-situ PCN value after execution of pavement structure. The in-situ PCN value shall be carried out by HWFD method. This will help in declaring the achieved PCN value after the work is over.

- 10.4.3.3 Determination of in-situ PCN values of runway, taxiway and apron for each active airport shall be carried out by each region once in a year and the value obtained thereof shall be reported for operational purpose.
- 10.4.3.4 The runway friction test for the measurement of co-efficient of runway friction of all the active airports should be carried out once in six months.
- 10.4.3.5 Provision for expenditure to undertake determination of pavement characteristics in accordance to above paras shall be made by each region in the Budget.
- 10.4.4 Rates of the items should be worked out based on prevailing local market rates of labours and materials with norms of Standard Analysis of Rates for airfield pavement works, Ministry of Road Transport & Highways (MORTH) or recently accepted tender rates of similar items in the locality. In case, rates are given by consultants, these rates are to be verified independently by concerned Senior Manager while scrutinising the estimate.

**Note 1:** Site and soil particulars should be furnished by field engineers in proforma at **Appendix-6**. For preparation of pavement estimate, check list at **Appendix-7** and check list for L-section at **Appendix-8** should be considered. For preparation of preliminary estimate for building check list at **Appendix-9** should be considered.

**Note 2:** While finalizing the estimate all aspects involving operations, technical, site condition and other user requirement should be properly considered and incorporated.

## 10.5 **Detailed Estimate :**

10.5.1 Availability of site is pre-requisite for planning and designing of work. The preparation of detailed estimate, drawings and design should be taken up after obtaining the assurance from the Airport In-charge that land is available without any encumbrance or litigation.

10.5.2 After accord of A/A & E/S detailed designs and drawings should be prepared by the Directorate/Authority indicated below :-

- (i) Detailed architectural design and drawings – Architectural Wing/ Architect appointed

(ii) Detailed structural design and drawings – Structural Design Wing/ Consultant appointed.

(iii) Pavement structural design and drawings – Engineering authority of AAI or consultant appointed.

**Note:** Design of new runway/taxiway/apron pavement structure, strengthening or resurfacing of existing runway/taxiway/apron pavements should be got approved from the concerned ED (Engg.) irrespective of the cost of the project.

10.5.3 Detailed estimate of the component/subhead of preliminary estimate having highest value should be prepared by the engineering authority competent to accord technical sanction upto that value as per the Delegation of Powers. For other subhead of works of lesser value he shall decide and direct other authorities, if felt necessary, to prepare detailed estimate of each such component and to accord technical sanction accordingly.

10.5.4 Detailed estimate should be comprehensive duly supported by complete details and based on drawings and calculation of design. Estimate should be prepared under following subheads :-

i)	History	Particulars relating to the initiation of and reasons leading upto the proposal and its general purpose including reference to previous correspondence, documents, where necessary.
(ii)	Design	A description of the original proposal and the finally adopted particularly with regard to location, design and also with reference to specifications, calculations and drawings, where necessary.
(iii)	Scope	An explicit statement as to what work is and is not covered by the estimate, also a reference to what arrangement are being made for any portions which are not included in the estimate.
(iv)	Rates	Particulars as to how the rates have been arrived at giving reference to the standard schedule of rates and also to the details accompanying the estimates, where necessary, with any special explanation connected therewith.
(v)	Cost	Cost: Cost of the work and a comparison with the corresponding amount provided in A/A & E/S.
(vi)	Method	The method proposed for carrying out the work whether by item rate, percentage rate or lump sum contract tender etc.
(vii)	Establishment	Details of any provision made in the estimate for work charged establishment, if necessary.
(viii)	T&P	Details of the provision that has been made for any construction tools and plants etc.
(ix)	Land	Availability of land or other wise.
(x)	Time	Estimated period of construction after award of work.



For preparation of detailed estimate rates for the items should be adopted as under:

(i)	Items available in current CPWD Schedule of Rates :	CPWD Schedule of Rates with contractor's profit and OH should be 10% duly enhanced by prevailing cost index of the locality worked out based on current rates of labour and material adopting standard CPWD Norms.
(ii)	Items not Available in CPWD Schedule of Rates :	Rate to be analysed based on current rates of materials and labours with standard coefficients or observed coefficients of use with 1% water charge and 10% contractor's profit.

While forwarding the detailed estimate for technical sanction, following informations should invariably be furnished: -

- (i) Necessary details in support of the lump sum provision against cost of works made in the estimate, if any;
- (ii) Basis on which the rates have been provided, i.e. name of schedule of rates adopted etc;
- (iii) Calculations of cost index duly supported by prevailing cost at site of material and labour (As per Proforma issued from CPWD);
- (iv) In case, rates are given by consultants, these rates are to be verified independently by concerned Senior Manager while scrutinising the estimate.
- (v) A brief note on the special construction difficulties, if any, that are likely to be encountered during the project construction stage and provision made for them in the estimate.

## 10.6 Special provisions to be made in estimates :

10.6.1 In preliminary estimate and detailed estimates following special provisions should be made whenever applicable: -

(i)	If the work is to be executed within the operational area/operational buildings involving restricted working time and restricted movement.	(a) Preliminary estimate – 5% on the amount of the estimate. (b) Detailed estimate – 5% on the amount of the estimate. Over the cost of component of works to be executed in operational area / building under restricted working conditions.
(ii)	If the work is to be executed in the remote/disturbed areas (Declared by competent authority as perceived from time to time). Present list is at <b>Appendix - 10</b>	(a) Preliminary estimate – 5% on the amount of the estimate. (b) Detailed estimate – 5% on the amount of the estimate.

(iii)	Work Contract Tax (WCT)	As applicable
(iv)	Contingency	3% on the cost of estimate

10.6.2 (a) Above factors (i) to (iii) and any other factors, which are not covered under standard Analysis of Rates required as per NIT/site condition (influencing the execution) should be accounted for in working out analysis of rates of items for justification of tenders.

(b) Contingency provision are meant to meet the expenses of press advertisements, press tender notices, minor works arising due to site conditions and contingent to main work for its completion. This provision shall also be utilised to meet expenses in project work like construction of temporary site office, site laboratory, site stores room/godown, providing furniture for field offices/work places, project stationery, type writer, photocopiers, computers, telephones, cell phones, printing/typing charges etc. engaging temporary workers/manpower for project jobs and vehicle purchase or hire charges and P.O.L. expenses etc. Procurement of items such as Telephone, cell phone, computer, Photocopier etc. should be governed by the policy of AAI and approval of competent authority, accordingly.

10.6.3 GM (Engg) within his delegated power of technical sanction should be the authority to approve expenditure against contingency provision.

10.7 **Revised Estimate :**

When any excess over permissible limits of sanctioned estimate is foreseen and there is likely to be unavoidable delay in preparation of a revised estimate an immediate report of the circumstance should be made to the authority whose sanction will ultimately be required for approval in principle. Revised estimate should be submitted in the proforma given in **Appendix-11**.

10.8 **Repair Estimate for Works:**

10.8.1 The total estimated cost of maintenance of various buildings/ structures during a year should be of the building both for annual repairs and special repairs: While preparing the repair estimate following guidelines may be followed. These plinth area rates are as on 1.10.1979 with base at Delhi. These should be revised upwards cost index of the station worked out as per proforma given in **Appendix- 12& Appendix-13**.

**Part –I: Plinth area rates for Civil Engineering Maintenance**

S N	Category	Service Charge Rs/Sqm	For Repairs Estimate			
			Annual Repairs Rs/Sqm	Special Repairs		
				Age 0-20 years Rs/Sqm	Age 20- 40 years Rs/Sqm	Age above 40 years Rs/Sqm
1	2	3	4	5	6	7

Residential building						
1	Chairman's residence	4.80	5.50	2.30	3.85	5.40
2	All other residential Units	2.40	2.75	1.75	2.90	4.05
3	Hostels & Guest Houses	3.10	3.55	1.75	2.90	4.05
Non Residential Buildings						
1	Terminal Buildings. Control Tower, Technical Blocks etc	5.15	5.90	9.65	9.65	9.65
2	Temporary office building	2.75	3.15	2.35	3.85	-

Notes:

1. The above plinth area rates do not cover expenditure on conservancy charges.
2. The rates also do not include the extra amount required for maintenance and repairs in hilly regions.

### Part –II: Plinth area rates for Electrical Engineering Maintenance

S. No	Category	Rs/Sqmt for day to day service, repairs, maintenance	
		Concentrated Groups	Scattered Groups
1	2	3	4
Residential Buildings			
1	Chairman's residence	5.55	-
2	Type I to IV residential units	2.30	2.80
3	Type V & above residential units	2.80	3.25
4	Hostels & Guest Houses	3.70	-
Non Residential Building			
1	Terminal Buildings, Control Tower, technical block etc.	9.25	-
2	Temporary office building	3.25	3.70

Notes: -

1. Frequency of annual and periodical maintenance works should be as per Chapter Execution of work.
2. These plinth area rates do not cover expenditure on maintenance and running of air conditioning installations, lifts, pumps and sub-stations. Funds will be provided for these services on actual requirements.
3. The rates do not include extra amount required for maintenance and repairs in hilly regions.
4. It has been decided that no norms should be prescribed for special repairs (electrical) and that estimates should be prepared for each set of building



individually and sanctions obtained, after a survey has been conducted on an annual basis.

- 10.8.2 These amount of “Special Repairs” as above can be carried forward upto five years where considered necessary.
- 10.8.3 Repair estimate should be checked by AM/M Engg and SM/SM(SG)/Asstt.GM Engg to the extent of 25% and 5% respectively. It should be ensured that there is no duplication or infructuous expenditure in case of annual and special repairs.
- 10.8.4 The repair estimate for various works should be prepared and sanctioned separately for each of the following categories of assets: -
- Residential buildings in groups of different types of buildings.
  - Technical buildings excluding hangars.
  - Hangars.
  - Runway, Taxi Tracks, aprons, side strips and drains in operational area.
  - Roads, external services, gardening, drains (out side operational area) etc.
  - Night landing facilities, VASI/PAPI and other electrical installations.
- 10.8.5 Following instructions should be carefully observed while preparing the repair estimates:
- Residential and Technical Buildings: -  
The estimated amount for repairs may not exceed the amount calculated on the basis of norms given in above para.
  - Hangars: -  
In case of hangars, the amount required for oiling and greasing of doors and for white washing and painting etc. of annexe should only be provided in annual repairs estimates. No provisions for painting of hangars or for any repairs to the floors etc. should be made in the annual repair estimates. Whenever painting of the hangar or the repairs to the roof and floors are necessary, these should be sanctioned under a special repairs estimate.
  - The SM/SM(SG)/Asstt. GM Engg should draw out the programme in such a way that all the hangars are painted every fourth year.
- 10.8.6 At the beginning of the year, a survey of the buildings should be conducted by the SA/SS/Jr. Ex. (Maintenance) to identify the items of special repairs which are required to be carried out. The time frame for carrying out annual repairs and special repairs should be drawn up by AM/M Engg for each airport under his jurisdiction at the commencement of each year.
- 10.8.7 The SA/SS/Jr. Ex. Engg should physically inspect 100% of the building where annual repairs are carried out. AM/M Engg should carryout personal inspection to the extent of 25%.

## 10.9 Guideline for preparation of maintenance estimate for Horticulture work

The following norms shall be followed for preparation of maintenance estimates for various horticulture works in AAI

### I. MANPOWER

- i) Maintenance of lawn –One mali for 1.00 acre
- ii) Maintenance of hedge – One mali for 12000 running ft.
- iii) Mowing of lawn - One mali for 12 acres
- iv) Trees:
  - One Mali for 250 Nos. of trees upto 4 years old
  - One Mali for 300 Nos. trees between 4-8 years old
  - One Mali for 1200 Nos. of trees beyond 8 years old
  - One Mali for 500 Nos. shrubs plants
  - One Mali for 250 Nos. displayed foliage potted plants
  - Labour /Beldar – 18 Nos. per acre for seasonal work.

### II. MANURE, FERTILISERS, GOOD EARTH

- i) Sludge manure/Cow dung manure - 12 cum per acre
- ii) Good earth - 12 cum per acre
- iii) For Road side plantations Sludge - 5 cum for 100 trees  
manure/cow dung manure 5 cum for 1200 shrubs
- iv) Fertilisers:
  - Urea - 100 kg per acre
  - DAP - 100 kg per acre

## **SECTION 11: EXECUTION OF WORKS**

### **11.1 Preliminary**

11.1.1 It should be ensured that no work is taken in hand without proper technical sanction except for design base tenders. After accord of technical sanction to the detailed estimate, action should be taken immediately for taking over the possession of land /work site required for the construction work. Action is also to be taken expeditiously for approval of draft Notice Inviting Tenders and publication of Press Tender Notice including release on AAI Website. Where the project includes works like electrical, air-conditioning, equipment procurement and installation of navigational aids etc., concerned Units/ Directorates in respect of these works should be immediately informed alongwith the copies of the A/A & E/S, approved preliminary estimate, and related portions of the detailed estimates. Simultaneously, copies of the drawings/plans should be furnished to these units for further action on these items.

11.1.2 If external services i.e. roads, drains, water supply mains, sewerages, electricity supply (main) are to be provided by local Municipal Authorities or Electricity Boards etc. then the concerned Engineer-in-Charge of the project shall coordinate with these agencies expeditiously so that these services are available simultaneously with the completion of the project.

### **11.2 Scope of Sanction**

11.2.1 Administrative Approval and Expenditure sanction to an estimate amount to an authority granted for the precise project for which the estimate was intended to provide. Accordingly any anticipated or actual savings of a sanctioned estimate for a definite project shall not, without prior special sanction of the authority which accorded administrative approval to the project, be applied to carry out additional work not contemplated in the original project.

11.2.2 After grant of technical sanction, if material structural alterations are contemplated, the orders of the authority, which sanctioned the estimate technically, should be obtained, even though no additional expenditure may be involved due to such alterations.

11.2.3 If any additional work is considered necessary for the development of a sanctioned project, while the work is in progress, which is not fairly contingent to the work as sanctioned the same should be executed by obtaining a separate A/A & E/S through a supplementary estimate.

### **11.3 Inspection of work :**

11.3.1 It is incumbent upon various officers concerned with the work for i.e. JGM/DGM/SM/SM(SG)/M/AM/Jr. Exe/SS/SA Engg.(C/E) to inspect the works frequently during execution to ensure that works are being executed strictly according to design and specifications laid down for the purpose. Primarily an Officer who records/test checks the measurements of an item of work should be

responsible for the quality and quantity and dimensional accuracy of the work that he has measured/test checked.

11.3.2 Assistant Manager, Engg.(C/E) and Manager, Engg.(C/E) must make adequate surprise checks to ensure quality of work during concreting and hidden items of work like reinforcement etc.

11.3.3 The works Diary should be maintained as per the **Appendix – 14**

#### 11.4 **Completion Certificates :**

11.4.1 The completion certificate of any work should be recorded in the measurement book by the concerned SA/SS/Jr. Exe, Engg.(C/E) or Manager/ Assistant Manager, Engg.(C/E) under whose direct supervision the work has been completed. This certificate should then be countersigned by the Engineer-in-charge of the work.

11.4.2 Final Completion Certificate of work should be issued by each authority up to the level of SM/SM(SG) (Engg.) to the extent they are delegated powers for technical sanction. However, for the works costing more than technical sanction limit of SM/SM(SG) (Engg.), completion certificate should be issued by DGM's/JGM's. Report of completion certificate should be submitted to the next higher authority within 30 days of issuing such certificate.

11.4.3 No final payment should be released to the contractor unless completion certificate is issued by the competent authority.

11.4.4 (a) The form of completion certificate to be recorded in the measurement book should be as under: -

“Certified that the work has been physically completed on \_\_\_\_\_, that no defects are apparent and the contractor has removed from the premises on which the work was being executed, all scaffolding, surplus materials and rubbish and cleaned off the dirt from all wood work, doors, windows, walls floors or other parts of the building, in, upon or about which the work was to be executed or of which he had possession for the purpose of execution thereof. This is, however, subject to measurements being recorded and quality being checked by the competent authority”.

(b) DGM/JGM shall issue completion certificate in following form: -

“I have inspected the work of \_\_\_\_\_, contract value of which is Rs. \_\_\_\_\_ vide agreement no. \_\_\_\_\_ today. As a result of this inspection and my previous inspections, I find that the work has been carried out generally to specifications, and has been completed satisfactorily. There are no noticeable defects except for the following”: -

This certificate is required to be recorded within a period of 3 months from the date of completion of the work.

## 11.5 Co-ordination during execution of work :

11.5.1 Co-ordination during actual execution of work should be done by the concerned DGM/JGM/GM Engg (C). As soon as the project is started Sr. Manger, Engg.(C) should obtain copies of working drawings and diagrams for the electrical works from the SM/SM(SG), Engg.(E), showing clearly the positions and sizes of the holes and chases which are to be left to accommodate the fittings. Similar action should be taken by the SM/SM(SG), Engg.(C) himself in respect of sanitary and water supply installations. SM/SM(SG), Engg.(C) should see that all the holes and chases are left in the proper places while masonry work is in progress. Joint inspection should be arranged with the SM/SM(SG), Engg.(E)/Manager, Engg.(E) to ensure that no mistakes are made in the positions and also to arrange for modifications if any, that may be considered advisable.

11.5.2 Composite tenders comprising of civil works, water supply, sanitary installations, internal electrification works, fire fighting and fire protection works should be called for smooth execution. Civil and Electrical works should be inspected and measured by the engineers of the respective disciplines i.e. civil and electrical but over all contract management should rest with the SM/SM(SG) Engg(C) designated as Engineer-in-Charge by the project head.

11.5.3 SM/SM(SG) Engg(C) designated as Engineer-in-Charge shall maintain a register called "Consolidated Register of Works", wherein, total cost of the project including all components i.e. building, water supply, sanitary installations, internal electrical installations, air conditioning, fire fighting and fire detection system, furniture and furnishing etc. should be entered. For this purpose, different engineering units concerned, on completion of their portions of work, intimate the audited figure of the expenditure to the SM/SM(SG), Engg.(C). Over all responsibility for obtaining revised A/A & E/S for the project as a whole, wherever required, shall rest with the SM/SM(SG), Engg.(C), In-charge of the project.

## 11.6 Maintenance Services :

11.6.1 The scope and area of civil engineering maintenance services and repairs will generally include:

- a) Maintenance of runway, taxiway, aprons, shoulders, overrun areas, etc.
- b) Maintenance of terminal buildings, hangars, various communication stations like VOR, DVOR, middle marker, outer marker, transmitting stations, etc., residential buildings and other ancillary buildings.
- c) Maintenance of internal roads, culverts, vehicle parking area, etc.
- d) Maintenance of water supply system, sewerage system, drainage system, fire fighting system including sprinklers, fire hydrants, pipelines and valves etc.
- e) Maintenance of furniture.





- f) Maintenance of security fencing.
- g) Minor additions/alterations which do not affect the existing structural design.

11.6.2

The scope and area of electrical engineering maintenance services and repairs will include :

- a) Maintenance and operation of HT/LT Power supply equipment in airport terminal buildings, airport communication stations, residential quarters, and ancillary buildings.
- b) Maintenance and operation of standby D/G sets at airports, communication stations, etc.
- c) Maintenance and operation of ground lighting facilities in an airport.
- d) Maintenance and operation of flood lights, apron lights.
- e) Maintenance and operation of following mechanical equipments.
  - i) Baggage conveyors
  - ii) Lifts
  - iii) Escalators
  - iv) Aerobridges
  - v) F.I.D.S.
  - vi) Electrically operated road barriers
  - vii) Electrically operated Automatic doors
  - viii) Power supply to X-ray Baggage Units
  - ix) Power supply to PA System and C.C.T.V. system.
- f) Water supply and fire fighting system viz. maintenance of pump sets and operation of pump sets only.
- g) Maintenance and operation of central air conditioning plants, cold storage units, A/C units, water coolers, etc.
- h) Internal electrification to terminal building, hand driers, water heaters, sign boards, rotating beacon, residential quarters, ancillary buildings, fire stations, communication stations, etc.
- i) External electrification of car park lighting, road lighting, etc.
- j) Minor additions /alterations in electrical installation.

NOTE : Above list is not exhaustive and is for guidance only.

### 11.6.3 Electronic Works: - Maintenance schedule

- a) Maintenance and operation of Security System such as X-ray machines, HHMD, DFMD, Access control system, surveillance CCTV etc.
- b) Maintenance and operation of communication system such as EPABX, RT Set, Intercom sets etc.
- c) Maintenance and operation of FID System, indicating CCTV, PA System etc.
- d) Maintenance and operation of computer networks, PC's and allied power supplies.
- e) Fire detection and Safety system such as Fire alarm system including addressable main and repeater panels.
- f) Cabling net work and power supplies related to above system.
- g) Other operational and facilitation system in Fire station, cargo etc.

#### Schedule of maintenance:

S. no	ITEM	FREQUENCY
1	Cleaning of Monitors, FID Boards & other equipment	1 week
2	Cleaning of Fire detectors	2 months
3	Tuning/alignment of PA Equipment	15 days
4	Alignment of TV monitors	1 month
5	Checking up of software in control equipment, EPABX	1 month
6	Parameter checking in PA equipment, monitors, EPABX etc.	1 month.

### 11.7 **Type of Maintenance**

11.7.1 The various types of maintenance works should be grouped into three categories, viz:

- a) Annual maintenance;
- b) Periodical maintenance;
- c) Day-to-day maintenance.

The maintenance works involved under each category and their frequency of execution are indicated in succeeding paragraphs.

11.7.2 The frequencies of annual and periodical maintenance services mentioned below are for general guidance. The Engineer-in-Charge responsible for the maintenance services will physically verify the site requirements and in consultation with Airport In-charge may suitably alter the frequencies of services in justified cases with prior permission of the next higher engineering authority.

**11.7.3**

The annual maintenance works shall generally consist of :

Civil Works

S.N	ITEM	FREQUENCY
a)	White washing/colour washing/ distempering of buildings	Once in a year
b)	Painting of doors, windows and other wooden members and structures.	i) Once in a year in Terminal Building and AAI Corporate Head Quarter Building. ii) Once in two years in other buildings and structures.
c)	Painting of steel door and window frames, grills and other components.	i) Once in a year in Terminal Building and corporate Head Quarters building. ii) Once in two years in other building and structures.
d)	Painting of CGI sheet wall, roofing, etc.	Once in two years.
e)	Grinding and polishing of mosaic, terrazzo, marble kota, granite flooring etc.	i) Once in a year in Terminal Building and corporate Head Quarters building. ii) Once in three years in other building and structures.
f)	Wax polishing of floors.	i) Terminal Building- Once in every six months. ii) Corporate and Regional Head Quarters building – Once in a year.
g)	Sheen polishing of floors.	Once in two years
h)	Cleaning of storm water drains/ sewer lines/ Over Head tanks/ Under ground sumps.	Twice in a year.

Electrical Works :

S.N	ITEM	FREQUENCY
a) i	Diesel generating plants	A,B,C,D & E checks as per manufacturer's manual
a)ii	Air-conditioning plants namely compressor, chiller, condenser, air handling units, cooling towers, etc.	Annual. Preferably after the summer season is over or as per the manufacturer's manual.
b)	Maintenance for HT/LT panels, transformers, switchgears, ground lighting system, equipment etc.	Annual or as recommended by manufacturers in equipment manual
c)	Replacement of runway, taxi-way, approach lighting cables	As and when based on the insulation resistance value. The minimum

	etc.	insulation value should be above 5 mega ohm during pre monsoon check.
d)	Testing of oils in transformers and circuit breakers and replacement of oil/cleaning of oil etc.	Once in a year.
e)	Measurement of insulation value of all electrical cables.	Once in a year.
f)	Descaling of chiller compressor, and air handling plants.	Once in a year.
g)	Maintenance of turbine pump shafts, and other connected assembly.	Once in a year.
h)	Maintenance of E&M equipment i.e. escalators, lifts, conveyors, aerobridges.	As recommended by manufacturer in equipment operational manual.
i)	Maintenance of GLF installation and power supply equipment.	As defined in AAI's Quality assurance manual for lighting facilities.

11.7.4 The periodical maintenance work shall generally consists of :

Civil Works:

S.N	ITEM	FREQUENCY
a)	Painting of runway, taxiway, aprons, etc.	As decided by Airport-in-charge.
b)	Maintaining of pavement joints.	Once in a year.
c)	Cleaning bushes and grasses along the sides of runway, taxiway, aprons, etc.	Once in three months.
d)	Cleaning bushes and grasses in the residential colony and non-residential area.	Once in six months.

Electrical Works :

S.N	ITEM	FREQUENCY
a)	Cleaning of Internal electrical fittings, pictographs.	Once in three months.
b)	Cleaning of runway fitting lens, filters.	Once in three months.
c)	Test and tighten all the bolts in night landing facilities installation.	Once in six months.
d)	Calibration of PAPI/VASI	Flight check along with glide path

		calibration
		Ground check once in a month
		Ground calibration at the time of new installation is must. Before declaring fully operational, flight calibration is recommended. However, system may be put to use after satisfactory report from pilots with NOTAM- 'not flight calibrated'. Periodical re-calibration of ground check of PAPI/VASI once in 15 days.
e)	Test and adjustment of angle setting in approach fittings.	Once in three months.
f)	Descaling of condenser	Once in six months.
g)	Greasing, tension adjustment of various moving parts in conveyer system, escalators etc.	Once in a month.

11.7.5 The day to day maintenance work will be carried out immediately as and when required and such maintenance and repairs services will normally include :

Civil Works:

- a) Repairs to leakage in water pipe lines.
- b) Repairs to leakage in sewerage lines.
- c) Repairs/replacement of water supply and sanitary fittings, glass panes, fittings of doors and windows etc.
- d) Repairs to security fencing.
- e) Repairs to roof leakage.
- f) Repairs to plastering and other minor damages to walls, floors, roofs etc.
- g) Repairs to potholes or other minor damages developed on pavements of runway, taxiway, apron, roads etc.
- h) Attending other day to day complaints about defects received from residents and airport officers.

Electrical Works

- a) Cleaning of all electrical equipments in Power House, Substation and air-conditioning and other panels in Terminal buildings and ancillary building.



- b) Check and record of the parameters in air-conditioning and generating set during operation.
- c) Replacement of worn-out fuses, Switch gears.
- d) Operation of power supply and stand by generating sets ground lighting facilities.
- e) Inspection of runway, taxiway, approach VASI/PAPI system before dark and replace worn out/fused lamps.
- f) Operation of air-conditioning system, Air Handling Units.

11.7.6 To avoid frequent tendering of each and every small job as far as possible minor maintenance works at an airport and also some works of urgent nature may be carried out through rate contract with specific approval of airport in-charge. This rate contract should be based on the rate contract finalised on the percentage rate over the scheduled items of DSR currently in use.

11.7.7 Procedure for reporting on maintenance/ safety checks  
Monthly by Engineer-in-Charge & Status report to be sent to SM/SM(SG)/DGM/GM by 7<sup>th</sup> of every month as per technical instruction issued from time to time.

## 11.8 **Procedure for allotment of funds and carrying out maintenance works**

11.8.1 The maintenance year will be reckoned from 01 April to 31 March of the next year. For each maintenance year, the Field Maintenance Units will prepare necessary estimates for the airport under their jurisdiction. The estimates have to invariably indicate :

- a) Items of works proposed to be done under annual maintenance and their cost.
- b) Items of work proposed to be done under periodical maintenance and their cost.
- c) For day to day maintenance throughout the year :
  - i) Requirement of skilled labourer and their trade.
  - ii) Requirement of unskilled labourer.
  - iii) Requirement of various construction materials and building materials.
  - iv) Anticipated cost of labourer and stores for the year.

11.8.2 During the month of August of every year each Airport In-charge shall work out the requirement of funds for all the Annual repairs and maintenance and minor



works to be carried out in the airport complex for the next financial year in consultation with the engineers available at the airport.

- 11.8.3 By 15<sup>th</sup> September of every year respective Airport In-Charge shall place his requirements of funds to the Regional Executive Director (NON-METRO AIRPORTS))/Airport Director (METRO AIRPORT).
- 11.8.4 By 31<sup>st</sup> October the office of Regional Executive Director (NON-METRO AIRPORTS))/Airport Director (METRO AIRPORT) shall finalise the details of works and shall compile the requirement of funds so received from various airports/units in consultation with Regional Engineering Heads and Regional Finance Directorate.
- 11.8.5 On approval of Revenue Budget the RED (NON-METRO AIRPORTS))/APD (METRO AIRPORT) will circulate details of such approved works and funds earmarked should be intimated by Regional Engineering Heads to Airport In-charges and field engineers latest by 15<sup>th</sup> February.
- 11.8.6 From 1<sup>st</sup> April of each year on placement of such funds the respective engineers of the regions attached to various airports shall thereafter accord the technical sanctions to the detailed estimates of various annual repairs and maintenance works in accordance with the powers delegated in the Delegation of Powers and shall initiate execution of the works. No separate administrative approval is required to be obtained for such AR & MO works till the total amount to be spent is within the funds allotted for the respective airport.
- 11.8.6.1 Before accepting quotations/tenders for A.R.M.O works, accepting authority shall obtain financial concurrence from the AM/Manager (F&A) posted locally at the respective airport.  
Financial concurrence covers the checks on the following parameters: -
- [i] Scope of work in tender is covered by technical sanction/ revised technical sanction.
  - [ii] Availability of funds.
  - [iii] Correctness of the scrutiny establishing the status of Lowest Tenderer (L1) as evaluated.
  - [iv] Availability of certificate from the Engg. Deptt. on the justified cost worked out.
- In case of difference of opinion regarding accord of financial concurrence, the case should be put up to the immediate next higher authority than the accepting one, for his decision.
- 11.8.6.2 For NORMAL, A.R.M.O. works at the airport where AM/M (F&A) is not posted, such financial concurrence shall be obtained by the accepting authority from Regional Accounting Unit.

11.8.6.3 For URGENT A.R.M.O. works costing upto Rs. 10,000/- each at the airport where AM/ Manager (Finance) is not posted, prior financial concurrence should be dispensed with. Such works should be undertaken by call of quotations and should be accepted by the multi disciplinary committee, constituted by the airport in-charge, consisting of the local engineer and two non-engineering officers. However, Airport-in-charge shall ensure that parameters stipulated in above paras are fulfilled and ex-post facto concurrence is obtained at the earliest.

11.8.6.4 Maintenance works need constant presence of the contractors and their representatives / workmen at airport site. It is, therefore, desirable that contractors are preferably from the same airport station so that airport in-charges/field engineers can have proper co-ordination with the contractor for ensuring immediate attention of such maintenance works. Thus, for the works falling within the technical sanction powers of Regional/ Field GM/JGM/DGM/SM/SM(SG) (Engg.) approved NIT should be sent to the Assistant Manager/Manager (Engg.) of the respective airport for calling tenders at airport itself. At the airports where AM/ME/SM/SM(SG)E/Asstt. GME is not posted, the approved NIT should be sent to the Airport In-charge for calling tenders. Tenders should be called at the airport and should be opened in the presence of Airport In-charge, available engineers at the airport, finance representative, if available or representative from any other wing. Within the 15 days of the opening of tenders, the tender documents, in original, with comparative statement and justification of rates, etc. should be forwarded by the respective Assistant Manager/Manager (Engg.) at the airport or by the Airport In-charge (where Assistant Manager/Manager(Engineering)is not posted) to the concerned SM/SM(SG)(Engineering) of the region for taking further action in award of work.

## 11.9 Fire Prevention Methods

The following amongst other Fire Prevention Methods in Terminal Building/ Associated ancillary building should be implemented :-

- i) All Electrical installation rooms should be provided with Fire extinguishers and the serviceability of these extinguishers should be physically verified by Assistant Manager/Manger (Engg.). The Deptt. of Fire should be responsible for total up-keep and functioning of the fire equipments.
- ii) The operation of Fire dampers of AHU's should be checked physically every month by Assistant Manager/Manager (Engg.)
- iii) The operation of Inter-locking arrangements in the AHUs, fire Blower Motor/fire Control Room should be ensured every month.
- iv) All AHU rooms should be kept locked, and the key should be available only with the operators/Engineers.
- v) The opening in the AHU rooms for the fresh air should be covered with a fine wire mesh.



- vi) All the power points to the window model A/C units shall use Metal Clad plug and sockets only and not ordinary open type power sockets.
- vii) All perishable/combustible materials should be kept away from the terminal building /Associated ancillary building;

#### 11.10 **Maintenance & Operation of Safety Devices of E&M Equipment and Services at Airports.**

In order to ensure safe and smooth operation of various E&M equipment and services at Airport, airport maintenance engineers and airport terminal managers shall ensure that following action are taken, implemented and incorporated in maintenance procedures: -

- i) List out safety devices provided by the manufacturer in each equipment/services such as Aeobridges, Lifts, Escalators, Conveyor Belts, fire Alarm & Fire Fighting System, Hand Driers, Electrical Panel Boards, D.G. Sets, Transformers etc. with indications of exact location of such devices incorporated in the equipment.
- ii) Prepare written document for methodology and operational sequence of each safety devices in reference to the likely emergency situation foreseen. Such documents are to be prepared for all equipments even if they are on maintenance contract with other agencies.
- iii) Define the frequency of carrying out physical verification of such safety devices detailing responsible officer for carrying out such verifications alongwith the equipment operators if available.
- iv) Maintain a register for safety checks for logging of safety verifications/test results by designated officer and get countersigned every month by controlling officer/Head of section.
- v) Carry out familiarization drill for all maintenance and operation staff including Fire Staff and other agencies working in that area viz. Customs Police etc. in operation of emergency safety devices in equipment/services under both conditions of operations i.e. normal and emergency.
- vi) Display information & operating instruction for safety devices near each equipment to be used in case of emergency.
- vii) Ensure that the equipment areas are brightly lit. Stand-alone battery connected Automatic Emergency Lamps should be provided and maintained near Control panels, Switch Room, Equipment room and Passenger movement areas near equipments such as Lift, Aerobridges, Escalator and Conveyor Belts, VIP Lounges and Retiring rooms etc.



- viii) History register for each equipment should be opened & maintained. All major maintenance services/check & incidents should be recorded in history register to provide as on date status of the equipment.
- ix) The documentation prepared and verifications for safety tests should be reviewed monthly by Airport In-charge and logged in service register.

#### 11.11 **Procedures to be followed in the Enquiry Offices (Service Centre) for Maintenance of Buildings of AAI.**

- i) Enquiry Offices (Service Centre) should be set up at each airport building and residential colonies by the respective Airport In-charge. The enquiry office should be provided with suitable furniture, cup-boards, racks, telephone and attached store room and toilet. An enquiry clerk should be posted by the respective Airport In-charge.
- ii) The enquiry office shall open at 8.30 A.M. in the morning and shall close at 4.30 P.M. in the evening or as per the schedule decided by the unit-in-charge.
- iii) The complaint register separately for Civil and Electrical complaints should be maintained at each enquiry office for recording complaints. Date and time of lodging of each complaint should be invariably recorded by the enquiry clerk. The complaint register should be maintained by the enquiry clerk.
- iv) Each recorded complaint should be assigned a serial number and the complainant should be intimated to the complainant for his reference.
- v) All maintenance complaints should be lodged by the complainants invariably to the enquiry clerk of the enquiry office.
- vi) A note book should be issued to every worker where the enquiry clerk shall enter the complaints, their serial number, house number and nature of complaints and the time of handing over the complaint.
- vii) The SA/SS/Jr. Exe. Engg In-charge of maintenance shall review the complaints recorded in the complaint register at least once a day. He shall invariably carry out personal inspections of all the complaints attended to ensure that the work has been carried out satisfactorily.

#### 11.12 **Records and Registers**

For proper accounting of stores and works and for better management of office works a number of records and registers are required to be maintained at various engineering offices. A list of such records and registers is given below:

S.N	NAME OF REGISTER	TO BE MAINTENED BY
1	Register of Administrative Approval & Expenditure Sanction.	Asstt Manager/ Manager / SM/SM(SG)'s office

2	Register of Technical Sanction	Asstt Manager / Manager / SM/SM(SG)'s office
3	Furniture ledger.	SA/SS/Jr. Exe's office
4	Register of measurement books.	Senior Manager's office.
5	Measurement book movement register.	Senior Manager/Manager/ Assistant Manager/ SA/SS/Jr. Exe's office
6	Work expenditure register.	Senior Manager/Manager/ Assistant Manager/ SA/SS/Jr. Exe's office
7	Pre –qualificaiton application register	Assistant Manager/Manager/Senior Manager's office
8	Register for sale of tender documents.	Assistant Manager/Manager/Senior Manager's office
9	Register of Security deposit.	Assistant Manager/Manager/Senior Manager's office
10	Register for earnest money.	Assistant Manager/Manager/Senior Manager's office
11	Tender opening Register	Assistant Manager/Manager/Senior Manager's office
12	Register of contracts	Assistant Manager/Manager/Senior Manager's office
13	Register of work orders	Senior Superintendent/ Assistant Manager/Manager/Senior Manager's office
14	Bill Register	Assistant Manager/Manager/Senior Manager's office
15	Register of supply order	Assistant Manager/Manager/Senior Manager's office
16	Survey report/Demolition Register.	Assistant Manager/Manager/Senior Manager's office
17	Stock ledgers for all stores	SA/SS/Jr. Exe / Assistant Manager/Manager's office.
18	Meter Register	SA/SS/Jr. Exe's office
19	Register of losses	Senior Manager's office.
20	Dismantle material register	SA/SS/Jr. Exe / Asstt. Mgr. / Manager
21	Complaint register	SA/SS/Jr. Exe / Asstt. Mgr. / Manager
22	Register for special repair	SA/SS/Jr. Exe / Asstt. Mgr. / Manager
23	Register for periodical repair	SA/SS/Jr. Exe / Asstt. Mgr. / Manager
24	Register of Handing over / taking over of building	SA/SS/Jr. Exe / Asstt. Mgr. / Manager

### 11.13 Responsibility for control over quality of work

The quality of work being executed should be inspected constantly to ensure adherence to the specifications and designs. The responsibilities of various authorities for control over quality should be as under:-

	Items	Authority responsible for inspection
I	Materials	
(i)	Sand, stone metal and chips, bricks, glass panes	SA/SS/Jr. Ex. Engg (C)
(ii)	Timber, paints, manufactured doors and windows, doors and windows frames and fittings, water supply sanitary fittings, fire fighting equipments, marble	AM/Manager Engg (C)
(iii)	Electrical fittings, DG Set	AM/Manager Engg (E)
(iv)	Air-conditioning Equipments, lifts escalators	SM/SM(SG) Engg(E)
II	Items of works	
(i)	Foundation upto plinth	AM/Manager Engg(C)
(ii)	Brick /stone masonry	SA/SS/Jr. Ex. Engg(C)
(iii)	Centering and shuttering for RCC work, reinforcement and concrete	AM/Manager Engg (C)
(iv)	Flooring, plastering and painting	SA/SS/Jr. Ex. Engg(C)
(v)	Joints in pipes, slopes and slabs of rooms, verandah and terrace etc.	AM/Manager Engg (C)
(vi)	General quality of work with particular reference to lines and levels /adherence to architectural details	SM/SM(SG) Engg/ Architect
(vii)	Laying of concealed or surface conduits, points boards etc. for electrical works.	SA/SS/Jr. Ex. Engg(E)
(viii)	Electrical wiring, switches, air conditioning ducts	AM/Manager Engg (E)
(ix)	Installation of elevators, escalators, Transformers installation of AHU	SM/SM(SG) Engg (E)
(x)	Centering and shuttering and reinforcement for Domes, Folded plates, Flat roof, coffer roof, shell roof, high rise structures	SM/SM(SG) Engg (C)

#### 11.14 **Maintenance of proper records for Works/Projects Execution:**

For proper control and quality of work, it is essential that test register and record of consumption of paint and primer are properly maintained therefore, field engineers should ensure that tests of materials are carried out strictly as per CPWD specification /contract agreement and the register for test results are maintained strictly as given in the said clause it should also be ensured that registers are maintained for each work to account for receipt of paints and primers and its use date wise with quantities used for different works to check the actual consumption of paints and primer as compared to theoretical requirements.

## 11.15 **Handing /taking over of charge of SA/SS/Jr. Exe Engg and AM/ME**

The following procedure should be followed for proper handing / taking over of charge by respective officers

- (a) An exhaustive note with comprehensive details of various works being executed and in the planning stage should be prepared as part of the handing /taking over note.
- (b) The outgoing official shall hand over the measurement books and level books with upto date measurements duly recorded and the quality of work certified.
- (c) The finalized and the half finished estimates, bills etc. should be completed and handed over with detailed note.
- (d) All necessary registers like T & P register, quality control registers, stores ledger, dismantled materials register, etc should be handed over.
- (e) Survey instruments, office equipments and other miscellaneous items should be handed over.
- (f) List of stores items held under the charge should be prepared indicating therein detailed description of items, sources and period of receipt, book values, present quantities and condition.
- (g) Physical verification of each document, items of stores, T & P etc. should be done by the relieving official before signing the handing /taking over document.
- (h) The above handing /taking over should be completed between the incoming and outgoing officials within a period of 7 working days. The salary for this period should be drawn for both the officials from the payroll of the respective station.
- (i) In case it is not possible to verify the store items of large magnitude like stool etc. within the above stipulated period, the same should be taken in charge based on the informations available as per the stores ledger/records and a note of this effect should be mentioned in the handing /taking over note stating that “the item has been taken over as per records pending physical verification to be completed within a period of three months”. The incoming official shall ensure physical verification of such stores within a period of 3 months of his taking over the charge and in case some discrepancy is noticed the same should be brought to the notice of AM/ME/SM/SM(SG)/AGM Engg in-charge for taking further necessary action. In case the physical verification is not carried out within 3 months and discrepancy is subsequently noticed or brought out by the official who has taken over charge after a lapse of 3 months period, the responsibility for such discrepancy in the stores shall rest with the relieving official only.



- (j) Each page of handing /taking over note and lists etc. should be signed by the relieved and relieving officer in token of their handing and taking over of the charges.
- (k) The incoming official shall send the handing /taking over notes to the Airport In charge, AM/ME, SM/SM(SG)/SM/SM(SG)G/AGM and DGM/JGM Engg.
- (l) The respective Airport Incharge shall relieve the SA/SS/Jr. Exe./AM/ME after ensuring that proper handing /taking over of charges, as detailed above, has taken place.

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## SECTION 12: MISCELLANEOUS

### 12.1. **Expenditure on Preparatory Works**

Where survey of site and / or determination of load bearing capacity of soil, CBR and K-value of soil, sub-soil observations/ survey/ consultancy are required to be undertaken before proceeding with the main project, the expenditure on these works shall form part of the main project and can be undertaken after obtaining approval of A/A & E/S authority, if A/A & E/S authority is higher than Member [P], then approving authority should be Member [P]. In case A/A & E/S of the main project is expected to be delayed, then these works may be undertaken charging the expenditure to the provision of the concerned project in the annual budget.

### 12.2 **Expenditure on laying of Foundation Stone and Inauguration Ceremonies**

All expenditure towards laying of foundation stone and inauguration ceremonies of the project should be charged to the contingencies of the project concerned. Member [Planning] should be the authority to accord approval of the expenditure on these accounts.

### 12.3 **Register of Building**

Every Airport In-charge shall maintain a register of building upto date. For maintaining the register airport In-charge shall take help of engineers posted at the airport. This register shall indicate brief details of the structures, year of construction, initial book value, and works done in each year with amount spent on it. At the end of every financial year airport In-charge shall record a certificate that the register is maintained upto date. DGM/JGM, Engg.(C/E) during the inspection of the airport shall examine this register to verify that it is being posted and maintained upto date.

### 12.4 **Safety of Structures / E&M equipment**

12.4.1 All buildings/structures are required to be inspected once in a year by the Manager Engg /Assistant Manager Engg posted at the airport to ensure that the building/structures are not unsafe for use. In case of electrical and other installations Manager Engg. (E)/Assistant Manager Engg. (E) shall inspect the same and record a certificate to this effect. The Senior Superintendent (Engg.) posted at the airport are required to inspect such structures and installations twice a year and record a certificate to this effect.

12.4.2 In case of any deficiencies found in the structures/installations, necessary report should be made to higher authorities and immediate steps should be taken to get the same inspected by Senior Manager [Engg.] for further actions taken to remedy the defects. Senior Manager [Engg.] shall also inspect important structures once in a year. He shall bring to the notice of his DGM/JGM [Engg.] the case where he has

reasons to doubt the structural soundness of any building/structure. On receipt of such report, DGM/JGM, [Engg.] will take such actions as he considers necessary.

12.4.3 Safety devices of E&M equipment should be checked and verified good for operation every month by the engineering head at the airport and compliance report sent to the Airport- -in-charge / RHQ by 7<sup>th</sup> of every month. Any deficiency noticed must be notified and immediate action should be taken to rectify the same. On receipt of such report SM/SM(SG) / DGM / JGM [Engg.] shall take actions considered necessary.

## 12.5 Disposal of Structures/Equipment

12.5.1 When a structure is proposed to be dismantled, a survey report (Proforma is at **Appendix-15**) should be prepared and submitted for the approval of the competent authority as per DOP.

12.5.2 Expected normal life of various equipment in use, at the airport should be governed by guidelines issued by Directorate of Material Management from time to time and the action should be initiated to get approval of competent authority, as per DOP, to write-off the equipment.

12.5.3 Fixing of Reserve Price

12.5.3.1 [a] For Building/Structure: -

Reserve price should be fixed by taking into consideration the life and condition of the building subject to the minimum as under:-

- i) 6% of the value of the building portion on the basis of current cost of replacement thereof.
- ii) 25% of the value of electrical and water supply installations on the basis of their current costs of replacement.

**OR**

Cost of salvageable material minus cost of dismantling, whichever is lower.

[b] For Equipment: -

The reserve price of the equipment is to be fixed as per the guidelines laid down by Directorate of Material Management and Power to fix reserve prices should be as per DOP.

## 12.6 Powers for Acceptance of Tender for Disposal of Buildings

12.6.1 The structures then should be disposed off by call of competitive tenders/bids after giving wide publicity. The authorities competent to accept the highest bids should be as per the powers delegated in the Delegation of Powers vide no. SEC:1.1.37 dated 23<sup>rd</sup> April, 1999 as amended and from time to time.





12.6.2 In case of emergency, the structures should be disposed off as per DOP.

## SECTION 13: DEPOSIT WORK

### 13.1 **Definition of Deposit Work**

The term “Deposit work” is applicable to works of construction and repair and maintenance the cost of which is not met out of funds of AAI but being financed from funds from Govt. of India or other Public sector undertakings or Private Enterprises which may have to be deposited with AAI in the shape of Demand Drafts or cheques. Deposit work will be of three types:-

- (a) Major Works
- (b) Minor Works
- (c) Repair and Maintenance

### 13.2 **Preliminary Estimate:**

Except in case of repairs and maintenance, a requisition is required from local head of Govt. Department or competent authority of Public/Private Sector Undertaking of the airport concerned requesting for execution of major/minor works. Such estimate are to be prepared by SA/Sr. Supdt./Jr. Exec./AM/Manager Engg concerned given the probable cost of each item of work asked for, and got approved by the concerned SM/SM(SG) Engg. Estimates for repairs and maintenance are also to be prepared by SA/Sr. Supdt./Jr. Exec/Am/Manager Engg. These estimates shall include departmental charges leviable at rates given in **Appendix -16**. These estimates then are to be submitted to local Head of client organization at Airport.

### 13.3 **Administrative Approval:**

For every major/minor work of client department, concurrence of the competent authority of client department requisitioning the work should be obtained to the preliminary estimates of the work.

### 13.4 **Expenditure Sanction:**

Alongwith administrative approval for major / minor works or with the clearance of estimates of repairs and maintenance by the competent authority of client department, expenditure sanctions will simultaneously be issued by the said department and submitted to concerned SM/SM (SG) Engg (Civil/Elect) of AAI with a copy to SA/Sr. Supdt./Jr. Exec/AM Engg of the airport concerned as well as RAU/SAU. The issue of expenditure sanction is to ensure that the funds for work have been provided.

Note : The amount of administrative approval and expenditure sanction should include departmental charges leviable as indicated in above appendix.

### 13.5 **Deposit of Funds:**

13.5.1 Once the expenditure sanction has been issued by the competent authority of the client organization, immediate action will be taken by the local Head of the organization to deposit the fund by demand draft/cheque with the Regional Accounting Unit, AAI, with copy to SM/SM(SG), Manager/AM Engg.

13.5.2 The Engineering officers of AAI should decline to undertake the construction/maintenance of building not belonging to AAI until funds have been deposited by client department or unless special permission is given by the Competent Authority in any particular case.

### 13.6 **Technical Sanction:**

On receipt of administrative approval and Expenditure sanction of the competent authority detailed estimates will be prepared and the engineering officers of AAI will accord technical sanction in exercise of powers delegated to them in this regard up to the amount of technical sanction under intimation to RAU/SAU. The technical sanction should be given before work is actually taken in hand.

### 13.7 **Accounting Arrangements:**

When a deposit work is to be carried out by AAI, the concerned client department should advance the gross estimated expenditure which is payable by it in one lump sum unless specially authorized otherwise by Competent Authority of AAI. The amount received should be deposited in bank by RAU/SAU and be credited to the respective account code head against which will be debited all expenditure including departmental charges incurred up to the amount of deposit. A detailed account of deposit work (airport wise) will be maintained by both RAU/SAU and concerned SM/SM (SG) Engg. It may be noted that percentage charges leviable should be adjusted month by month as works expenditure is incurred by preparation of general vouchers by debit to deposit to respective account code head per contra credit to respective account code head income from other services.

A consolidated record of all the transactions of a month (airport wise) relating to all deposit work should be prepared by concerned SM/SM(SG) Engg. by 10<sup>th</sup> each month in form CPW/65 which after verification by RAU/SAU should be sent to the concerned client department who have advanced funds for deposit work latest by 20<sup>th</sup> of the following month.

Suitable amount of departmental advance for carrying out deposit works will be sanctioned by Regional Executive Directors (Non Metro/Airport Director (Metro) on the recommendations of concerned GM Engg. While releasing funds in recoupment of departmental advance it has to be ensured by RAU/SAU that funds to that extent is available with them against amount deposited by client department. Departmental advance granted for deposit work should not be mixed up with departmental advance granted for any other purpose.

## CHAPTER-IV

### WORKS ACCOUNTS

#### **SECTION 14: MEASUREMENT BOOKS**

##### **14.1 General**

- 14.1.1 The Measurement Book (MB) is the basis of all accounts of quantities, whether of works done by Contractors or by labourer employed departmentally or materials received. It should be so written that the transactions are readily traceable.
- 14.1.2 These books should be considered as very important engineering records for accounting purpose and maintained very carefully and accurately as these may have to be produced as evidence in a Court of Law, if and when required.
- 14.1.3 All the Measurement Books belonging to a Division, should be numbered serially. A register should be maintained (Proforma is at **Appendix – 17**) showing the serial number of each book on receipt, the Division / Sub-Division to which it is issued, the date of issue, date of its return to the Regional / Divisional office and date of its record after the required review in the Accounting unit has been completed.
- 14.1.4 A similar register should be maintained in the Sub-Divisional office showing the names of person i.e. Assistant Manager/Manager (Engg.) and / or SA/SS/Jr. Exe to whom the Measurement Books are issued.
- 14.1.5 The Measurement Books no longer to be used in the Sub-Division or with the SA/SS/Jr. Exe. (Engg) should be withdrawn promptly even though not completely written up and should be reissued, whenever required.
- 14.1.6 When the concerned engineer in-charge of the work or stores is transferred, he shall hand over the Measurement Books issued to him to his successor and these should be shown as received back from him and re-issued to the relieving officer. The transfer should also be recorded in the Measurement Book after the last entry in each book under dated signature of the relieving officer and relieved officer.

##### **14.2 Recording of Measurements of Books**

- 14.2.1 Each set of measurement to be recorded in the MB should commence with entries stating-
- i) In the case of bills for works done-
    - a) Full name of work as given in the agreement;
    - b) Situation of work;
    - c) Name of contractor.
    - d) Number and date of agreement;

- e) Date of written order to commence work;
- f) Date of actual completion of work;
- g) Date of recording measurements;
- h) Reference to previous measurements

ii) In case of bills for supply of materials-

- a) Name of supplier;
- b) Number and date of supply order/agreement
- c) Purpose of supply in one of the following forms as applicable to the case-
  - i) "Stock" ( for all supplies for stock purpose )
  - ii) "Purchase" for direct issue to the work ( full name of the work as given in the estimate may be mentioned ),
  - iii) "Purchase" for .... ( full name of work as given in the estimate) for issue to the contractor .....on.....,
- d) Date of written order to commence the supply,
- e) Date of actual supply,
- f) Date of recording measurements.

14.2.2 A suitable abstract shall then be prepared which should indicate in the case of measurement for works done, the total quantities of each distinct item of work relating to each sanctioned sub-head.

14.2.3 Short (Abbreviated) nomenclature of the items should be adopted for preparing abstract of cost in the measurement book and also in the bill form. The Engineer-in-Charge may use short nomenclature provided by CPWD with a mention of the same in the special conditions of form of contract. For items not available in the short nomenclature book of CPWD, short nomenclature should be prepared, got approved from Engineer-in-Charge. Whatever the case may be, it should be mentioned in the special conditions.

14.2.4 If the measurements are taken in connection with a running contract, a reference to the last set of measurements, if any, should be recorded. If the entire job or contract has been completed, the date of completion should be duly noted in the prescribed place. If the measurements taken are the first set of measurements on a running account, or the first and final measurements, this fact should be suitably noted against the entries in the Measurement Book and in the later case, the actual date of completion should be mentioned in the prescribed place.

14.2.5 All measurements should be recorded neatly and directly in the Measurement Book at the site of work. The signature of the contractor or his authorised representative should be obtained at the site of work and at the time the measurements are recorded in the Measurement Book. The recording of measurements elsewhere and copying them into a Measurement Book is forbidden.

- 14.2.6 Before taking any measurement of any work the Engineer-in-Charge or a subordinate deputed by him shall give reasonable notice to the contractor. If the contractor fails to attend at the time of measurements after such notice or fails to countersign or to record the difference within a week from the date of measurement, then in any such event the measurements taken by the Engineer-in-Charge or by the subordinate deputed by him, as the case may be, should be final and binding on the contractor and the contractor shall have no right to dispute the same.
- 14.2.7 Whenever the competent authority has permitted the use of a material of better/inferior specification and/or use of bigger/smaller size of material than that stipulated in the agreement in any item of work, the description and the sizes in the nomenclature of the item recorded in the measurement book should depict correctly the work done at site, irrespective of the fact whether such permission was accorded with or without a change in the rate of the item concerned. In such cases recording of the nomenclature of the item in the Measurement Book as given in the agreement will not be in order. In case of difference, the contractor may record his measurements on a separate sheet and submit to the department.
- 14.2.8 The entries in Measurement Book should ordinarily be made in ink. No entry should be erased. If a mistake is made, it should be corrected by striking out the incorrect words or figures and inserting the correction, the correction thus made should be initialled and dated by a responsible officer. The person recording the measurements should record a dated certificate “Measured by me” over his full signature in the Measurement Book.
- 14.2.9 The page of the Measurement Books should be machine numbered. Entries should be recorded continuously and no blank page left or torn out. Any pages or space left blank inadvertently should be cancelled by diagonal lines, the cancellation being attested and dated.
- 14.2.10 When any measurements are cancelled or disallowed, these must be endorsed by the dated initials of the officer ordering the cancellation or by a reference to his orders, initialled by the officer who made the measurements, the reasons for cancellation being also recorded.
- 14.2.11 On completion of the abstract, the Measurement book should be submitted to the Sub-Divisional Officer who after carrying out his test check should enter the word “Check and bill” with his initials & dated. The concerned official should then check the calculation of quantities in the abstract, and the bill in case of work carried out by contractor, and should then place the Measurement Book and the bill before the Sub-Divisional Officer who after comparing the two, should sign the bill and the Measurement Book at the end of the abstract. From the Measurement Book all quantities should be clearly traceable into the documents on which payments are made. When a bill is paid for a work or supplies every page containing the detailed measurements must invariably be scored out by a diagonal red ink line by the Finance Officer. When the payment is made, an endorsement must be made in red ink by the concerned Finance Officer, on the abstract of measurements, giving a reference to the number and date of the voucher of payment.



- 14.2.12 Any corrections to calculations or rates made in the Sub-Divisional or Divisional Office should be made in red ink and brought to notice of the Sub-Divisional Officer or Divisional Officer, as the case may be, and of the person recording the original measurements. In the case of final bills, payment should be deferred until the corrections have been accepted by the person making the measurements. All corrections made by the Clerical / Finance Officials should be in red ink.
- 14.2.13 When work which is susceptible to measurement is carried out by daily labour, similar plan should be adopted, the quantities of work done as shown on the Muster Roll being compared with the entries in the Measurement Book before payment is authorised.
- 14.2.14 Measurement Book should be sent only by Speed Post / Registered Post, Authorised Courier Company or by Special departmental Messenger.
- 14.2.15 Measurements should be recorded only by Senior Manager (Engg.), Manager (Engg.), Assistant Manager (Engg.) or SA/SS/Jr. Exe (Engg)-in-Charge of the work and to whom the Measurement Book has been issued for this purpose or other persons specially authorised by the local DGM/JGM (Engg.).
- 14.2.16 The officer accepting the tender for any work may stipulate for Assistant Manager (Engg) or Manager (Engg.) to record measurements or exercise 100% test check of measurement recorded for any item including those, which, owing to their situation, cannot be subsequently check measured or which have very high unit rates or which in the opinion of the officer, are important.

**SECTION 15: RECORD OF MOVEMENT OF MEASUREMENT BOOKS**

For the sake of uniformity in the AAI and to avoid losses of Measurement Books, which are important engineering record for accounting purpose, a record of movement of Measurement Book should be through a Challan in the proforma given below. Whenever the Measurement Book is required to be sent out of office, three copies should be made out and the Copy No. 2 and Copy No. 3 should accompany the Measurement Books to the consignee who will sign and return the Copy No. 2 to the consignor and will retain the Copy No. 3 in his office.

**Challan Form:**

COPY No. 1	COPY No. 2	COPY No. 3
No. _____ Dt. _____ M.B. No. _____ Total No. of Book _____ To whom sent _____ _____	No. _____ Dt. _____ M.B. No. _____ Total No. of Book _____ Name of sender _____ _____	No. _____ Dt. _____ M.B. No. _____ Total No. of Book _____ Name of sender _____ _____
Purpose for which sent _____ _____	Purpose for which sent _____ _____	Purpose for which sent _____ _____
	I acknowledge receipt of the above books.  Date _____	I acknowledge receipt of the above books.  Date _____
Initial of sender	Signature of receiver (To be returned to the sender)	Signature of receiver (To be retained by the receiver)



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**SECTION 16: IMPORTANT ITEMS FOR MEASUREMENT**  
**(To be read with para 14.2.16)**

16.1 Important works, within meaning of the above, include items which owing to the situation cannot be subsequently checked or which have very high unit rates. For guidance, these items are classified generally as below :-

16.1.1 Items of work which owing to their situation cannot subsequently be checked :-

- i) All works below ground level such as “RCC, Lean Concrete, Masonry, Steel work, etc., in foundation;
- ii) Fabricated steel work in columns, beams, etc. which are encased either in masonry or concrete.
- iii) Wood work, Iron work etc., hidden by ceilings, wall panelling or floor boardings.
- iv) Bitumen painting of roofs under roof treatment item.
- v) Water proofing compounds used in gauging cement.
- vi) Lines of pipes buried in floor or masonry in internal sanitary, water supply or drainage installations.

16.1.2 Items of work which are considered to have very high unit rates :-

- i) RCC Work.
- ii) Item in sunk ashlar stone or marble work, plain sunk or moulded in walls, columns, arches or domes.
- iii) Stone or marble work in wall lining.
- iv) (a) All wood work in chowkhats, frames or trusses whether in country, Indian or Burma Teakwood.  
  
(b) All joinery work in shutters trellis works, miscellaneous wood work, etc., whether in country, Indian Teak or Burma Teak wood.  
  
(c) All brass oxidised brass or other similar costly fittings of doors, windows, etc., where payable separately.
- v) (a) Steel work cut, hoisted and fixed or steel work fabricated hoisted and fixed.  
  
(b) Steel doors, windows, shutters, grills, etc.
- vi) Flooring, skirting and dado work in-site mosaic, terrazzo tiles, Shahbad stone slabs, Agra stone slabs, or marble slabs.
- vii) False Ceiling.

- viii) All sanitary fittings such as wash basin, sinks urinals, stall urinals, bath tubs and water closets.
- ix) (a) Storage tank items in water supply.  
(b) Sluice valves, fire hydrants etc., in water supply.  
(c) C.I. pipes and specials and their lead caulked joints in water supply.
- x) (a) Manhole, ventshafts, road gully chambers, syphons, manhole covers and frames.  
(b) C.I. inspection bends and chambers in C.I. Pipes drainage.

16.2 In case of supply of steel, the measurements should be recorded :-

- (i) On actual weight basis for bars 10mm dia. and below and
- (ii) On standard sectional weight basis for bars above 10mm dia. In the case of later the measurements should indicate the total number with length of bars in each bundle, total number of bundles, standard weight, running meter weight, of each bundle, total weight of all bundles, etc. The entry should not be a copy from the invoice issued by the firm. The issues will also be made in the same manner in the two cases.

## **SECTION 17: TEST CHECKING OF MEASUREMENT**

### **17.1 General**

- 17.1.1 The Assistant Manager (Engg.)/Manager (Engg.) must satisfy himself before passing a bill for payment or before submitting it to the SM/SM(SG)E/Asstt. GM for certifying the payment that the work or supply billed for has actually been carried out/completed in accordance with the claim preferred. He should personally inspect all works of any magnitude before authorising final payments in connection therewith.
- 17.1.2 In addition to the above, he is required to check measure the works in his charge as below. For the purpose of test check "Measurement means the corresponding monetary value of the measurement of work done. This, however, does not applying to levels in which case the test check has got to be based on the number of levels.
- 17.1.2.1 In case of works at headquarters of the AME/ME, he should check measure not less than 50% of the measurements recorded by his SA/SS/Jr. Exe (Engg) before any running bill is paid.
- 17.1.2.2 In case of works outside headquarters of the AME/ME, the Assistant Manager (Engg.)/Manager (Engg.) should check measure upto 50% of the value of work done before preparing final bills or before making payment to alternate running bills.
- 17.1.3 While test-checking the work, the Assistant Manager, Engg.(Elect.)/Manager, Engg.(Elect) should test-check 100% of all items of atleast one unit taken at random, besides test-checking isolated and individual items, in other units to bring the total extent of check measurement to the desired limit of 50%.
- 17.1.4 In the case of works, outside the headquarters of the Sub-Division, costing upto Rs. 25,000/- each, check measurements by the Assistant Manager (Eng.)/Manager (Engg.) need not be insisted upon. He will, however, have to accept general responsibility for the correctness of the bill as a whole.
- 17.1.5 The SM/SM(SG) /Asstt. GM (Engg.)shall test check 10% of the measurements recorded by his subordinates at least every third running bill for works at his headquarter and at least every fifth running bill for works outside his headquarter. In respect of final payment of works costing upto Rs. 5 Lacs at places outside the headquarters of a Division and in the case of works costing upto Rs. 2 lacs at the headquarters of the Division, the Senior Manager (Engg.)/Asstt. GM may in his discretion, authorise payment without any test check by him. He will, however, have to accept general responsibility for the correctness of the bill as a whole. Test Check of the Senior Manager (Engg.)/Asstt. GM shall also include at least 10% test check of the measurements of RCC items so as to ensure structural safety of building.
- 17.1.6 The individual items checked should be clearly shown in Measurement Book and

the result recorded by the officer concerned in the tabular form provided in the Measurement Book. The items thus checked should be attested by the dated initials of checking officer. The result of the test check will be indicated by the work “Satisfactory” or “Unsatisfactory” as judged at the time on merit of each case.

17.1.7 A test check statement should be prepared for and appended with the RAR/Final bill by AME/ME.

17.2 **Responsibility of officers recording /test checking measurement**

17.2.1 The officer who records/test-checks the measurements for an item of work will be responsible for the Quality, Quantity and Dimensional accuracy of the work he has measured/test checked.

17.2.2 In the case of supply of steel the Senior Manager (Engg.) shall test check 10% of the total consignments received in a month. Any consignment test-checked by Senior Manager (Engg.) should be checked by him 100% .Permitted variation between the quantities as per the suppliers bills and as received and accounted for in stock account, is 0.5% in the steel bars upto and including 12 mm dia and 1% in the case of steel bars of higher dia.

17.2.3 If in any consignment the variation on lower side exceeds the aforesaid limits, 100% check of the measurements by SM/SM(SG) (Engg.) should be carried out and detailed investigations into the reasons for the shortage recorded.

In order to regularise the loss due to this variation on lower side (shortage) during a year , difference in quantities as billed by the suppliers and paid, and the quantity received and accounted for whether on actual weight basis or on cross sectional weight basis, as the case may be , should be treated as “**losses on stock**”. The cost of quantity found short should be placed in “Misc P.W Advances”. For each such consignment the cost of quantity where found in excess should be deducted therefrom. At the end of the year over all shortage should be sanctioned by the competent authority under “Losses on Stock”. However, if the net results works out in excess (gain) the amount should be credited to “Revenue”

17.2.4 The standard sectional weights as indicated below should be applicable for the payment to contractors for steel bars for works executed.

Size (Diameter) in mm	Weight in Kg/m	Size (Diameter) in mm	Weight in Kg/m
6	0.222	25	3.855
8	0.395	28	4.836
10	0.617	32	6.316
12	0.888	36	7.894
16	1.579	40	9.869
18	1.999	45	12.490
20	2.467	50	15.424
22	2.985		



- 17.2.5 The weighing equipments used for weighing the steel should be kept properly calibrated and also checked at regular intervals.
- 17.2.6 The test check referred to above shall, as far as possible, be carried out before the payment is made.
- 17.2.7 The individual items checked should be clearly shown in the Measurement book and the result recorded by the Officer concerned. The items thus checked should be attested by the dated initials of the checking officer.
- 17.2.8 A collective record of all the checks carried out from time to time will be prepared in each measurement book in the following tabular form:
- (i) Date of Check.
  - (ii) Page recording measurements subject to test check.
  - (iii) Value of measurements checked.
  - (iv) Result of the check exercised.
  - (v) Dated initials and designation of the checking Officer.

The result will be indicated by the word “Satisfactory” or “Unsatisfactory” as judged at the time on merits of each case.

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## **SECTION 18: RECORDING MEASUREMENTS FOR EARTH LEVELLING WORK**

- 18.1 In case of levelling operations and earth work, measurements are required to be recorded in level books in addition to Measurement Books. The level books should be numbered, accounted for and handled like Measurement Books.
- 18.2 Before starting the earth work, original ground levels should be recorded in the level books in the presence of contractor or his authorised representative and should be signed by him and the Departmental Officer who records the levels. All the local mounds and depressions should be indicated clearly in the drawing and field level book and should be checked by Assistant Manager/Manager (Engg.) before levelling is started.
- 18.3 A suitable base line should be fixed with permanent masonry pillars at distances not exceeding 50 metres to provide a permanent reference line for facilitating check work. The base lines should be entered in the level/field book with coordinates. These base line/s should be maintained till final payment for the work has been made.
- 18.4 While recording levels, it should be ensured that the circuit is closed by taking final levels of the starting point or any other point, the R.L of which was previously determined. This procedure should be followed so as to ensure accuracy of levels taken, as these levels can be test-checked subsequently.
- 18.5 Plans showing the initial levels, location of bench marks and its reduced levels, should be prepared and signed by both the parties and attached to the agreement before commencement of work.
- 18.6 The Assistant Manager/Manager (Engg.) should exercise test check to the extent of 50% and the Senior Manager (Engg.) to extent of 10% where the value of this item of work exceeds Rs. 1.00 lakhs. The test check of the levels should be carried out independently by each Officer and readings should be recorded in the prescribed level books in the red ink against the old levels which should be neatly scored out wherever necessary. If the test-checking carried out reveals serious mistakes in the original levels, these should be rechecked. The test-check by an Officer should be as representative as possible for the entire work done.
- 18.7 On completion of work, the levels should again be recorded in the level book and the contractor's signatures obtained. These levels should also be test checked by the Engineers to the same extent as indicated above within one month of the date of completion of earth work and according to the procedure as laid down in the case of initial levels as indicated above. The formation levels as per final execution of the work should be compared with the proposed formation levels and work got rectified within permissible tolerance.
- 18.8 Every fourth running bill and the final bill should be paid on the basis of levels.
- 18.9 Intermediate payments can, however be made on the basis of borrowpit measurements. The Engineers should take care that the quantities thus assessed

are not in any case more than the actual work done.

- 18.10 In case of large scale levelling works involving both cutting and filling an accurate site plan should be prepared before the work is commenced. The portions requiring cutting and filling shall then be divided into squares and corresponding squares into filling which are complementary to the squares in cutting given in the same number. A table may be written upon the plan showing leads involved between the various complementary squares. This would form a lead chart of the work to be done. Before the work of levelling is commenced, the lead chart should be checked either by an Assistant Manager/Manager (Engg.) in presence of the contractor or his authorised representative and his signatures should be obtained on the same. This should form an integral part of the contract and should be duly signed by both the parties before commencement of the work. The quantity payable for earth work shall be lower of the quantity derived from cutting or filling. The payment for lead should be based on the lead chart prepared in the aforesaid manner.
- 18.11 In case of earth to be imported, the area from where the earth is to be imported, should be carefully predetermined before the start of the work and wherever feasible, average lead should be worked out. After this is determined, initial levels of area should be recorded alongwith the initial levels of the area to be filled. The levels should be properly checked during the progress of work and on completion, measurements of earth work should be recorded in both places to determine correctly the earth excavated and carted. Payment for the earth work should be made on the basis of the lesser of the quantity in filling or cutting. Distances between the two places should be measured correctly which should also be test-checked. Where the work involves huge quantity of earth work in embankment filling technical sanctioning authority may specify particular mode of measurement considering situations prevailing at site.
- 18.12 In respect of import of sweet earth required for horticulture operations, the quantity of good earth required is very small and there is no single source from where the agriculture soil is readily available. Also, good earth lifted by contractors for different works from the same source and as such it is not possible to take levels of the area from where the earth is imported. The payments in such cases will be made on the basis of levels of area where the earth is to be filled.
- 18.13 Similar procedure should be followed while recording measurements of disposal of earth.
- 18.14 In case of small works costing upto Rs. 1.00 lakhs, borrow pits measurements and stack measurements of earth may be recorded indicating clearly the place of borrowing or disposal, as the case may be, so that the distances can be verified.

**SECTION 19: REVIEW OF MEASUREMENT BOOKS**

**19.1 General**

19.1.1 All the Measurement Books in use in a Division should be, in the month of September every year, inspected by local engineering unit in the following respects:

- (i) To compare the books in use with the register of Measurement Books maintained and to note necessary corrections in the register.
- (ii) To see that no original sheet is torn out of a book nor any entry erased or disfigured and that the corrections made therein are initiated.
- (iii) To see that pencil entries are not inked over.
- (iv) To test check the accuracy of calculations and to ensure that the instructions regarding writing of Measurement Books, recording of measurements and their test check are being followed properly.

19.1.2 The defects, discrepancies, etc. noticed should be communicated to the Assistant Manager / Manager (Engg.) concerned and summarised in the following form in Measurement Book, which has been test audited:

Pages reviewed generally	Calculations selected by the Manager (F&A) for re-check		Defect & discrepancies noticed	Dated Signature of Manager (F&A)	Initial of SM/SM(SG) (F&A)
	Pages	Dated initials			

19.1.3 The Measurement Book completed and returned for record during the year should also be similarly examined prior to their final record.

**19.2 Loss of Measurement Books**

When a Measurement Book is lost or damaged an immediate report of the facts of the case together with an explanation of all parties concerned responsible for the loss should be made promptly to the Executive Director (Engg.), who is empowered to sanction the write-off of the lost or damaged Measurement Books. Such losses for write- off should be reported in the proforma as at **Appendix-18**. It is also necessary that the measurements in the lost or damaged Measurement Book should be re-constructed at the earliest.



## **SECTION 20: STANDARD MEASUREMENT BOOKS**

### **20.1 Purpose**

- 20.1.1 This Standard Measurement Books are maintained to record the measurements of permanent standing in a building and are required to be brought upto-date from year to year on the basis of additions, etc., to be made to the building during year. These are used for preparing the repairs and maintenance estimates and contractors bills for such works so as to avoid taking detailed measurements on each occasion.
- 20.1.2 The work of preparing these books will ordinarily be undertaken in accordance with the programme for each Sub-Division or such other suitable unit as may be fixed by the Divisional Officer.
- 20.1.3 All the Standard Measurement Books should be on Form CPWA-23A and should be numbered in an alphabetical series so as to be readily distinguishable from those assigned to ordinary Measurement Books.
- 20.1.4 These will be accounted for in the same manner as ordinary Measurement Books in a register.
- 20.1.5 A similar register (Proforma is at **Appendix-19**) will be maintained in each Sub-Division showing the books belonging to it and reviewed as done in case of the ordinary Measurement Books.

### **20.2 Writing of Standard Measurement Books**

- 20.2.1 These Standard Measurement Books should be written legibly in ink and certified as correct by a responsible Officer. These should be maintained very carefully and accurately as they may have to be produced as evidence in a Court of Law.
- 20.2.2 The Standard Measurement Books should either be written by the Assistant Manager/Manager (Engg.) himself or a SA/SS/Jr. Exe (Engg.) under his orders. Each set of measurements taken by the SA/SS/Jr. Exe (Engg.), should, however, be fully checked by the Assistant Manager/Manger (Engg.) and declared in writing in the book itself as finally approved by him for the purpose of preparing annual repair estimates and contractors bills for the work done. Until this is done, the book will not be assigned a number and will not be entered in the register of Standard measurement Books.
- 20.2.3 The Standard Measurement Books will be brought upto-date under the supervision of Assistant Manager/Manager (Engg.) with reference to the building or work concerned within on month of closing of the accounts of the estimate therefore.
- 20.2.4 The Senior Manager / Asstt. GM (Engg) are also required to exercise a check over the completion of Standard Measurement Books from time to time by personally examining each book atleast once a year. To this end, the programme of work should be ordinarily be as follows :-

- a) As soon after the close of the official year as possible, the Assistant Manager/Manager (Engg.) concerned will arrange for a personal examination of these books with a view to satisfying himself that they have been brought upto-date with reference to the additions, alternations or special repairs carried out in the building or works during the preceding year and ensuring their submission on such dates as may be fixed for the purpose for the inspection of the Senior Manager / Asstt. GM (Engg.).

20.2.5 A record of the results of the scrutiny referred to above should invariably be retained and produced, if required, during the inspection of DGM/JGM/GM(Engg.)/ Audit/Accounts Officer.

### 20.3 **Submission of Certificates**

20.3.1 A report should be made to the DGM/JGM (Engg.), so as to reach him not later than the 31<sup>st</sup> July of each year with copy endorsed to the concerned AM/Manager (Finance) certifying in clear terms :-

- (i) That all the Standard Measurement Books of the Division have been inspected by the Senior Manager (Engg.).
- (ii) That the entries made therein have not been tampered with.
- (iii) That all corrections due to additions or alterations to the building or work concerned have been carried out, and
- (iv) That the books are reliable with upto-date records.

20.3.2 When a payment is based on the Standard Measurements, the following certificate should invariably be recorded on the bill, in his own handwriting, by the Engineer preparing it :-

“Certified that the whole of the work billed for herein has been actually done and that no portion thereof has been previously billed for in any shape”.

## SECTION 21: BILLS FOR PAYMENT

### 21.1 Preparation of Bills

- (i) Before preparing the bill of contractor / supplier, the entries in the MB relating to the description and quantities of work/supplies should be scrutinized by the AM/Manager Engg and calculations should be got checked under his supervision. The bill shall then be prepared from the measurement book entries in one of the forms prescribed, as applicable, in each case.
- (ii) Full rates, as per agreement/supply order shall only be allowed if the quantity of work done or supplies made confirms to the specification. During the progress of the work running bills should be paid and part rates for the items should be allowed, if these are not completed in all respects, with due regard to the work remaining to be done and general terms of the agreement.
- (iii) In case of supplies, the payment is not permissible until the stores have been received and surveyed. In case payment has been permitted on production of dispatch document etc., the payment should be treated as advance against the final settlement on receipt of the stores.
- (iv) If the departmental materials are issued for completed items of a contract then necessary recoveries on account of the cost of the materials supplied to the contractor should be affected from each bill at the recovery rates fixed for the purpose.
- (v) Each bill should be accompanied by following statements; duly signed by AM/Manager Engg:-
  - (a) Test check Statement ( Refer **Appendix -20**)
  - (b) Part Rate Statement (Refer **Appendix -21**)
  - (c) Recovery Statement of departmental materials (Refer **Appendix -22**)
  - (d) Statement of Theoretical consumption of cement/bitumen (Refer **Appendix-23**)
  - (e) Form to accompany Running/Final Bills of Contractors

Note: Procedure of submission of form to accompany running / final bills of contractors is at **Appendix -24**

### 21.2 Forms of Bills:

The standard forms of bills and vouchers should be used for payment to contractors/suppliers .Their brief descriptions are given below:-

- (a) First and Final Bill: This form shall be used for making payments both to contractors for works and to suppliers, where a single payment is made for a contract on its completion (**Appendix -25&26**).

- (b) Running Account Bill: This form should be used for all running and final payments to contractors and suppliers including cases where advance payments are proposed to be made (**Appendix-27**). For lump sum contracts form as per **Appendix-28** should be used. Account of secured advances in form as per **Appendix- 29**, alongwith Indenture for secured advances as per **Appendix - 30** should be attached to the bill.
- (c) Hand Receipt: This should be used for all miscellaneous payments and advances for which none of the forms mentioned above is suitable (**Appendix-31**)

21.3

**Authorities to pass the Bill:**

The authorities to prepare, verify and pass the bills after observing the required test check and other formalities should be as under:-

S.N	Bills to be paid	Authority competent to		
		Prepare	Verify	Pass or payment
1.	Running and final bills of contractors or suppliers	SA/Sr. Jr. Exec. Engg	Supdt/ Engg	AM/Manager Engg SM/SM(SG)
2.	Petty payment from imprest for work done or supplies made	SA/Sr. Jr. Exec. Engg	Supdt/ Engg	Imprest Holder

## **SECTION 22: DOCUMENTATION OF ACCOUNTS**

All the accounts Registers detailed below should be maintained by the SM/SM(SG) if he is declared DDO and SA/SS/Jr. Ex./AM/Manager (Account) is posted in the Division.

### **22.1 Bill Register:**

A consolidated record of all the bills received from the AM/Manager Engg for payment in respect of works/supplies should be maintained in one register known as “Bill Register” in the office the executive Engineer/Project Manager in the form given at **Appendix -32**. The bills should be entered in the register strictly in order of receipt. The payments of the bills shall also be made strictly in order of their receipt.

The SA/Sr. Supdt./Jr. Exec/AM/Manager (Account) should ensure that the register is properly maintained and kept up-to-date in the Accounts Branch. The register should be submitted to the SM/SM(SG)/DGM/JGM Engg every month for his perusal and he will record in the register cases in which these instructions have not been followed.

### **22.2 Contractor’s Ledger:**

- (i) The accounts relating to contractors /jobs/supplies should be kept in form given at **Appendix –33** in a bound book known as “Contractors Ledger”. A separate folio or set of folios should be reserved for all the transactions with each contractor/supplier. The register should be indexed. For first and final bill of a work this account will not be maintained.
- (ii) The contractor’s ledger should be written and maintained up-to-date in the office of the SM/SM(SG)/DGM/JGM Engg. The ledger accounts should be closed and balanced monthly. The closing balance of each contractor’s account should be detailed so as to show, in respect of each separate works or account (stock or purchases) the amount outstanding, if any, under each of the three suspense accounts, i.e. (i) Advance Payments, (ii) Secured Advances and (iii) other transactions.
- (iii) The Account officer of the office of the SM/SM(SG) should be responsible for correctness of entries in the contractor’s Ledger and balances at the closing of the month.

### **22.3 Works Abstracts:**

The works Abstracts should be maintained in the office of AM/Manager Engg in a single sheet for each work as per the form given in **Appendix-34**. Copies of these should be sent regularly every month to the office of SM/SM(SG) for compilation of the monthly accounts.

## 22.4 Register of Works:

- (i) The permanent and collective record of expenditure incurred during a year, on each work estimated to cost more than Rs. 25,000/- should be maintained in the office of the SM/SM(SG) in the form given in **Appendix-35**, called “Register of Works”.
- (ii) The register of works should be posted monthly from works abstracts, separate folios should be assigned to each work costing more than Rs. 25,000/-
- (iii) Before submission of the monthly account to RAU/SAU, the register of works should be completed, revived by the SM/SM(SG) should be responsible for up-to-date maintenance of this register.

## 22.5 Material Accounts

22.5.1 Material can be purchased for maintaining stocks for requirements of various works-original and maintenance. These mainly fall in two categories:-

- (a) Materials issued to contractors for use in the works in respect of completed items of works.
- (b) Materials issued direct to works, when the works is done departmentally or by contractors whose agreements are for labour only.

22.5.2 The issue rates for the materials stipulated to be issued to contractors for the completed items of agreements shall include storage and other charges. The materials other than those stipulated in the agreement shall not be issued without the express authority of the SA/SS/Jr. Ex. Engg. Who shall specify in each case the “Issue rate” to be charged for the materials inclusive of delivery at the place where these are stored. However, in respect of party issues, not exceeding Rs. 500/- in any month for any one contract can be authorized by AM/Manager Engg.

22.5.3 “Materials-at-site Account” should be kept in the form given in **Appendix -36** for the materials issued direct to works. Where the materials are issued to work done departmentally or through a contract on labor rates only, the Materials-at-site Account should be maintained only if the estimated cost of the work is more than Rs. 1,00,000/-

## 22.6 Cement Register:

Cement register should be maintained for all the work by the SA/SS/Jr.Ex. Engg at site in the form given in **Appendix-37**. The cement will be kept in a godown constructed by the contractor for the purpose.

22.7 **Dismantled Materials Accounts:**

- (i) The numerical account of materials obtained from dismantlement of a building or structure, wherever not sold by tender or auction, should be recorded in the Measurement Book for record purposes. Without value. On the basis of these measurements, these should be taken in the “Register of Dismantled Material” in form at **Appendix-38**. The entries should be made by the SA/Sr. Supdt/ Jr. Exec. Engg and should be test checked fully by AM/Manager Engg. After entries are made in the register, those in the Measurement Book should be crossed by diagonal red ink line with a suitable note that these materials have been entered in the register.
- (ii) The dismantled materials will be used in the maintenance works as far as possible, and will be shown as issued to works accordingly in the register. The unserviceable material should be disposed of according to powers vested with various authorities of AAI.
- (iii) The un-disposed balance should be physically verified at least once a year by the AM/Manager Engg.

22.8 **Imprest Cash Amount:**

- (i) SA/SS/Jr. Ex. Engg independently posted in an airport and AM/Manager in other cases should be issued imprest of Rs. 5000/- to defray day to day petty expenses on works and establishment. Officers entrusted with such fixed imprests or temporary advances shall maintain and render accounts of their disbursement there form in the imprest cash from given in **Appendix-39** for final accounting or Recoupment.
- (ii) The amount of imprest should be entered in red ink in column 5, “total”. The date and manner of the remittance, and, if recouped by cheque, the cheque number should also be entered, column 3 being utilized for the later purpose. The disbursements from this imprest should be entered daily as they made. On the due date the account should be closed and balanced, the right hand half page being cut of and sent to the disbursing officer, and the counter foil retained by the imprest holder. The sums received, from time to time, in recoupment of the imprest should be entered in column 5 in the red ink.
- (iii) Temporary advances shall also be accounted for in this form, but the account of these advances should be quite distinct from those for permanent advances.

22.9 Accounts of all the works should be closed on 20<sup>th</sup> day of every month. Monthly accounts of works shall then be compiled in the Division office by 28<sup>th</sup> day of the month and consolidated monthly account should be sent to RAU/SAU concerned immediately so as to reach RAU/SAU by 5<sup>th</sup> of next month.

## CHAPTER – V

### CONTRACTS

#### **SECTION 23: CONTRACTS AND FORMS OF CONTRACT**

##### **23.1 What is a Contract**

23.1.1 When two or more persons have a common intention communicated to each other to create some obligation between them there is said to be an agreement. An agreement, which is enforceable by law, is a “Contract”.

23.1.2 According to section 10 of the Indian Contract Act. 1872 only those agreements are enforceable by laws which are made by the free consent of parties competent to contract, for lawful consideration and with a lawful object and are not expressly declared to be void. This is subject to any special law according to which a contract should be in writing and attested by witnesses.

23.1.3 The following are the essential ingredients of a contract:

- (a) Offer made by one person called the “Promisor”.
- (b) Absolute and unconditional acceptance of the offer made by the other person called “Promisee”.
- (c) Doing of an act or abstinence from doing particular act by promisor for promisee called consideration.
- (d) The offer and acceptance should relate to something which is not prohibited by law.
- (e) Offer and acceptance constitute an agreement, which, when enforceable by law, become a contract.
- (f) In order to make a valid and binding agreement, the party entering into such an agreement should be competent to make such agreement.

23.1.4 For the purpose of an agreement, there must be a communication of intention between the parties thereto. Hence in the forms of a Contract there is :

- (a) A proposal
- (b) Communication of the proposal
- (c) Absolute and unconditional acceptance of proposal
- (d) Communication of acceptance of the proposal



23.1.5 The communication of acceptance of the proposal completes the agreement. An offer may lapse for want of acceptance or be revoked before acceptance. Acceptance produces something which cannot be recalled or undone. A contract spring up as soon as the offer, is accepted and imposes an obligation upon the person making the offer. It has been opined by the Ministry of Law that before communication of acceptance of an offer the tenderer would be within his right to withdraw, alter and modify his tender before its acceptance, unless there is a specific promise to keep the offer open for a specific period backed by a valid consideration.

## 23.2 **Form to be used for Contracts**

The prescribed / approved forms should be used for the agreement with the contractors for the purpose noted against each. Standard clauses of the forms have been approved by the competent authority and should not be altered / violated on any account except with the prior approval of the authority. Special emphasis should be had to the due performance of the contract by the contractors in accordance with the terms and conditions of the contract and necessary safeguards, for instance provision for levy of liquidated damages, incorporated in the terms of the contract to ensure adequate compensation to AAI in the event of breach by the contractors

### 23.2.1 Percentage Rate Tender

Percentage rate tender could be used in respect of works falling under one sub-head or repetitive type of works where standard design and drawings are available, leveling and development works including such work as storm water drainage, water supply and sewer lines and repetitive types of works such as construction of residential quarters of various types as per standard design and drawing.

The decision to call percentage rate tenders, if any, should be taken as per CPWD procedure.

### 23.2.2 Item Rate Tender

For item rate tenders` contractors are required to quote rates for individual items of work on the basis of schedule of quantities furnished by the department. This form ensures a more detailed analysis of cost by the contractor and as such is more scientific. The contractors have to work out the rates against each item. The element of uncertainty and guess which is inherent in the use of Percentage Rate Tender is altogether absent in Item Rate Tender and the authority competent to accept the tender can always check the rates with reference to his own calculations and decide which of the tenders is suitable. Care, however, is needed in respect of likely variation in quantities.

### 23.2.3 Item Rate Tender for supply of Materials

The details stated above for Item Rate Tender is also applicable for Item Rate Tender for supply of Materials

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#### 23.2.4 Piecework Contract Form

This form is to be used

- (i) For work costing less than Rs. 60,000/-
- (ii) In cases in which it is necessary to start the work in anticipation of formal acceptance of contract, and
- (iii) For running contract i.e those for pipes, laying of sewage etc.

In cases of (ii) above, the piecework contract is cancelled as soon as regular contract is signed.

In case of (iii) above, quotations are called periodically and a running rate contract is drawn up as a result of those quotations usually for 1 year. The piecework contract form provides for payment of stipulated rates only when it refers to such quantity of time and also stipulated that the Engineer –In-Charge may put an end to the agreement at his option at any time.

#### 23.2.5 (A) Work Order

This form may normally be used for works costing Rs 6.00 lakhs and below. It is not much different from piece work contract form but any work awarded on work order form may be stopped by Engineer-in-Charge at any time and the contractor is also entitled to stopped the work at any time, and when it is not considered necessary to draw agreement in piece work.

It is not much different from Item rate Tender, but any work awarded on Work Order may be stopped by the Engineer-in-Charge at any time and the contractor is also entitled to stop the work at any time without being required to pay any compensation.

#### 23.2.5 (B) Work Order

This form may be used for small works costing less than Rs 6 lakhs where it is not considered necessary to use regular Percentage Rate Tender, Item Rate Tender and lump sum contract at the same time it is desired to bind the contractor in respect of the quantity of the work and the time in which it is to be completed.

Before awarding works on works orders form the contractor should be asked to furnish a list of AAI employees related to him.

Note : Form of Work order is at **Appendix-40**

#### 23.2.6 Lump-sum Contract

This form, as its name indicate, is used for work in which contractors are required to quote a lump-sum figure for completing the works in accordance with the given

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designs, drawings, specification and functional requirements, as the case may be. Lump –sum tender can be either for only executing the work as per given design, drawing and specification or it may include element of doing design work and preparation of structural drawing as well, which should be in keeping with the given functional, structural and architectural parameters and subject to approval by the competent authority before hand. Normally, lump-sum tenders may be called for following types of works.

- (i) Bridges/hangars
- (ii) Overhead tanks
- (iii) Bins/Silos
- (iv) Chimneys
- (v) Repetitive types of work like residential type quarters
- (vi) Specialised equipment and construction.

In case, work is to be executed as per design and drawing of the department, all the detailed working drawings, both architectural and structural, must be prepared before hand and should form part of the tender documents which should also contain complete and detailed specifications of the work. The tender documents must set out complete scope of the work and if felt necessary, a rough schedule of quantities based on the relevant design, drawing and specification, may be appended to the tender for guidance. It should, however, be made clear in the tender documents that only the drawings and the detailed specifications as contained and/or referred to in the tender documents shall form the basis of execution and payment and not the schedule of quantities which is given for guidance, to the tenderers. The extra payment or recovery over and above the accepted rate shall, therefore, be called for only in the event of authorised deviations from the drawings and specifications (as given and/or referred to in the tender documents) in course of execution and not otherwise.

In case, the detailed architectural and structural drawings are to be provided by the contractor, all the architectural and structural data/ parameters necessary to work out the cost of the work, details of the functional requirement and complete/detailed specification thereof including preliminary drawings, if any, must be finalised before call of tender and the tender documents must contain all these details so that there is little scope of guess-work on the part of contractor while tendering and chances of dispute at a later stage are minimised. A condition should be stipulated in the tender documents that the work should be executed as per detailed design and architectural/structural drawing to be prepared by the successful contractor conforming to the given parameter and functional/design requirement as enunciated in the tender documents and submitted to the department within specified time after the award of work. The contractor shall accordingly, get the design/drawing approved by the department before taking up execution of the work. In case any modification for any reason is ordered in the course of execution, suitable adjustment for extra payment or recovery should be effected only if such modification results in change in the scope of the work as given in the tender documents or any change from the specified parameters.



23.2.7 Demolition of Buildings

This form of the tenders is adopted for demolition of buildings and removal of debris from site. Other forms of contract are; -

- Supply of equipment and machinery
- Consultancy contract
- Service Contract
- Supervision and Quality control

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## **SECTION 24: AWARD OF WORK WITHOUT CALL OF TENDERS**

### **24.1 Procedure**

24.1.1 Works costing below Rs. 2.00 lakhs should be executed through call of quotations.

As regards the works / supplies, the exception is to be made where the procurement / work is to be obtained from the manufacturers / authorised dealers for the equipment / spares / services such as servicing & overhauling / special repairs to the equipment, quotations may be obtained directly on the basis of NIQ. The above monetary limits are not applicable in these cases. The cases should be processed for award of work after establishing justified cost. Towards guarantee / warranty obligations, security deposit should be obtained in the form of Cash (recoverable from running payments) / Bank Guarantee. Where more than one authorised dealer exists, the competitive quotations / sealed spot quotations against NIQ be obtained and the cases processed for award as per the delegated authority prescribed in DOP. Procurement entity shall request quotations from as many suppliers or contractors as practicable but positively from at least three suppliers/contractors. Each supplier or contractor from whom a quotation is requested, shall be informed whether any elements and other than the charges for the goods themselves, such as, transportation and insurance charges, duties and taxes are to be included in the price

24.1.2 Urgent works like break down in services, works connected with security, VIP movements, operational urgency etc. costing upto Rs. 50 lakhs may be executed without call of tenders by call of quotation or by negotiation ab-initio after call of in-fractuous tender or with a firm that has not quoted after approval of the competent authority as per powers delegated. The precise nature of the emergency involved should be recorded by the SM/SM(SG)E before dispensing with call of tenders for works costing more than Rs. 2.00 lakhs.

### **24.2 Powers**

24.2.1 Quotations may be called in case of exigencies with approval of authority within the ambit of DOP.

## **SECTION – 25: PREPARATION OF TENDER DOCUMENTS**

### **25.1 General**

25.1.1 A valid tender is an offer. It is something, which invites and is communicated to notify acceptance. Broadly stated, the following are the requisites of a valid offer.

- (a) It must be unconditional.
- (b) It must be made at proper place.
- (c) It must conform to terms and obligations.
- (d) It must be made at the proper time.
- (e) It must be made in the proper form.
- (f) There must be reasonable time for inspection.
- (g) The person to whom a tender is made must be willing to perform his obligations.
- (h) Tender must be made to the proper person.
- (i) It must be of full amount of the scope for award of work

25.1.2 Before tenders for a work are invited, a detailed estimate showing the quantities, rates and amounts of the various items of work and also the specifications to be adopted should be prepared and sanctioned based on the architectural drawings. The final authority to decide on the specifications is TS authority.

25.1.3 In the case of urgent works, when there is no time to prepare a complete estimate, rough quantities and rates for the main items of that part of the work for which tenders are called and which cover the major part of cost should be worked out before tenders are invited and adopted for the purpose of comparison.

25.1.4 In case of works for which tenders are to be invited, tender documents comprising of the following should be prepared and approved by an authority who is empowered to approve the NIT before notice inviting tender is issued:

- (i) The notice inviting tender
- (ii) The form of tender to be used along with a set of conditions
- (iii) The schedule of quantities of work
- (iv) A set of drawings referred to in the schedule of quantities of work
- (v) Specification of the work to be done
- (vi) Essential architectural drawings and adequate structural drawings for commencing the work together with specifications are to be made available to the contractors at the time of inviting tenders.
- (vii) Special conditions

### **25.2 Invitation of Tenders for Component Parts**

25.2.1 Generally, splitting of works for the purpose of inviting tenders should not be resorted to unless approved by technical sanction authority. However, due to administrative convenience and expediency, works may be split and tenders may be invited separately for the split portions as per powers delegated. Work can also be split according to their specialised trade.

- 25.2.2 Accord of technical sanction and call for tender for component parts of the project, the amount of which appears as a distinct sub-head in the Preliminary Estimate will not amount to splitting the work and can be dealt with by the respective authorities as per powers delegated even if the overall amount of the project may be beyond the competence of any individual authority.
- 25.3 **Composite Tenders**
- 25.3.1 Composite tenders should be invited only wherever felt necessary, with the approval of respective T/S authority subject to availability of detailed architectural drawings including various components of building to ensure better co-ordination.
- 25.3.2 Turnkey tender should be invited only with the specific approval of Member (Planning).
- 25.4 NIT approving authority may decide necessity of conducting pre bid meeting considering the nature of job.

## SECTION-26: PUBLICITY OF TENDERS

### 26.1 General

26.1.1 Tenders must be invited in the most open and public manner possible, whether by advertisement in the press or by notice in English/Hindi and the written language of the district, pasted in public places. Wide publicity should, therefore, be given to the Notice Inviting Tenders including release on AAI Website. A copy of the notice should be sent to the other Divisions and the DGM/JGM.

26.1.1.1 A tender notice does not amount to an offer or proposal but merely an invitation to the contractor for making an offer. An advertisement for tenders is not a proposal, which would bind the authority to sell to the person who makes the highest tender. It is merely an attempt to ascertain whether an offer can be obtained within such a margin, as the seller is willing to adopt. The advertisement calling for tenders, therefore, is not a proposal within the meaning of the Contract Act, but it invites a proposal

### 26.1.2

- (a) In addition to the existing rules and practices regarding giving publicity of tenders through newspapers, trade journals and providing tender documents manually and through post etc. the complete bid documents application form should be published on AAI's web site of the organisation. All the documents upto date should remain available and should be equally legally valid for participation in the tender process as manual documents obtained from the department through manual process.
- (b) The complete application form should be available on the web site for purposes of downloading and application made on such a form should be considered valid for participating in the tender process as stipulated in the NIT.
- (c) Web site address must be given in the advertisement / NIT published in the newspapers.
- (d) Charges for the application form downloaded from the computer may be asked from bidding party by demand draft at the time of submission of the application form and bid documents.
- (e) Efforts should be made to eventually switch over to process of e-procurement/e-sale wherever it is found to be feasible and practical.
- (f) This would also apply to tenders for which estimated cost put to tender is more than Rs. 2 lakhs and upto Rs. 10 lakhs, where press notifications are not required.

26.1.3 In respect of works estimated to cost above Rs. 10.00 lakhs, a brief advertisement inviting tenders should invariably be inserted in the press as in **Annexure-2** in this section.



- 26.1.4 Works costing more than Rs. 2.00 lakh and upto Rs. 10.00 lakhs should be executed through call of tenders from the approved and pre-qualified list of contractors /suppliers which is to be finalized by wide publicity through news paper advertisement and on AAI's Web site. This list will be valid for 2 years from the date of approval of short listing. Display in web site is required for individual work for short-listed agencies.
- 26.1.5 Sometimes, tenders may have to be invited for different works by the same division at the same time or at short intervals of one or two days. In such cases, it is not desirable to send separate press advertisements for each work and so far as possible composite advertisements should be sent to avoid unnecessary expenditure on advertisement.
- 26.1.6 The following guidelines are to be followed by the SM/SM(SG)E/Asstt. GME regarding publicity of tenders:
- (a) Request for release of advertisement should be sent well in advance so that adequate time is available for release through Press.
  - (b) A watch should be kept on publication of advertisement in those newspapers where advertisements are being released.
  - (c) Newspaper cuttings in each case should be collected and kept on record as a proof of publicity actually achieved as far as possible.
  - (d) Full details of the dates on which advertisements have actually appeared in the Newspapers should be indicated while sending cases to higher officers.
- 26.1.7 Global tenders may be invited for highly specialised works for equipment and consultancy for special designs with the limited tender approval of competent authority as per D.O.P.
- 26.2 **Pre Bid Conference:**
- NIT approving authority may decide necessity of conducting pre bid meeting considering the nature of job. Minutes of the meeting shall be circulated to all prospective tenders.
- 26.3 **Limited Tenders**
- 26.3.1 Call of Limited Tenders for Works: Limited tenders can be called for, on the following grounds.
- (i) The work is required to be executed with very great speed which not all contractors are in a position to generate (to be decided by A/A Authority)
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- (ii) Where the work is of special nature requiring specialised equipment which is not likely to be available with all contractors; (to be decided by T/S Authority) and
- (iii) Where the work is of secret nature and public announcement is not desirable (to be decided by A/A Authority).

26.3.2 Generally contracts should be placed only after open tenders have been invited. However, where open tenders are not invited contract/purchase is effected by limited tenders, the specific reasons for so doing should be recorded and prior approval in writing from the competent authority as per D.O.P. to accept the tender should be obtained.

26.3.3 The Directorate concerned will issue limited tender inquiries to firms of repute and competence. These inquiries may be made to the parties whose credentials are verified with the help of pre-qualification bids called once in three years by the EDs at CHQ/REDs (NON METRO) APDs (METRO AIRPORT). However, in the absence of this process the Whole Time Member concerned should be empowered to approve the list of parties for limited tender action.

26.3.4 It is the duty of the Sr. Supdt/Supdt./Sr. Asstt (Office) of the Issuing Division to ensure that all NITs remain on the notice board of the Division from the date of issue of NIT to the date of opening of tenders. For this purpose, he should record a certificate to the effect on office copy of each NIT. The SM/SM(SG)E should check such certificates from time to time. Inspecting Officers from Circle Offices and Central Office may also check the notice boards and office copies of the NITs for requisite certificates-

26.4 **Time Limit for Publicity of Tenders**

26.4.1 The following time-limits between the date of call for tenders and the date of opening of the tenders are laid down but this period may be varied at the discretion of the Officer competent to accept the tender. However, any reduction in the time specified should be effected only in rare cases and the authority ordering reduction will record reasons for the same: -

Time period for call of tender may be as below:

Activity	For Works of Estimated cost	
	Up to Rs. 5 crores	Above Rs. 5 crores
Last date of receipt of application after press notice	11 – 15 days	21 – 30 days
Submission of tenders after issue of tender	11 – 15 days	21 – 30 days

In the case of works estimated to cost above Rs. 10.00 lacs, a brief advertisement inviting tenders shall in variably be inserted in the press.

The above time limits will not apply to global tenders and in such cases specific decision should be taken for fixing the period.

26.4.2 If the response to tenders from the contractors of the appropriate classes is poor, the tender may be thrown open to the contractors in the next lower class with the prior approval of the next higher authority but not to favour a particular contractor. In urgent cases, the DGM / JGM can approve issue of tender to next lower class in anticipation of approval but he should get the matter regularised immediately. It should also be noted that where a tender is thrown open to contractors of the lower class, it should get the same publicity as the notice inviting tenders. If the response to tenders from the contractors of the approved classes is poor, the tenders may be thrown open to the contractors two categories below the appropriate class in individual cases with the prior approval of the next higher authority.

## 26.5 **Formalities for Re-Invitation of Tenders**

26.5.1 In case of re-invitation of tenders, all the formalities followed originally should be followed. In cases when the date and the time for sale and receipt of tenders is required to be extended due to unavoidable circumstances, a proper notice for the same will be put up on the Notice Board.

26.5.2 Whenever it is decided to reject the tenders received for particular work and recall thereof, the reasons for rejecting should be recorded and duly approved by the authority competent to accept that tender.

26.5.3 While assessing and deciding to accept a tender on recall, the most favourable cost of the tender during the second call should be compared in detail with the most favourable cost of the tender of the first call. Such comparisons should be made in the proforma given in **Appendix-41**. Reasons for difference in the total cost of tender on re-tendering as compared to first call should be properly examined and recorded before accepting the tender by the competent authority.

## 26.6 **Purchase Preference**

Purchase Preference will be given to CPSEs or other similar bodies in conformity with the Government Policies in vogue.



## Annexure –2

**PROFORMA FOR BRIEF PRESS ADVERTISEMENT FOR WORKS COSTING**I. ABOVE Rs. 10.00 LAKHS TO Rs. 500 LAKHS (5 CRORES)**TENDER NOTICE**

Airports Authority of India invites sealed ----- rate for the work of “-----  
-----” at an estimated cost of Rs. ----- with period of  
completion ----- months. Last date of receipt of applications is ----- .

For further details refer AAI Web site [www.aai.aero](http://www.aai.aero) and [www.airportsindia.org.in](http://www.airportsindia.org.in)

II. ABOVE Rs. 500 LAKHS (5 CRORES)**NOTICE INVITING APPLICATION FOR SHORT LISTING OF CONTRACTORS**

Airports Authority of India invites applications for short listing for the work of “-----  
-----” at an estimated cost of Rs. -----  
with period of completion ----- months. Last date of receipt of applications is ----- .

For detailed information log on to website  
[www.aai.aero](http://www.aai.aero) and [www.airportsindia.org.in](http://www.airportsindia.org.in)

## **SECTION-27: SALE OF TENDER DOCUMENTS**

### **27.1 General**

27.1.1 Approved draft tender documents should be prepared and kept ready for sale to the contractors before the date of issue of tender document and every contractor desiring to participate in tender should be asked to make a written application. It is the responsibility of the SM/SM(SG)/Asstt. GM to see that tender documents are made available to the contractors as soon as the application is made.

27.1.2 For recorded reason the ED Engg is competent to permit any particular person or firm, who are not borne on the approved list of CPWD or any other Government Department to tender for specialised works. Specialised firms should not be insisted for registration with any other department.

### **27.2 Issue of Tender Documents for Specialised Jobs**

In order to obviate difficulty to get competitive rates in respect of all specialised jobs it is necessary that the tenders for specialised works should be issued to the firms concerned who deal in the items of works for which tenders are being invited in addition to registered contractors. For this purpose, the following items should be taken as special items of work.

### **27.3 List of specialised Items/Jobs/Works**

#### **A. Civil works**

- (i) Carriage of Materials
- (ii) Earth works
- (iii) Termite proofing (Anti-termite Treatment work)
- (iv) Water proofing treatment work
- (v) Stone work including wall/column cladding
- (vi) Marble work
- (vii) Wood work : Flush Doors, Panelling of walls, Iron grills or ornamental type.
- (viii) Steel work : Collapsible steel gates, Sliding steel shutters, Rolling steel Shutters, Steel doors and windows, Tubular trusses (not ordinary steel trusses), Steel bridge work, space frames for long span structures, Steel towers for flood lighting in stadia (upto height 50m)
- (ix) Flooring : Mosaic and Terrazzo tiles flooring, marble flooring, ceramic tiles, granite or any other polish stone of flooring.

- (x) Roofing : False ceiling, water proofing of roofs and providing special roofing.
- (xi) Roads/ Pavements : Asphaltic/ Cement concrete works for roads and runways, sealing compound, runway marking paint
- (xii) Furnishing : Items of furnishing, like pillows in foam rubber, pillow covers, Bed sheets, Curtains and Rubber Mats, carpet, Aluminium glazing.
- (xi) Miscellaneous civil works : Works such as under reamed piles, Foundations and pile foundation Tanking for basements, Fibrous plaster ceiling. Acoustic treatment and other decorative items such as glass ceiling, sinking of tube wells, Erection of food storage – both slips and flat type. Aluminium doors and windows, Aluminium cladding, curtain wall/structure glazing/frameless glazing, Fire alarms, Fire fighting equipments, Fire detection and any other co-related items. Design fabrication and erection of steel towers, fabrication of hydraulic platform and incinerator and laundry equipment. Fabrication of steel cabin of body of trucks chassis. Water and sewage treatment plants.

B. Electrical Works – Miscellaneous

Power supply works like HT and LT Switch-gears, Transformers, AMF Generating sets etc. Air-conditioning works like supply and installation of chilling units, AHUs and connected works, cold storage plant. E&M equipments like elevators, escalators, baggage conveyors, aerobridges etc. internal AAI works including supply and installation of various luminers. Airport lighting works including runway/Taxiway/ Approach lighting system and connected works including High Mast lighting.

C. Any other work approved by ED Engineering.

27.4 **Procedural Requirement**

27.4.1 It should be made very clear in the Press Notice and NIT that previous experience in the execution of such works (Specialised items of works concerned) is necessary, details of which should be appended by the Contractor. Besides, the contractor should possess the necessary special T&P for proper execution of job.

27.4.2 In order to get competitive rates in respect of all specialised jobs, it is necessary that the NITs [notice] for specialised works should be sent to the firms while inviting tenders for the above type of works, the tender should be issued to the specialised firms as well as to the registered contractors of the Department.

27.4.3 In the case of some specialised job, by specialised firms, Guarantee Bonds are also required to be executed viz. water proofing works and Anti-termite Treatment. The Guarantee Bond form is reproduced in Appendix-42.

- 27.4.4 Where jobs of a specialised nature are involved, the concerned officers should satisfy themselves that the persons selected to tender and award the work, is well experienced and knows about the job. If there is no such men available conveniently then the Engineer in-Charge should familiarise himself with the job and its process, obtain appropriate market intelligence regarding the competent persons available in the field, the rough cost of their goods or work before preparing the estimate or inviting tenders and where the tender is not advertised one. They should also write to the parties concerned so that they may also get a chance to respond to the enquiry.
- 27.5 **Enlistment of contractors for works costing up to Rs. 10 Lakhs**
- 27.5.1 Contractors should be enlisted in AAI for particular airport/region after an open Press advertisement and proper verification of their financial and technical credentials. All works costing upto Rs.10.00 lakhs should be invited from them by putting NIT at notice board of the concerned division and also other Divisions/offices of AAI and State PWDs as well.
- 27.5.2 The list should be valid for the period of 2 years. This should be re-advertised and re-prepared before that period. This enlistment should be valid only if they fulfill other requirements of NIT.
- 27.6 **Sale of Tender Documents to Registered Contractors**
- 27.6.1 Tender schedules for works can be issued to contractors registered in CPWD in appropriate classes, contractors registered with the Railways/M.E.S./P&T/PSU in appropriate classes, specialised contractors and contractors registered with the State PWDs in appropriate classes.
- 27.6.2 Contractors registered with the State PWD shall include contractors registered not only with the State PWD where PWD is a distinct department in itself but also include contractors registered with other allied departments i.e. irrigation, public health Engineering etc. provided the registration obtaining in these departments of the State makes them eligible for tendering for the State PWD works in that State.
- 27.6.3 The Register for Circulars imposing Penalty of one kind or the other as a result of the Review of Performance Reports of Contractors should invariably be consulted by the SM/SM(SG) (Engg) before tenders are sold to the eligible contractors.
- 27.6.4 For deciding the limit upto which a particular contractor is eligible to tender, the cost of materials whether proposed to be issued free or on payment shall not be deducted from the cost of work put to tender.
- 27.7 **Supply of Duplicate Set of Tender Documents**
- 27.7.1 Where a request is received from a contractor for the supply of a duplicate set of tender documents the same may be supplied to him at the same cost of the original copy at the time of issue of the original papers. The copy to be supplied should be stamped "Duplicate" so that it may not get mixed up with the original tender

documents. A complete list of relevant drawings should be attached to each tender document for the information and guidance of the contractors.

**27.8 Issue of Tender Documents for Sewerage and Water Supply to B&R Contractors.**

27.8.1 Tenders for sewerage, external drainage and external water supply should also be issued to the B&R contractor of appropriate classes in addition to S&W contractors.

**27.9 Procedure for issuing Tender Documents for Non-Registered Contractors**

27.9.1 Tenders to Non registered contractors may be issued only if stipulated in NIT/ Press notification.

**27.10 Sale of Tender Documents for Residual Works**

27.10.1 When under relevant clause of contract, the unexecuted portion of the work is taken out of the hands of the original contractor, tender papers can be given to the original contractor, if asked for.

27.10.2 In case of rescinded contracts, the NIT for residual work shall be approved by the authority who has approved original NIT. However the tender shall be accepted by the authority who has powers to accept tender as per the delegated financial powers.

27.10.3 To sale of tender papers in respect of residual work to the original contractor whose contract has been rescinded:

27.10.3.1 Relevant clause of contract of Percentage Rate Tender or Item Rate Tender provides that the non-executed portion of work should be taken out of the hands of the original contractor whose contract has been rescinded and given over to another contractor. In view of the wordings of this clause, it appears that it would be illogical to issue tender papers (for the residual work) to the same contractor who failed to execute the work and the work was already taken out of his hands.

27.10.3.2 It is clarified that under the relevant clause Engineer-in-Charge is competent to give the non executed portion to another contractor for completion in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, would be borne by the original contractor. When non-executed portion of work is given to another contractor the question as to what damages he would be entitled is a matter to be governed by the general law relating to damages. Whether the other contract could have been obtained at the lower rate is a main part for this purpose and it is necessary to consider whether the tenders were freely invited.

**27.11 Sale of Tender Documents to Weeded Out CPWD Contractors or Contractors with other departments**





- 27.11.1 Tenders should not be issued to contractors blacklisted in Govt/PSUs for works in AAI.
- 27.11.2 In case where a contractor is removed from the approved list of contractors maintained or recognised by AAI for reasons other than that of inactivity, such contractor would not be eligible to take up works in AAI on the basis of his enlistment in any other Engineering Department.
- 27.11.3 If the Sr Manager concerned received adverse report against any contractor from any other department, he can stop issuing tenders to that contractor on the basis of such report. The SM/SM(SG) should, however, communicate the information to his DGM/JGM for record and for the approval of the action taken or proposed to be taken by him.
- 27.11.4 Following procedure should be followed in respect of proprietorship concern/ individual contractor for short listing and signing the tender document and agreement.
- (a) Verify the original affidavit wherein particular of the individual is furnished including its validity.
  - (b) Verify the Permanent Account number (PAN).
  - (c) Verify the original registration certificate and its validity.
  - (d) Only after the satisfaction on above tender may be issued/sold. It should be made clear in writing that the duly completed tender document are to be signed only by the individual in whose name the tender is issued. Further, should be made clear therein that in the event of acceptance of the tender, contract agreement should only by the same by the individual to whom the tender is sold.
  - (e) On conclusion of the contract as explained above, person holding power attorney duly authorised for particular purpose(s) may be allowed to act on behalf of contractor to whom work is awarded.

## 27.12 **Time Interval between Sale of Tender Documents and Opening of Tenders**

- 27.12.1 Any tender form which is issued either for sale or for office use should be issued under the signature of the SM/SM(SG) or the Manager/ Asst. Manager as the case may be. In order to give contractors sufficient time to study tender documents and work out reasonable rates, the last date for the issue of tender documents in the case of large works should be a minimum of two days before the tenders are scheduled to be opened. But in the case of works costing less than Rs. 10,00,000/- of tenders by SM/SM(SG), the sale of tender forms should be stopped at least 24 hours before the opening of tenders. Every tender document issued must contain the following information at the time of its issue.

- a) Name of contractor

- b) Date of application for tender by contractor/date of receipt of application in Divisional Office.
- c) Date of issue of tender papers and
- d) Date of receipt of tender papers.

27.12.2 The SM/SM(SG) should have rubber stamps with the above information to be put on each tender and the dates and other particulars may be filled in at the time of issue of tenders.

**Note:** The term large work appearing above means “Works costing more than the normal acceptance powers of tenders by SM/SM(SG).

### 27.13 Scale of Charges for Tender Documents

27.13.1 The cost of tender document should be charged from the contractors as per given below or directions from CHQ from time to time.

(a)	Estimated Cost (E.C.) upto Rs.5.00 crore	Rs. 500/-
(b)	E.C. Beyond Rs. 5.00 crore upto 10.00 crore	Rs. 1000/-
(c)	E.C. Beyond Rs. 10.00 crore upto 25.00 crore	Rs. 2500/-
(d)	E.C. Beyond Rs. 25.00 crore upto 50.00 crore	Rs. 5000/-
(e)	E.C. Beyond Rs. 50.00 crore	Rs. 10000/-

Note 1: Cost of tender ducumet for Global bids: To be decided by the NIT approving authority.

Note 2: For Sales Tax: The sales tax on the cost of tender form, if chargeable as per the General Sales Tax Act of the respective state, it should be levied on the cost of tender form at the specified rate of the respective state. The sales tax, thus collected on sale of tenders, are to be remitted to the sales tax authorities connected within the time limit specified in the Sales Tax Act.

27.13.2 Authorities competent to approve NITs have got the discretion to add to the prices, mentioned above, any additional cost of drawings to be supplied alongwith tender documents depending on the labour actually involved in their preparation.

27.13.3 NIT should be supplied alongwith tender documents to intending tenders.

27.13.4 As it is not always practicable to supply plans and Drawings alongwith each set of tender documents the contractors for the purposes of tendering, plans and drawings should be kept with the designated officer in o/o SM/SM(SG)E for study by the contractors and a recorded entry in register or a certificate obtained in lieu of having seen the plans.

### 27.14 Accounting of Tender Forms

27.14.1 The following is the procedure, laid down, for the accounting of tender forms: -

- a) The tenders to the eligible contractors will be sold from the office of SM/SM(SG) (Engg)/ Asstt. GM (Engg) against the price mentioned in the press notice.
- b) The cost of tender document will be accepted in the form of demand draft of a scheduled Bank or Cash receipt for the cost, obtained from Accounts Section
- c) The register for the sale of tender documents should be kept in the office of SM/SM(SG)E (Engg.)/Asstt. GM (Engg.). It should be got issued from competent authority and each page of register should be serially numbered. Tender register should contain chronological record of issue of tender forms showing the name of the person to whom the tender is issued and it's the amount released duly authenticated by Engineer-in-Charge.
- d) In case of Asstt. Mgr./ Mgr. Stations activity at a)\_\_\_\_\_ & c) \_\_\_\_\_above should be handled by Asstt. Mgr./ Mgr. In case of stations where only a Sr. Supdt. is posted, concerned Sr. Mgr./ DGM/JGM can request / authorise the concerned Sr. Mgr./ Mgr./ Asstt. Mgr. in-charge of airport to assist in sale of tenders as above subject to scrutiny of applications by Technical Sanctioning Authority.

27.14.2 To avoid the possibility of bogus and fake tenders being submitted, it is necessary that tender documents are sold individually and acknowledgements taken from contractors or their accredited representatives while handing over tender documents to them. In cases where tender documents are transmitted by post, these should be dispatched by Registered A.D. Post/Speed Post.

## 27.15 **Prequalification Applications**

27.15.1 It is to ensure that applications received for pre qualifications of various works are properly entered in prequalification application register.

27.15.2 In order to have transparency, the firms which are not short listed for issuing tender papers, should be intimated with the reasons for rejection of their application.

## 27.16 **Amendments / Addendums after sale of tender**

At times it becomes necessary to issue amendments/ addendums to the tender conditions/ provisions after sale of tender documents to the contractors before opening of tenders. Such amendments/addendums should ultimately become part of the contract for the accepted tender. Therefore, while issuing such amendments/ addendums each intending tenderer should be asked to attach letters containing amendments/addendums with tender document, duly signed, before its submission. While opening tenders, tender opening officer shall ensure that copies of such amendments /addendums are attached with the tender documents and shall initial the same.

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## **SECTION 28: RECEIPT OF TENDERS AND THEIR ACCEPTANCE**

### **28.1 General**

With a view to avoid the possibility of original tender documents being tampered with, the following procedure should be adopted in connection with the receipt and opening of tenders and their acceptance.

### **28.2 Receipt of Tenders:**

28.2.1 All the tenders in the power of SM/SM(SG) Engg and higher officers should be received in office of concerned SM/SM(SG)E/Asstt.GME. Tender in power of ME/AME should be received in the office of concerned ME/AME.

28.2.2 All tenders should be called in two envelopes.

**Envelope-1:** A letter from the contractor on their letter head in the format issued by AAI, confirming that no condition is stipulated in the financial bid and if any condition is found entered/enclosed with the financial bid, their tender may be summarily rejected. This envelope should contain EMD also.

**Envelope-2 :** Only price bid.

For the works, wherein technical bid is also required,

**Envelope-1 :** Shall contain the requisite certificate & EMD.

**Envelope-2 :** Shall contain technical bid.

**Envelope-3 :** Shall contain financial bid respectively.

Stipulation should also be made in the contract form that “if a contractor observes a discrepancy/mistake in the schedule of items, he should bring it to the notice of SM/SM(SG)E concerned in writing before the date of submission of tender.

### **28.3 Justification Statement:**

28.3.1 Before opening of price bid, the justification statement based on Market Rate Analysis (following the guidelines of CPWD, Delhi Analysis of Rates) should be prepared and handed over in a sealed cover to tender opening committee before opening of price bid. It will be opened by tender opening committee.

28.3.2 For items not covered in the Delhi Schedule of Rates of CPWD like aerobridges, escalators, conveyers, walk-letor, elevators, DG sets, AC Plant, curtain glazing, profile sheet roofing, space frame for roofing, metal cladding, weighing Machines, in line X-ray inspection system, FIDS, CCTV etc., justified cost should be prepared based on average value of the budgetary offers collected before floating of tenders.

28.3.3 The following additional components shall also be considered while preparing the justified cost.

- (a) 1/8 (12.5%) extra component of labour cost for works being executed in North East Region.
- (b) 5% extra component for working in operational area.
- (c) 5% extra component working in disturbed / remote areas as approved and circulated by CHQ from time to time.

28.3.4 The component of contractor's profit and over-heads shall be considered as 10%.

28.3.5.1 In the preparation of justification statement for considering reasonableness of tenders, at present, the method is being followed that it consists of preparing detailed analysis of rates by taking market rates of labour, materials and cartage etc. The method of analysing items is same as given in standard CPWD analysis of rates for major item on the whole costing about 90% of the estimated cost put to tender and working out the justified percentage on this basis. Any other suitable method may also be adopted. While preparing the justification for market rate, prevailing market rates should be based on documentary evidences like printed price list / quotations from manufactures/dealers for these items.

For the justification of tenders, the issue rate (and not the market rate) of stipulated materials should be considered for items where issue of materials is to be done, irrespective of the quantity of stipulated materials stated in the draft NIT/tender documents.

28.3.5.2 Items constituting about 90% of the estimated cost of work should be considered for preparation of justification statement. Item to be considered should be so selected which have higher estimated cost and amount. One should start with items having the highest estimated amount and then next lower in the descending order and so on, till the fixed percentage of estimated amount i.e. above 90% is reached.

28.3.5.3 For the materials stipulated for issue in tender documents such as cement, steel, etc. 2.5% handling charges should be taken instead of 10% contractor's profits and over heads.

28.3.5.4 The market rates for items like Terrazzo tiles, A.C. sheets, sanitary fittings etc. should be inclusive of carriage.

28.3.5.5 No credit should be given for empty bags / drums.

28.3.5.6 In the case of NITs approved by the DGM/JGM/GM/ED (Engg), they may collect the following details from the SM/SM(SG) Engg:

- (a) Market rates of specified items of non stipulated materials and lead involved.
- (b) Market rates of specified categories of labour.

28.3.5.7 The NIT approving authority shall take the help of SM/SM(SG)E/Asst.GME and other organizations like Bureau of Economics and statistics. for ascertaining the market rate.

28.3.5.8 For adopting rates for materials, it is necessary to consider all the factors regarding the rate. For example, discount on the price list are offered in many cases. In such cases, it is necessary to consider the discount also while adopting the market rate of the particular material.

28.3.5.9 Having analysed the various items based on CPWD analysis of rates as above, the justified percentage should be worked out as follows:

Justified amount for the items analysed (based on CPWD analysis of rates)  
Only = Y

Composite estimated cost for same item = X

Justified percentage above estimate  $P = \frac{100(Y - X)}{X}$

Justified amount: Total Estimated Cost  $\frac{(1 + P)}{100}$

Extra provisions for specialized works can be made on specific environmental requirement but lump sum additions and ad hoc percentage are to be avoided. All extra provisions must be made on the basis of some quantitative analysis and not on ad hoc basis.

28.3.5.10 Justification statement for considering reasonableness of tenders, as stipulated in above para shall be worked out before the stipulated date of opening of tenders and same shall be kept in a sealed cover with the Senior Most Engineering officer at the respective airport or office. Justification statement before the opening of the tenders would be approved by AM/Mgr Engg for which TS accorded by AM/Mgr Engg and justification statement would be approved by SM/SM(SG)/Asstt. GM Engg for which TS accorded by SM/SM(SG)/Asstt. GM Engg or by the officer who is higher in rank to him.

## 28.4 Opening of Tenders

28.4.1 All tenders should be opened in the presence of such intending contractors or their representatives as may choose to attend at the time and place which should be advertised. Tenderers should also be encouraged to be present at the time of opening of the tenders. The details of opening of Tenders should be entered in the Register "Tender Opening Register".

28.4.1.1 Tender Opening Register should be maintained in the proforma given in **Appendix -43**.

28.4.1.2 Tender Opening Register should be properly bound and page numbered. Certificate of total page numbers in the register should be recorded on the first page under the dated signature of AME/ME/SM/SM(SG)/Asstt. GME concerned. No loose sheet should be used.

28.4.1.3 Names and details of the firms who have not submitted tenders shall not be entered in the Tender Opening Register.

- 28.4.1.4 Signature of the representatives of the firms attending tender opening should be taken in the respective columns of the Tender Opening Register
- 28.4.2 The representative of Directorate of Finance should be present at the time of opening of tenders.
- 28.4.3 The following instruction should be scrupulously followed:
- 28.4.3.1 Late tenders, i.e. tenders received after the specified time of opening, are not accepted.
- 28.4.3.2 Late tenders, i.e., tenders received before the time of opening but after the due date and time of receipt of tenders are also not considered at all.
- 28.4.3.3 The tenderers are not expected to make any post-tender modifications. Any such case should be viewed seriously and action taken under the provision of Notice Inviting Tender and rules for enlistment of contractors and matter reported to the registering authority for the disciplinary action. In any case, the contractors should not be allowed any undue advantage of such modification.
- 28.4.3.4 When the tenders are under examination, no other authority should make queries or call for reports/clarifications form the tenderers except with the approval of accepting authority.
- 28.4.4.1 The following procedure shall be adopted while opening the tenders:-
- (a) After opening the tender box and marking the envelope No.1 and 2 of received tenders serially, the envelope no.1 of all the bidders shall be opened first.
  - (b) In case the contents of envelope no.1 are found conforming to the requirements as stipulated in the NIT conditions, envelope no.2 containing price bid of the concerned bidder shall be opened by the tender opening committee.
  - (c) In exceptional cases, where from the contents of envelope No.1 of any particular tenderer, the tender opening committee can not decide as to whether envelope no.2 containing price bid of that agency should be opened or not, tender opening process shall be temporarily postponed and matter should be urgently brought before the tender accepting authority for a quick decision. The opened envelope No.1 and unopened envelope No.2 of the tenderers shall be kept under safe custody of the concerned Senior Manager (Engg.) until the revised date / time of opening.
  - (d) On receipt of the decision, all the agencies shall be further intimated about the revised tender opening date of 2<sup>nd</sup> envelope (i.e., price bid).
  - (e) It shall be ensured by the tender opening committee that in no case a situation should arise where cover no.1 and cover no.2 (i.e., price bid) of one or more

tenderers have been opened and then a decision is required about opening / not opening of cover no.2 (price bid) of any other tenderer.

- 28.4.4.2 In case of two bid system, where technical bid is required, envelope no. 2 having technical bid shall be opened after the opening of envelope no. 1 as mentioned in above para 28.4.4.1 and after technical evaluation is completed, financial bid in respect of technically acceptable offers only shall be opened.
- 28.4.5 Officers opening the tenders should invariably record date and initial corrections, omissions and additions/insertion in the schedule of Quantities, Schedule of material to be issued and specifications and other essential parts of contract documents, and also record date and initial on pages of the tendered documents irrespective of fact whether they contain or do not contain any corrections or overwriting, etc., the officer concerned should record the fact in writing at the end of those pages individually.
- 28.4.6 The officer concerned should mark all corrections, omissions, additions/insertions and over-writings and number them and attest them in red ink. In case of a number of corrections in any rate, either in words or in figures or in both, the number of corrections marked should indicate the correction serially, that is to say, in case of, say, three corrections in rates of any one item, each of these correction should be allotted independent numbers serially and not one number to represent all the three corrections. In case of more than one correction where the correction is not legible, the rates should be written afresh in the hand of the officer opening the tenders.
- 28.4.7 The number of such corrections, cuttings, additions, conditions and overwriting must be clearly mentioned at the end of each page of schedule attached to the tender paper and properly attested with the date. Any omission observed should also be brought out clearly on each page of the schedule.
- 28.4.8 The corrections, conditions, additions/insertions and overwriting should be allotted separate numbers, i.e. corrections should start from 1,2,3 (C-1, C-2, C-3) etc., and overwriting should similarly start separately from 1,2,3 (O-1, O-2, O-3) etc.
- 28.4.9 Any ambiguities in rates quoted by tenderers, in word or figures, must be clearly indicated on each page of the schedule attached to the tender to which it concerns.
- 28.4.10 In case where the contractor has quoted rates in rupees and no paise is mentioned, the word “only”, should invariable be added after the words rupees and the corrections should be initialed and dated with suitable remarks at the end.
- 28.4.11 Where the contractors have omitted to quote the rates in figures or in words, the omissions should be recorded by the officer opening the tender on each page of the schedule.
- 28.4.12 The officer opening the tender should see that the contractors quote entire rates in words including paise to avoid chances of tampering in rates and if the contractor fails to do so the officer opening the tender should himself write the rates in words



at the time of opening of tenders and if necessary, initiate action against the contractor.

- 28.4.13 The contractor should be asked to fill in the tenders properly and carefully. They should avoid quoting absurd rates` and making too many corrections in the tenders. The amounts should also be correctly worked out. If any contractor does not follow these instructions and desists from filling the tenders carefully it would be open to the department to take disciplinary action against the contractor.
- 28.4.14 Percentage and lump sum tenders should be read out to the tenderers as far as possible. In the case of item rate tenders, the total amount worked out by different tenderers may be read out and the rates of individual items, if required, by the tenderers present.
- 28.4.15 A complete comparative statement of all tenders received in response to the notice should be drawn up in the SM/SM(SG)/Manager/ Asstt Manager's office and the following instructions should be carefully noted:
- 28.4.15.1 The officers opening the tender should prepare in their own hand a statement of the Percentage and Lump Sum tenders received and should sign that statement. In the case of item rate tenders only a list of tenders received need be prepared by them.
- 28.4.15.2 Care should be taken in preparing and scrutinising comparative statements of tenders to guard against arithmetical and other mistakes. Failure to do this may result in work being awarded to a contractor who is not lowest acceptable tenderer, a contingency which must be guarded against.
- 28.4.15.3 Concerned SM/SM(SG)E/Asstt. GME shall verify certificates of lowest bidder, which were submitted by him with the application from the concerned offices/organizations.
- 28.4.16.1 The detailed arrangements for proper check of tenders and preparation of comparative statement are left to the SM/SM(SG)/Manager /Asstt Manager but any such arrangements must provide.
- (a) That the Assistant employed on the work are confined to the Engineering Section. The officials handling the tenders should work on it in the branch only and tenders should not be taken outside the branch in any case. Tenders and related papers must be kept under lock and key by officials before leaving office.
  - (b) That the Assistant writes date and initial all papers, the calculations of which they have checked and that all working sheets are preserved.
  - (c) Before sending the tender documents to Directorate of Finance, SM/SM(SG)/Manager/Asstt. Manager Engg makes satisfactory and efficient arrangement for checking of computed tenders and should also see that comparative statement correctly incorporates the total as checked in individual tenders. Only cross check and scrutiny of tenders will be done by Finance Officer.

- 28.4.16.2 That if on checks there are differences between the rates given by the contractor in words and figures or in amount worked out by him, the following procedure should be followed:
- (a) When there is a difference between the rates in figures and in words, the rates which correspond to the amounts worked out by the contractor, should be taken as correct.
  - (b) When the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rate quoted by the contractor in words should be taken as correct.
  - (c) When the rate quoted by the contractor in figures and in words tallies but the amount is not worked out correctly, the rate quoted by the contractor should be taken as correct and not the amount.
  - (d) In case of percentage rate tender, the contractors are required to quote their rates both in amount as well as in the percentage below/above the rates entered in the schedule. In such cases, in the event of arithmetical error committed in working out the amount by the contractor, the tendered percentage and not the amount should be taken into account.
- 28.4.16.3 That the SM/SM(SG)/Manager/Asstt. Manager Engg himself makes an intelligent scrutiny of the tender and the statement.
- 28.4.16.4 That the SM/SM(SG)/Manager/Asstt. Manager Engg makes proper arrangements for the safe custody of tenders and comparative statements while computations are being made in his office.
- 28.4.16.5 When contractors sign their tenders in any Indian script or can only write their names in English, the amount of the tender or rate of percentage above or below offered by them should be written in the contractors own handwriting in Indian script and in the case of illiterate contractor, the amount of tenders should be attested by one of the witnesses.
- 28.4.16.6 All corrections should be carried out neatly and clearly endorsed to for attestation by the authority concerned.
- 28.4.17 The responsibilities of a Finance Officer as regards the computation and checking of tenders and the preparation of comparative statements are as follows:
- 28.4.17.1 He is responsible for the safe custody of tender documents during the period when they remain in the Finance Branch until submission to the SM/SM(SG)/Manager /Asstt. Manager Engg.
- 28.4.17.2 He is responsible for the arrangements for checking the computed tenders, i.e. for seeing that satisfactory and efficient arrangement are made for checking.
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- 28.4.17.3 He should conduct personally a test-check of the computed and checked tenders sufficient to satisfy himself reasonably that the checking work has been properly done.
- 28.4.17.4 He should see that the comparative statement correctly incorporates the totals as checked on the individual tenders.
- 28.4.18.1 Validity of tender is usually kept as 90 days from the date of opening of tenders. Therefore, scrutiny of tenders including computation should be done in a time bound manner. Maximum time to be taken for scrutiny/computation of tenders should be: -
- Scrutiny in Deptt. Of Engg. And recommendations – 30 days
  - Scrutiny by Deptt. Of Fin i/c obtaining clarifications from Deptt. of Engg, if any – 15 days
  - Balance 45 days to be kept as buffer for negotiations with contractor, re-computation, approval of WAB/WAC etc. as per requirement.

However, for simple and non-complex tenders, the above maximum period of 30 and 15 days can be reduced considerably.

- 28.4.18.2 Top priority should be given to decide the award of work on receipt of tenders. In order to minimize chances of delay, timetable as per **Appendix - 44** should be observed for dealing with tenders by different authorities as per DOP.
- 28.4.18.3 The above time schedule is required to be adhered to strictly and if any officer is unable to follow the same, he should invariably give reasons, while forwarding the tenders to the authorities competent to accept it. Disregard of these instructions is to be taken serious note of.
- 28.4.19.1 With a view to cut down the procedural delays following procedures will be followed in respect of tenders requiring approval of the higher authority.
- On receipt of tenders, the SM/SM(SG)/Asstt. GM Engg will complete all required formalities and then forward the tender papers alongwith the comparative statement etc. complete in all respect to the higher authority. A copy of forwarding letter alongwith the copy of comparative statement and copies of letter of contractors showing any condition stipulated, will be endorsed to DGM/JGM Engg
  - The document/papers required in (a) will include the following:-
    - Reasonable justified cost based on current market rates of materials of labour collected by the SM/SM(SG)/Asstt. GM Engg or his authorized representatives.
    - Comments of the SM/SM(SG)/Asstt. GM Engg, the performance of first lowest tenderer and on the condition, if any given by them.

- (c) On receipt of papers/information from the SM/SM(SG)/Asstt. GM Engg, the DGM/JGM will send his recommendation/comments on all points to the higher authorities within the prescribed period alongwith the comparative statement.

28.4.19.2 Some times contractors stipulate number of conditions while submitting their tenders, such condition are generally in the form of letter accompany and in a few cases these are mentioned in the tender document on the last page of bill of quantities. Where these condition are written in some place of tender document itself, the officer opening the tender has to enter a remark under his signature that such condition/ conditions has/have been inserted. In case of letter accompanying the tender all correction and overwriting should be listed out on each page under the dated initials of the officer opening the tenders in the same way as for other pages of the tender document.

Some times a condition may not be mandatory but it may be in the form of an offer giving special rebate if certain condition is fulfilled or a facility is given. It is opened to the accepting the authority to accept or reject such a condition.

28.4.19.3 Contractors are permitted to offer voluntary rebate for regular payment for running and final bill, following guidelines should be followed while accepting these offers:

- (a) A regular monthly payments to the contractor will be made when the gross amount of worked done during the previous month is not less than indicated below:

Amount of Contract	Gross value of works since previous bill should exceed*
Over Rs. 10 lakhs value	Rs. 1,00,000/-
Over Rs. 2 lakhs upto Rs. 10 lakhs	Rs. 50,000/-
Upto Rs. 2 lakhs	Rs. 10,000/-

\* This amount may be decided by NIT approving authority.

- (b) An offer on rebate on final bill should be accepted on the following condition:

(i) Final will be prepared and payment made for undisputed items.

(ii) Time limit for payment should be 4/6 months after receipt of bill from the contractor by Engineer-in-Charge of works costing upto Rs. 5 lakhs/above Rs. 5 lakhs as case may be.

28.4.19.4 In the case the contractor offers a single rebate for both regular payment of running bill and final bill, the rebate will be individually to each running bill/final bill and will be recovered accordingly.

- 28.4.19.5 While forwarding tenders to higher authority, the SM/SM(SG)/ will send tender documents alongwith forwarding memo as given in **Appendix-45** mentioning details like (a) validity period of the tender, (b) time already taken for scrutiny, (c) balance period available (d) period required after receipt of decision by the SM/SM(SG) to convey acceptance should prominently be indicated to ensure that there is no delay in processing of tenders and decisions are taken and conveyed to the SM/SM(SG) well in time.
- 28.4.19.6 In case of tender where validity period has already expired, decision to accept the same should be taken only after validity period is got extended. Also conditional tender cannot be accepted ignoring the conditions.
- 28.4.19.7 For the purpose of determining the authority competent to acceptance the tender the amount of the contract should be taken to be net amount to be paid to the contractor exclusive of the cost of value of departmental material to be supplied to the contractor as per stipulation in the tender document. ED (Engg) will have full power to authorize execution of smaller works likely to crop up during the execution of work/project and for which no specific provision exist in the sanctioned project estimate. Such expenditure will be charged to contingency of the sanctioned project
- 28.4.19.8 Officers of AAI may give out to different contractors a number of contracts relating to one work covered by single technical sanction, even though such work may be estimated to cost more than the amount upto which they are empowered to accept the tenders.
- 28.4.19.9 The reasons for accepting and rejecting tender should be recorded on separate sheet, it should be attached to the comparative statement and remove before the case goes back to SM/SM(SG)/Asstt.GM Engg. This sheet should be kept in the custody of accepting authority
- 28.4.19.10 No officer is competent to accept the tender if the amount of work shall exceed the following deviation limit of sub heads of sanctioned A/A & E/S.

(a)	Building Work including services	-	±	30%
(b)	Electrical Works	-	±	30%
(c)	Runway and Pavements Works	-	±	50%

Subject to following conditions:

- (i) The above variation shall also be applicable on various works contracts within a particular sub-head;
- (ii) Overall excess on A/A & E/S amount shall not exceed 10% of sanctioned amount at any stage of execution;
- (iii) If no expenditure is incurred in a particular sub-head of A/A & E/S, then, amount of that sub-head can not be apportioned to execute another sub-head;

- (iv) Saving within above mentioned limits from one sub-head should be utilized for execution of works in another sub-head of work which are contingent to complete the main work required as per site conditions.

## 28.5 Acceptance of Tenders:

- 28.5.1.1 Normally, there should not be any negotiation. Negotiation if at all shall be an exception in case of proprietary item or in the case of items with limited source supply or in exceptional circumstances only after due application of mind and recording valid, logical reasons justifying negotiation.
- 28.5.1.2 Negotiation shall be held with the lowest bidder only.
- 28.5.1.3 Wherever the price of the lowest bidder is within plus (+) five percent of the justified cost, lowest bid can be accepted by the competent authority as per the Delegation of Powers.
- 28.5.1.4 Where, however, the price of the lowest bidder is higher than the justified cost by more than 5%, the lowest bid can be accepted by the authority next higher to the officer competent to accept the tender as per the Delegation of Powers. However, Chairman shall have full powers. Reasons for such acceptance with higher variation beyond +5% shall be on record.
- 28.5.2 Before acceptance of tenders, all the conditions, etc., submitted by the contractors should be finally settled before issue of acceptance letter.
- 28.5.3 As per earlier works manual, there was a provision of identification of AHR/ALR items. Now CPWD has discontinued the procedure of identification of AHR and ALR items. Accordingly identification of AHR and ALR item is being discontinued in this works manual
- 28.5.4 The acceptance of tender should be unconditional and duly communicated to the tenderer in writing, either by placing a Letter of Intent or by simply informing of the award of the contract on approval of the Competent Authority (As per **Appendix-46**). The imposition of any condition at the time of acceptance of the tender would amount to a counter offer, acceptance of which would lie with the tenderer.
- 28.5.5 The decision to accept the tender would be the sole discretion of the Competent Authority whose decision should be final. Since the decision making process would be subject to judicial review it should, therefore, be ensured that scrutiny and acceptance of the tender is carried out in a legal, fair and non-arbitrary manner by adhering to the principles of natural justice.
- 28.5.6 The scrutiny of tenders for specialized jobs like procurement of equipment and works under global tenders and turnkey contractors etc. should be carried out in accordance with the guidelines issued in this regard.
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28.6 **Award of Work only for Area Where Project Site/ Land is Available to AAI without Encumbrances/ Encroachment;**

Work should be accepted /awarded only for those areas where project site/land is available to AAI without encumbrances/encroachment and the executed facilities can be utilized/commissioned.

## SECTION 29: EARNEST MONEY

### 29.1 Necessity for Earnest Money

29.1.1 According to the practice adopted by AAI, earnest money as stipulated in the NIT, is to be paid by each tenderer to enable the Authority to ensure due execution of the work and the acceptance of the terms and conditions of the contract by the Tenderer after it has been awarded to him.

### 29.2 Rates of Earnest Money

#### 29.2.1 (a) In respect of Indian Tenders .i.e. other than the Global:

Each tender must accompany the earnest money for an amount of equal to 2% of the estimated cost put to tender for the works costing upto Rs. 25 crores. For the works costing more than Rs. 25 crores, the amount of earnest money deposit should be Rs. 50 lakhs + 1% of the estimated cost over and above Rs. 25 crores. Tenders not accompanied by the requisite earnest money will be rejected.

#### (b) In respect of Global Tenders:

(i) Each tender must accompany the earnest money for an amount of equal to 2% of the estimated cost put to tender for the works costing upto Rs. 25 crores. For the works costing more than Rs. 25 crores, the amount of earnest money deposit should be Rs. 50 lakhs + 1% of the estimated cost over and above Rs. 25 crores. The earnest money should be in the form of a Demand Draft in favour of Airports Authority of India ..... payable at ..... In US Dollar or in the form of Bank Guarantee (BG) of like amount as per **Annexure 'A'** from a Scheduled Bank (as per RBI Schedule) having office in India. Tenders not accompanied by the requisite earnest money will be rejected.

(ii) Successful tenderer is required to furnish a bid bond alongwith supporting Bank Guarantee, both for an amount equivalent to EMD as per **Annexure 'B'** and **Annexure 'C'** respectively, immediately after award but before execution of agreement for the work and opening of letter of credit. Wherever the BG towards EMD is submitted by tenderer, the same shall remain valid till submission of bid bond and supporting guarantee by successful tenderer.

29.2.2 In cases where as a result of higher or lower rates quoted by the contractors, the tender is higher or lower than the estimated cost, the earnest money will continue to be based on the estimated cost of the tender. If only a part of work as shown in the tender is awarded and the contractor does not commence the work, the amount of earnest money to be forfeited by the Authority should be worked out with reference to the estimated cost of the work so awarded.

29.2.3 In respect of contracts for dismantling and removal of old structures, the amount of earnest money which the contractors should be asked to deposit should be as high



as the anticipated cost of removing all debris and cleaning the site completely and that it may be left to the authority sanctioning the demolition work to fix the amount of such deposit in each case. However, amount of the deposit money should not be less than 25% (twenty five percent) of the estimated sale value of the building(s).

### 29.3 **Exemption of Earnest Money:**

29.3.1 Govt. of India's Guidelines issued from time to time relating to exemption of earnest money should be applicable.

### 29.4 **Mode of Deposit**

29.4.1 The earnest money upto amount of Rs. 1 lakh should be accepted in form of Demand Draft / Fixed Deposit Receipt i.e. deposit receipt issued in favour of Airports Authority of India payable at \_\_\_\_\_ from Scheduled Bank but not Cooperative / Gramin Bank. If Earnest Money is more than Rs. 1 lakh, it may be accepted in form of Demand Draft / Fixed Deposit Receipt i.e. Deposit receipt issued by any scheduled Bank / Bank Guarantee as per **Appendix – 47**, issued from Scheduled Bank but not from any Co-operative / Gramin Bank.

### 29.5 **Refund of Earnest Money**

29.5.1 Earnest money deposited by all tenderers except the confirmed lowest tenderer should be refunded within a week from the opening of the financial bid. Entry of DD/FDR/BG received with tenders as earnest money should be kept in tender opening register.

29.5.2 In the case of tenders involving technical bid and price/ commercial bid, EMD of those tenderers whose technical bids were found not suitable and hence rejected by competent authority will be refunded. Refund of EMD to rest of the bidders should be done.

29.5.2.1 The SM/SM(SG)E should periodically review the tender registers with a view to ensure that the earnest money is refunded in time.

29.5.2.2 To avoid delay in refund of earnest money and also to avoid chances of malpractice as a consequence of such delay, written intimation about rejection of tenders should always be sent and a note should also be recorded on the office copy of the acceptance letter that the intimation to the tenderers about rejection of tenders has been sent.

### 29.6 **Forfeiture of Earnest money**

29.6.1 If any tenderer withdraws his tender within the validity period or makes any modification in the terms and conditions or there is a breach of the terms of the invitation to bids, of the tender which are not acceptable to the concerned Deptt, then the Authority shall, without prejudice to any other right or remedy available to it, forfeit the said earnest money absolutely.



29.6.2 Limited tender or short notice tender may be called for if so justified in the interest of work and take a decision on the basis of lowest tender.

**Note:** Procedure of maintaining bank guarantees at **Appendix-48**.

## **SECTION-30: SECURITY DEPOSIT**

### **30.1 Rate of Security Deposit**

30.1.1 The security deposit will be collected by deductions from the running bills of the contractors at the rate mentioned below and the earnest money, deposited at the time of tender, will be treated as part of security deposit:

- (i) Security deposit for each work of estimated cost put to tender upto Rs. 5.00 crores, should be 10% of the contract value.
- (ii) Security deposit for each work of estimated cost put to tender above Rs. 5.00 crores, should be 5% of the contract value.
- (iii) The earnest money deposited by successful tenderer should be adjusted against the security deposit and rate of recovery of security deposit should be 10% of gross amount of each running bill till the total security deposit as mentioned in contract is recovered. Security deposit may be accepted in the form of Bank Guarantee issued by Scheduled Bank (but not from co-operative / Gramin bank), if the amount of Security Deposit is more than Rs. 5.00 lakhs
- (iv) Where the payments are released through the irrevocable Foreign Letter of Credit and the deduction of security deposit is not possible from the bills, Contractor be requested to submit a Bank Guarantee or a standby Letter of Credit for an amount equivalent to total security deposit deductible as per the contract.

Airports Authority of India shall not pay any interest on the security deposit.

### **30.2 Repayment/Retransfer of Security Deposit**

30.2.1 Without the special orders of competent authority, no security deposit should be repaid or re-transferred to the depositor, or otherwise disposed of, except in accordance with the terms of his agreement or bond.

**NOTE:** The depositor's acknowledgement should be obtained in all cases of security returned or re-transferred; the acknowledgement should set forth the full particulars of the security.

### **30.3 Bank Guarantee as Security Deposit**

30.3.1 Bank Guarantee from a Schedule Bank other than Co-operative Bank can be accepted in lieu of security deposit. The Guarantee Bond should be executed in the form prescribed in **Appendix -49**.

30.3.2 (i) The original bank guarantee should be in the custody of Accounts Department who shall keep a watch and review the bank guarantees periodically. The bank guarantees to be submitted by the contractors should remain valid for at least three

months after expiry of defect liability period. The Sr. Mgr. [Engg.] shall also maintain a register of bank guarantees for record purposes and take timely action for its re-validation in co-ordination with Finance Department.

(ii) The liability or obligation of the banks under the guarantee bonds shall not be affected or suspended by any disputes between the Authority and the contractor(s) and the payments under the guarantee bonds by the banks to the Authority are not to wait till disputes are decided. The Banks are to pay the amounts under the guarantee, without any demur, merely as a demand from the Authority stating that the amount claimed is required to meet the recoveries due or likely to be due from the contractor(s). The demand so made should be conclusive as regards the amount due and payable by the Bank under the Guarantee limited to the amount specified.

30.3.3 The guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).

30.3.4 Guarantees given by the banks are their contingent liabilities. Therefore, if guarantees are asked for and given for indefinite periods (or are not returned to the banks after the relative contracts are fulfilled or on the expiry of the guarantee period) they give an unreal picture of the contingent liabilities in their balance sheets. Secondly, the banks secure their own position by obtaining counter guarantees from acceptable sureties. If guarantees for unlimited or long period are insisted upon, no acceptable sureties will be forthcoming and banks will be unable to give guarantors on behalf of their constituents. Thirdly, banks are permitted to give unsecured guarantees only up to a particular limit. Guarantees for unduly long or indefinite period would exhaust this limit fairly quickly. Lastly as banks charge commission for giving guarantees for as long period as they are in vogue, contractors will have to pay guarantee commission for indefinite long period, not warranted by the nature of the contract, and this will indirectly raise the cost of the Authority contracts. The tendency of holding the guarantee bonds indefinitely (viz. holding the security deposit unnecessarily) should be avoided.

30.3.5 Furnishing of bank guarantees in respect of transactions between public sector enterprises or between a public sector enterprise and Government department, the following procedure may be followed:

- (i) There is no need for insisting on the bank guarantee in respect of advances paid by public sector enterprises or Government department to another public sector enterprise, as there is no risk of the advance being lost;
- (ii) Since the transactions between two public sector enterprises or between public sector enterprise and the Government department are of commercial nature, it would not be appropriate to exempt the public sector undertaking from the bank guarantee in lieu of security deposit for the fulfilment of the contract. In fact, such guarantees show the earnestness of the public sector enterprises for the fulfilment of the contract and in such cases the normal commercial principles should be followed;

- (iii) It is necessary that proper bank guarantees be furnished by public sector undertakings/enterprises for the satisfactory performance of the equipment and/or contract, as the case may be. This would ensure prompt action for rectification in case of deficiencies noticed in the execution of the contract or defective performance of the equipment.

30.3.6 In this connection it may also be mentioned that furnishing of these guarantees would not involve any blocking of cash resources on the part of the enterprises as they can obtain in bond from LIC on the basis of which the bank will issue a counter-guarantee. In order to facilitate the issuance of bond by LIC, Authority have agreed that LIC would have a charge on the fixed assets of the company vis-à-vis the Authority.

#### 30.4 **FDRs as Security Deposit**

30.4.1 Since Fixed Deposit Receipts are not Government securities, there is no objection to their being accepted even if the period for the completion of the work is less than one year. The FDRs i.e. Deposit receipt should be accepted as security only, if it is the name of AAI and also cover the stipulated period of contract plus the defect liability period mentioned in the contract.

30.4.2 FDR i.e. deposit receipts tendered by the Scheduled Bank except Co-operative /Gramin Bank are acceptable as security.

#### 30.5 **Performance Guarantee:**

30.5.1 Performance guarantee should be taken from the successful bidder only for the tender for which estimated cost put to tender is more than Rs. 5.00 crores.

30.5.2 Performance guarantee in the form of an irrevocable bank guarantee / demand draft or FDR issued from Scheduled Bank but not from Co-Operative / Gramin Bank amounting to 5% of the contract value. Proforma of Performance Guarantee is in **Appendix -50**.

30.5.3 Performance guarantee should be furnished within 30 days of issue of work order. In case agency fails to deposit performance guarantee within stipulated period, interest @ 10% per annum on performance guarantee amount would be levied for delayed period of submission and the amount @10% of the gross amount of each running bill would be withheld till the total bank guarantee amount is recovered, against performance guarantee. As and when, the agency submits the bank guarantee the withheld amount would be released but the interest shall not refundable to the agency. The performance guarantee should be valid for 6 months beyond the scheduled date of completion of work and shall remain valid as per provision extension granted by the engineer-in charge. If the agency fails to extend the validity of the performance guarantee, the same can be encashed by AAI.



30.5.4 The Performance Guarantee should be refunded / released to the contractor on completion of work and issue of the completion certificate by competent authority.

**Note:** Procedure of maintaining bank guarantees at **Appendix-48**.

## **SECTION-31: REFUND OF SECURITY DEPOSITS**

### **31.1 Conditions for Refund of Security Deposits**

31.1.1 The security deposit shall not be refunded to a contractor except in accordance with the terms of his security bond or agreement.

31.1.2 In case of works executed against agreement, the refund of security deposit to a contractor on the completion of works is regulated by and other relevant clauses thereof. This clause envisages the issue of completion certificate in terms of the contract. Such completion certificates should be furnished by the Engineer-in-Charge immediately after completion of the work. Otherwise the date of completion as recorded in the Measurement Book should be taken as the date of completion for the purpose of refund of security deposit. The Manager/ Asstt. Manager, if he is present at the site of work on the date of completion, or in his absence the SA/SS./Jr. Exe concerned, should record a certificate in the MB of the physical completion of the work on the date the work is completed. This certificate should be in the following form :

Certified that the work has been physically completed within the due date/extended date according to the contract i.e on \_\_\_\_\_ and that no defects are apparent and the contractor has removed from the premises on which the work was being executed, all scaffolding, surplus materials and rubbish and cleaned off the dirt from all wood work, doors, windows, walls, floors or other parts of the building, in upon or about which the work was to be executed or of which he had possession for the purpose of execution thereof. This is, however, subject to measurements being recorded and quality being checked by the Competent Authority.

31.1.3 In case this certificate is recorded by a SA/SS/Jr. Exe Engg. the Asst. Manager / Manager concerned shall countersign it as soon as possible. In case of works costing more than the technical sanction power of SM/SM(SG), the original certificate must be recorded by the Manager/ Asstt. Manager and countersigned by the SM/SM(SG) or if the Manager/ Asstt. Manager is not available the SM/SM(SG) should himself record the certificate.

31.1.4 In case it is found that the works is not fully complete on the date as per contract, the Asst. Manager or the SM/SM(SG) concerned must record in the MB the details of all items (i/c site clearance) remaining incomplete on that date. A copy of the recorded entry must be sent immediately to the authority which sanctioned that contract for the work

31.1.5 Defect Liability Period (period of maintenance) as prescribed in the contract, will be counted from the date of physical completion as recorded in the certificate mentioned above provided the measurements are found to be correct and quality upto specifications. The security deposit of the contractor should be refunded by the SM/SM(SG) after the prescribed defect liability period as stipulated in the agreement or after the final bill has been prepared and passed for payment, whichever is later. Where, however, there is a delay in payment of final bill,

DGM/JGM/GM Engg shall make an assessment of the likely recoveries against the contractor and order release of as much security deposit as possible unless he has reasons to withhold the security of the contractor. These reasons should be recorded by him in writing. The Defect Liability Period may kept in the tender as follows:

(a)	Capital Works	12 months
(b)	Maintenance Works	6 months
(c)	For specialized works like water proofing, glazing etc.	Defects Liability Period may be more than above period and should be fixed by NIT approving authority.

31.1.6 The DGM/JGM/GM should satisfy himself that the following formalities are completed by all concerned before exercising his discretionary power for part payment of security deposits:

- i Formalities to be completed by the Departmental Officers:
  - a) Completion of prescribed test checks of measurements by SM/SM(SG)/Manager / Asst. Manager.
  - b) Sanction of extra and substituted items by the competent authority.
  - c) Timely decision of levy of compensation etc.
- ii Formalities to be completed by the contractor:
  - a. Acceptance of final measurement recorded by the Departmental Officers.
  - b. Applying for extension of time as and when required immediately.
  - c. Rectification of defects pointed out by Departmental Officers.
  - d. Completion of work in all respects i/c clearance of site.
  - e. Return of surplus material issued by the department immediately on completion of work or as and when it comes to light.

31.1.7 The SM/SM(SG) should keep a close watch on the delays in the refund of security deposit to contractors and to this purpose they should periodically review the register of security deposit maintained in the Division.

**31.2 The limit of claims for Refund of Security Deposit**

The claim for refund of security deposit is governed by the Limitation Act. The period of limitation is 3 years commencing from the date the right to due accrues. In the case of security deposit paid along with the individual contract, the right to due would accrue after the maintenance period as per contract.

**31.3 Refund of security deposit, regarding specialised items of work**

31.3.1 The water proofing work should be entrusted to specialised firms or registered contractors but they should be asked to give a general guarantee that they should be responsible for removal of any defect cropping up in the water proofing work



executed by them within the guarantee period. The form of the guarantee to be executed by the contractors is given vide **Appendix - 51**. It has further been decided that 10% of the security deducted from the bills of the contractors should be refunded to him after expiry of maintenance period in accordance with the terms of the contract in this behalf. The SM/SM(SG) shall, however, maintain a register in which all the water proofing work carried out in the Division should be entered and which should be reviewed by the SM/SM(SG). The Register will contain the following heads :

1. Name of the work
2. Date of completion
3. Specification in brief
4. Rates paid
5. Name of the firm/or registered contractors
6. History of all defects with date noticed during the guarantee period and
7. Action taken by the firm

The history will help as a ready reference about the efficiency and the quality of the work done by the firm.

#### 31.4 **Finance Officer's responsibility for prompt refund of security deposit**

In order to avoid delay in the refund of security deposit to the contractor after receipt of application from the contractor, for refund of security deposit, the SM/SM(SG)/ Manager/ Asst. Manager concerned will process the case for release of the same and the Finance Officer should make arrangements for release of the security deposit within reasonable time.

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## **SECTION-32: AGREEMENTS / CONTRACTS / ESSENTIAL FEATURES**

### **32.1 General**

32.1.1 The Board has full powers to accept tenders and is authorised to frame subsidiary rules relating to the calling for or acceptance of tenders and the general procedures connected with the contracts. There are, however, certain general principles and guidelines laid down for acceptance of tenders which are required to be observed by subordinate authorities empowered to enter into contract or agreement involving expenditure from Public Funds. The formal agreement/contract should be signed between the parties incorporating the terms and conditions agreed. There should be no inordinate delay in signing the contract after the award of the contract to the successful tenderer/contractor, which will result in delays in the execution of the contract as a consequence thereof. The reasons for the delay, if any should be duly recorded in writing and brought to the notice of the Board immediately. The execution of the formal agreement would, however, be a mere formality which shall not render the contract void ab initio, the terms of the contract having been mutually agreed upon by the parties.

32.1.2 No contract should be made by a subordinate authority which has not been directed or authorised to do so by or under the orders of the Board.

32.1.3 The Chairman should be made a party to every contract of the Authority and the words “for and on behalf of the Chairman, AAI” should follow the designation appended below the signature of the Officer authorised for executing the contract.

32.1.4 Terms of contract must be precise and definite and there must be no room for ambiguity. Standard contract forms have been prescribed to avoid this contingency. The alternative conditions given in the standard forms which are not applicable to a particular contract should be invariably scored out.

32.1.5 No relaxation of specification in a contract or relaxation of the terms of an agreement entered into by the Authority should be made without proper examination of the financial effect involved in consequence of such relaxation. The interest of the public exchequer should be taken due care before agreeing to any relaxation of agreement or contract.

32.1.6 “Cost Plus” contract should be avoided except where they are inevitable.

**Explanation:** A “Cost Plus” contract means a contract wherein the price payable for supplies or services under the contract is determined on the basis of the actual cost of production of the supplies or services rendered plus profit either at a fixed rate or unit or at a fixed percentage on the actual cost of production.

32.1.7 The terms of the contract once entered into should not be materially varied without the previous consent of the authority competent to accept tender/offer for the contract as so varied. No such variation involving payment to contractors by way of compensation or otherwise outside the strict terms of the contract or in excess of the contract rates, should be authorised without prior approval of the Chairman. A

variation of the terms of contract which has been approved by such officer should be made by writing executed “for and on behalf of the Chairman, AAI” by an Officer who is authorised to execute the original contract.

32.1.8 No contract involving an uncertain or indefinite liability or any condition of an unusual character should be entered into without the previous consent of the Member (P&E).

## 32.2 Power to sign agreements

32.2.1 The Asst. Manager/ Manager can sign the agreements for works costing within their powers for and on behalf of the Chairman, AAI after the tenders have been accepted by the competent authority. All agreements for execution of works in excess of the power of Asst. Manager/ Manager can likewise be signed by the SM/SM(SG) on behalf of the Chairman after the acceptance of tenders by the competent authority. There should be no delay in executing the agreement as soon as tenders have been accepted. The SM/SM(SG) / Manager/ Asst. Manager should see that conditions not existing in the approved tenders are not, in any case, allowed to be embodied in the agreements. A record of the agreements drawn up should be kept.

## 32.3 Recording of date of acceptance of tender in the agreement

32.3.1 In order to avoid legal complications, it is essential that the date of acceptance as shown in the letter of acceptance of tender and award of work issued to the contractor, which forms part of the agreement, should be indicated in the space provided at the bottom portion of the Acceptance / Agreement in tender document. The practice of showing the date on which the agreement is finalised is incorrect and should not be adopted.

## 32.4 Supply of copies of Contracts to contractors

32.4.1 Contract documents should be prepared and signed by both the parties. It should be stamped “Original”. Two true certified copies of contract agreement should be supplied to the contractor. One for site of work and other for his office/personal free of cost. For any additional copy required by the contractor, the following prices be charged for such copies:

S. N.	Contract amount of the work	Price to be charged
1.	Estimated cost (E.C) up to Rs. 5.00 crores	Rs. 500.00
2.	E.C. beyond Rs. 5.00 crores upto Rs. 10.00 crores	Rs. 1000.00
3.	E.C. beyond Rs. 10.00 crores upto Rs. 25.00 crores	Rs. 2500.00
4.	E.C. beyond Rs. 25.00 crores upto Rs. 50.00 crores	Rs. 5000.00
5.	E.C. beyond Rs. 50.00 crores	Rs. 10000.00

Note: For Global bids: To be decided by the NIT approving authority.

There is no objection to giving a copy of agreement second time to the contractor on payment, if a request is received from him.

- 32.5 Certification and safe custody of agreements**
- 32.5.1 The following instructions should be strictly followed regarding safe custody of agreements.
- 32.5.2 The original contract documents should be kept in the personal custody of the Engineer-in-Charge and should be given to the Accountant whenever required by him after obtaining acknowledgement.
- 32.5.3 One certified copy of the agreement should be given by the SM/SM(SG) to the Accounts Branch for day to day reference. Original agreement should ordinarily be required only at the time of final payment.
- 32.5.4 Every page of the agreement should be signed by the contractor and the Engineer-in-Charge.
- 32.5.5 The SM/SM(SG) should supply certified true copy of agreements especially of those which contain some special and unusual conditions or clauses to the Manager/ Asstt. Manager in-charge of works and stores. If for some reason or the other, it is not possible to supply copies of complete agreement, certified true copies of the special/unusual conditions or clauses alongwith schedule of quantities and schedule of materials should at least be supplied to concerned Manager/ Asstt. Manager for their information and guidance.
- 32.5.6 To avoid delay in finalisation of accounts of contractors, a certified copy of the contract should be made available to the Sr. Supdt. as far as possible at site of major works costing more than Rupees Five lacs. Where it is not possible, an extract of the agreement i/c schedule of quantities, rates, special conditions and specifications may be supplied.
- 32.5.7 As the agreements are required to be finally completed in the Divisional Office / Sub-Divisional Office before these are signed by the SM/SM(SG)/ Manager/ Asstt. Manager, it is very important that the agreements should be properly checked and compared in the office of SM/SM(SG)/ Manager/ Asstt. Manager with the Notice Inviting Tenders as approved by the competent authority. The Engineering Officer will be held personally responsible for any mistake which is found subsequently after the agreement has been formally signed in respect of agreements signed by the Engineers. Also, he should ensure that before copies of the accepted agreements are forwarded to the authorities concerned, they are complete in all respects.
- 32.5.8 The SM/SM(SG) should certify each copy including the duplicate copy of an agreements "True Copy" and put their full signatures in token of such certification. Similar action may be taken by the Manager/ Asstt. Manager in respect of agreements within his powers.

Also the original as well as the copies of an agreement should be properly sealed in the Divisional Office. Only true copy of the agreement should be circulated for internal purposes including payment etc.

## 32.6 Weeding out of old agreement

32.6.1 For weeding out of old agreement, a Committee consisting of the following should be constituted by the ED (Eng)..

1. GM (Engg)
2. DGM (Engg)/
3. DGM (F&A)
4. SM/SM(SG)/Asth. GM. Manager

The committee will review all agreements for which final bill has been paid at least 10 years earlier and will decide which of those are to be weeded out, considering the point given in (a), (b) and (c) below. The committee will record the following certificate before weeding out/destruction of such records.

- (a) The agreement are not required to be preserved for legal references, such as arbitration/court cases or any other claims of contractor/department.
- (b) The agreement are not required to be preserved for any pending Statutory Audit/Internal Audit/Paras/Settlement of any account affecting the exchequer.
- (c) The committee is satisfied that these records are no more required for any other referred cases etc., and no claims in respect of such records are likely to arise in future.

The committee will also prepare a list of such records as per enclosed proforma (**Annexure -3**) for all agreements weeded out.

## 32.7 Supplementary Agreements

32.7.1 In cases where it is not desirable to keep the complete contract open for minor items, execution of which is not immediately possible on account of certain pre-requisites which is not the responsibility of the contractor, the main contract may be finalised and the residual work may be got done through the same contractor by execution of a Supplementary Agreement. A form of supplementary agreement is placed at **Appendix-52**.

32.7.2 The authority competent to accept the tender will be the authority to order provisional closure of the original contract and drawing up the supplementary agreement. The formal agreement/contract should be signed between the parties incorporating the terms and conditions agreed. There should be no inordinate delay in signing the contract after the award of the contract to the successful tenderer/contractor, which will result in delays in the execution of the contract as a consequence thereof. The reasons for the delay, if any should be duly recorded in writing and brought to the notice of the Board immediately. The execution of the

formal agreement would, however, be a mere formality which shall not render the contract void ab initio, the terms of the contract having been mutually agreed upon by the parties.

- 32.7.3 The bill in relation to the work already done by the contract against the first or original agreement should be provisionally finalised on the Final Bill Form by adding the words “Provisional Final” on the top as well as against the entry “Serial Number of the Bill” of the said bill form. As per condition 2(f) of the Supplementary Agreement, the final bill relating to the entire work under the two agreements i.e., original and supplementary agreements should be prepared after completion of the entire work on the final bill form.

### **32.8 Percentage above/below under clause**

- 32.8.1 The percentage which the tendered amount bears to the estimated cost of the work put to tender should be on the basis of estimated cost of scheduled items except market related items of work and not on the net amount and it should be worked out upto 3 decimal places and then rounded off to two places of decimal.

### **32.9 Completion of agreements**

- 32.9.1 Adequate care should be taken to complete the agreement to be entered into between the contractor and the SM/SM(SG) for and on behalf of the Chairman, AAI. A complete agreement would consist of notice inviting tenders (which is invariably issued by the SM/SM(SG) irrespective of the fact whether he is competent to accept the tender or not). Pamphlet of Percentage Rate Tender or Item Rate Tender or any other form used for the contract. Schedule of quantities which indicate items of work, quantity, rates, unit, amount, letter of contractor submitting the tender, other letters of the contractor and the departmental officers before the tender is accepted, letter of the SM/SM(SG) communicating acceptance of the tender, Safety Code, model rules for protection of health and sanitary arrangements for workers employed by the Authority or its contractors, AAI Contractors’ Labour Regulations, Fair wages clauses etc. Incidents have come to notice where there are a number of correction slips resulting in dispute and disregarding claims of the Department. As such, special care is required to be taken to see that all corrections, additions, alterations or slips attached to the agreements are duly signed both by the contractor and the SM/SM(SG).

### **32.10 Escalation**

- 32.10.1 Price escalation is applicable for contract having stipulated completion period more than 12 (Twelve) months and estimated cost more than Rs. 100 lakhs.
- 32.10.2 Price variation for Cement, Steel and Bitumen should be based on Base price for Cement, Steel and Bitumen irrespective of period of completion and cost in accordance with technical instructions issued in this regard.
- 32.10.3 The wholesale price index for cement, steel and bitumen should be taken as published by the office of Economic Adviser Govt. of India from time to time.

Annexure- 3

(Reference Para 32.6)

**PROFORMA FOR WEEDING OUT AND DESTRUCTION OF OLD  
AGREEMENT**

<u>S. No</u>	<u>Name of work</u>	<u>Agreement No.</u>	<u>Agency</u>	<u>Date of Commencement</u>	<u>Date of completion (Stipulated)</u>	<u>Date of completion (Actual)</u>	<u>Estimated cost put to tender</u>	<u>Tendered amount</u>	<u>Percentage below/above</u>	<u>Vr. No. &amp; Date of final bill</u>	<u>Amount of final bill</u>	<u>Audit para if any</u>	<u>Arbitration case if any</u>	<u>Remarks</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>

**SECTION-33: EXTRA SUBSTITUTED & DEVIATED ITEMS OF WORK**

**33.1 Definition**

Deviation in the contract normally comprise of :

- a. New items of work i.e., items completely new and in addition to the items in contract. These are commonly known as Extra or Additional items.
- b. Substituted items i.e., items which substitute the existing ones or are taken up in lieu of those already provided in the contract. These can be with slight modification or partially omitting items of work in the contract.
- c. Deviation in quantities of items i.e., where there is increase or decrease in the quantities of items of work in the agreement. In other words, the nomenclature of work remains the same but the quantities vary with those provided in the agreement. In order to exercise effective control over deviation, instructions have been issued from time to time to keep these to the minimum and to obtain approval of the competent authority, where required. All plus and minus deviations beyond the stipulated limit stated below should invariably be approved by the T/S authority.

Deviation Limit:

(a)	Below Ground Level:Foundation Works	100% of the contract value of respective Item.
(b)	Above Ground Level.	30% of the contract value of respective item.
(c)	Items not included in contracts	30% of the contract value.
(d)	Overall deviation limit of the contract	30% of the contract value.

**33.2 Deviation to be avoided**

33.2.1 A SM/SM(SG)E is prohibited from making or permitting any deviations except trifling deviations from the quantities specified in the schedule of quantities except under specific authority of the competent authority or in the case of emergency. In the later case, the change should be forthwith reported to the competent authority to accord Technical sanction. Deviation / extra items / substituted items should be governed as per the Delegation of Powers [DOP].

33.2.2 To obviate large scale deviations after call of tenders, the following instructions should be followed :

- a. Detailed estimates should be based on adequate plans and design. Authority according technical sanction should satisfy itself that the proposals are structurally sound and estimates are based on adequate data.



- b. Architectural working plans and elevations and other detailed drawings which are required to be mentioned in the nomenclature of various items in the detailed estimate should be ready before sanctioning the detailed estimates. Structural details of foundations and roof of ground floor should also be ready by then. Specifications incorporated in the detailed estimates should be precise and comprehensive and should be scrutinised carefully by the Officer sanctioning the estimate.
- c. Changes in the specifications from those indicated in the contract documents should be made with the specific orders of the authority technically sanctioning the detailed estimate for the project.

### 33.3 **Prior sanction of competent authority necessary**

If deviations from the sanctioned plans and estimates become necessary, these should ordinarily be first discussed by the SA/SS/Jr. exe/AME/ME with the SM/SM(SG)E and if he agrees in principle, then the proposals should be formulated. The SM/SM(SG)E should be responsible to obtain the prior sanction of the competent authority to such deviations. The fact that the deviations are shown in the architect's plans should not be construed as having the sanction of the competent authority. The Architects should similarly obtain prior concurrence of the competent authority for making deviations from the approved plans on the basis of which, estimates have been framed and tenders called for. In the case of Architects the competent authority will be the same authority who has sanctioned the estimate technically.

### 33.4 **Powers to sanction rates for extra/substituted items etc.**

33.4.1 Officers of AAI have been delegated with powers to sanction rates of Extra & Substituted items of work in respect of each work as per the DOP, subject to the conditions laid down.

33.4.2 Wordings of extra/substituted items sanctioned by various authorities should be properly formulated so as to reflect the exact mode of execution in the field.

### 33.5 **Instructions for avoiding delays in sanctioning rates for Additional/Substituted items**

33.5.1 The rates of extra/substituted items which have not been approved by the competent authority may be paid to the contractor in the running account bills at part rates to be termed as "Provisional Rates". The provisional rates to be paid should not exceed :

- a. 90% of the rate recommended to the competent authority, if the rate is directly available in the Schedule of Rates and
- b. 75% of the rate recommended to the competent authority, if it is based on market rates.

The payment at provisional rates should be done only when prior approval in principle to execute the extra / substituted items has been obtained from the competent authority.

33.5.2

Delays in the sanctioning of rates for extra/substituted items of work should be avoided at all levels. To minimise such delays following procedure should be followed:

- a. proposal for fixing rates for the extra and substituted items of works should be submitted by the AME/ME as and when any extra/substituted item is foreseen. This should be done by him within a week of such foreseeing and in any case not later than a week of taking up the work on such item. He must also submit a complete analysis etc. to the SM/SM(SG)E who should approve the rate within a week of receipt of reference from the AME/ME, if the sanction is within his competence.
- b. The SM/SM(SG)E should take orders from the next higher authority, if the rates for the extra items are not within his competence of sanction. This can be done by personal contact/making a reference in writing within a week of receipt from the AME/ME according to exigencies/situation of work.
- c. The Engineering Officer should exercise powers delegated for the sanctioning of rates of item concurrently within their limits. It is only for after exhausting the individual powers. The item may be referred to the next higher authority. For instance if the SM/SM(SG)E has been empowered to sanction extra items upto Rs 75,000/-, he can exercise these powers even if the total amount of the extra items exceeds this amount i.e., he can sanction rates upto Rs 75,000/- and for the balance, he should obtain sanction of the DGM/JGM or the GM/ ED [Engg.] as the case may be. Similarly the DGM/JGM will sanction extra items upto the limit of their powers and for the balance they will seek sanction of the GM/ ED [Engg.]. This should be done in such a way that the Engineering Officer should not ask for sanction of the rates of an item for which he has sanctioned the rate himself.
- d. In order to avoid delay in finalisation of accounts of contractors, it should not be necessary for the SM/SM(SG)E to completely exhaust his powers of sanction of extra items before the DGM/JGM/GM commences exercising his powers. The SM/SM(SG)E should set aside about 15% of the amount for sanction of extra/substituted items of SM/SM(SG) all monetary value arising towards the end of the work under his own power out of this. 10% of the amount could be for schedule items and 5% for non-schedule items arising at the stage of final bill. Thus the SM/SM(SG)E would normally be expected to utilise about 85% of the amount of his powers of sanctioning extra items during the course of work before the DGM/JGM is required to commence exercising his powers.

- e. The SM/SM(SG)E shall send the statement of extra items to the ED ENGG through the DGM/JGM/GM Engg. and also send copies to the sanctioning authority i.e., the ED Engg. Simultaneously. The ED Engg. will, on receipt of the statement, complete the scrutiny pending receipt of the statement from the DGM/JGM/ GM with his remarks. In such cases DGM/JGM Engg. are required to examine the admissibility of an item with reference to the terms of the contract. They are required to ensure that the proposals sent to ED Engg. are complete with all necessary material for a proper check by DGM/JGM/ GM attached with ED Engg office. Further, the DGM/JGM/ GM should exercise check on the analysis of rates of extra items before forwarding the statements to ED Engg.
- f. Back references on the statements of extra and substituted items should not be made by the DGM/JGM/ GM attached with ED Engg. office more than once. If the case cannot be settled with one back reference, papers should be put up by the DGM/JGM/ GM attached with ED Engg. office to the ED Engg. concerned for arranging a meeting with the DGM/JGM/ GM and the SM/SM(SG)E concerned to settle the question or the ED Engg. would take other suitable action.
- g. The disposal of the statement of extra items etc. should be watched by the SM/SM(SG)E, DGM/JGM/ GM & ED Engg by having periodical review of cases pending in their offices. The Officers concerned should also give directions on such returns for the speedy disposal of such cases. They should not refrain from taking suitable disciplinary action against officials who hold the disposal of such cases.
- h. Extra items which are of general occurrence should be reported by the SM/SM(SG)E to DGM/JGM/ GM attached With ED [Engg.] office who shall forward the extra item to the competent authority for inclusion in the main schedule of rates.
- i. Payments for increased quantities of items within the deviation limit may be made as per contract rate and beyond the deviation limit may be made on part rates in anticipation of approval of the competent authority.

### 33.5.3

In order to avoid delays in the sanction of the rates for extra and substituted items, the cases submitted by SM/SM(SG)E/DGM/JGM/ GM should be complete in all respects. SM/SM(SG)E/DGM/JGM/ GM should explain the final implications and should also indicate as to how he is going to meet the extra expenditure involved in these items in the first instance. It should be ensured SM/SM(SG)E/DGM/JGM/ GM that they furnish the following information and details alongwith the case seeking sanction for the rates of extra and substituted items :

- i. Vouchers & proper quotations should be submitted in support of the market rates.
- ii. Analysis of rates should be self-explanatory and supported by proper drawings.

- iii. Remarks given by the DGM/JGM/ GM should be self-explanatory and nomenclature of the items should also be complete and properly worded.
- iv. While forwarding the extra items, SM/SM(SG)E/DGM/JGM/ GM should always explain in detail whether the contractor has asked for any rate supported by analysis and whether the standing orders that the Engineer-in-Charge shall determine the rates as per agreement conditions.
- v. In substituted item cases, analysis of rates for the original non-schedule item should always be enclosed by the SM/SM(SG)Engg.
- vi. Copies of the agreements should be enclosed alongwith the statements.
- vii. Copy of analysis of rate, if any given by the contractor.

33.5.4 In the case of deviation item statements, the following information should be furnished by the SM/SM(SG)E/DGM/JGM/ GM:

- i) Whether prior approval was obtained from the competent authority before exceeding the quantities beyond the permissible limits. If not, reasons for the same may be given. The proposal should be supported by information regarding prevailing rates for items of work for which the quantities were increased at the time of actual execution of such items.
- ii) In cases where local Schedule of Rates other than Delhi Schedule of Rates is referred to in the agreement, relevant extracts of the schedule of rates should be enclosed with the case by the SM/SM(SG)E/DGM/JGM/ GM.
- iii) Adequate justification for consumption of labour and material for non-schedule items should be given SM/SM(SG)E/DGM/JGM/ GM.
- iv) Drawings on which the analysis are based should also be enclosed by the SM/SM(SG)E/DGM/JGM/ GM.

### 33.6 **Fixation of rates for extra/substituted items**

33.6.1 For working out of rates under sub-clause (i), (ii), (iii) & (iv) of relevant clause of contract Form, the contractor is not required to submit his rates and these have to be worked out in accordance with the provisions made therein.

The same can be and should be done by the Engineer-in-Charge well in advance of the taking up of the work connected with the extra/substituted items in question and without waiting for any reference from the contractor.

33.6.2 As for sub-clause (v) of relevant clause the SM/SM(SG)E should within six weeks of the receipt of rates from the contractor, take action to have the rates sanctioned by the appropriate authority.

- 33.6.3 The rates should be determined by the sanctioning authority within the framework of relevant clause as included in the agreement. While doing so, equity and reasonableness of the rates should be kept in view.
- 33.6.4 In all these cases action for the fixation of rates should be taken on the basis of estimated quantities.
- 33.6.5 Similarly in the case of relevant clause, wherever there is likely to be decrease in the rates of items for quantities beyond the deviation limits mentioned in sub-clause (v) mentioned above, the responsibility for initiating action for the revision of rates devolves on the Sr. SA/SS/Jr. Exe./AME/ME. Here also action should be initiated as soon as the possibility of the excess comes to notice.
- 33.7 **Measurements for inadmissible items**
- 33.7.1 In case of items which are claimed by the contractor but are not admissible according to the Department, measurements should be taken for record purposes only and without prejudice so that in case it is subsequently decided to admit the contractor's claims, there should be no difficulty in determining the quantities of such work done. A suitable remark FOR RECORD ENTRY should, however, be made in red ink against such measurements to guard against payment in the ordinary way.
- 33.8 **Rates for extra items allowing profits & overheads on stipulated materials supplied to contractors**
- 33.8.1 2.5% may be added as profit & overheads over the issue rates of materials stipulated in the contract while analysing rates for extra items. The percentage represents the following charges :
- a. office expenditure of the contractor
  - b. storage of materials
  - c. handling expenses & other incidental charges
- The percentage does not include transport charges.
- 33.8.2 The rates of extra/substituted items either pertaining to contract of Percentage Rate Tender and Item Rate Tender may be worked out net i/c contractor's enhancement/abatement, and the fact should be prominently mentioned on the statement at the end that the rates include contractor's enhancement/abatement in the extra/substituted items.
- 33.8.3 A check list proforma conveying the information on preceding paras should be submitted alongwith draft statement for obtaining sanction of extra/substitute/deviation items from higher authorities viz. GM/ED Engg.

## SECTION-34: SITE ORDER BOOKS

### 34.1 Maintenance of Site Order Books

Site order (SO) books should be maintained in the form prescribed in **Appendix - 53**. The site order book should be printed and its pages machine numbered and issued by the SM/SM(SG)E in different sizes containing varying number of pages, depending upon the work. A fly-leaf should be attached with each site order book containing instructions regarding maintenance of site order books. These will be maintained properly and preserved for a period of 5 years or upto the time of disputes/arbitration cases of the work are finally settled, whichever is later after completion of a work in the same manner as a Measurement Book. The following procedure will be followed regarding the maintenance of site order book :

- a. Senior Officers of the rank of DGM and above shall communicate their observations by way of inspection notes in the prescribed in **Appendix -54** alongwith their detailed tour notes.
- b. So far as SM/SM(SG)E/ME/AME officers are concerned, they should invariably sign SO Books in token of their having read all the instructions issued by various Officers and replied made therein. In case SM/SM(SG)E/ME/AME themselves want to give any instructions, they should record them in the SO Book. In regard to important matters they may find it necessary to communicate such orders even in writing in the form of inspection notes.
- c. SA/SS/Jr. Exe Engg should also record their observations in the SO books, if they find any defective work going on or contractors not complying with the terms of contract. In places like Delhi, Kolkata etc. and other places where higher supervision is available, they should not, however, reject any work but communicate with the higher officers, if any, defective work are required to be rejected. In outlying stations, however, if necessary, they can record their views in connection with the rejection of bad work as well.
- d. SO books should be maintained on the site of works and should never be removed there from under any circumstances.
- e. The contractors or their authorised agents will also be at liberty to record their difficulties etc. in these books.
- f. The compliance of orders/instructions given by the Supervisory Staff should be recorded side by side in the SO books by SA/SS/Jr. Exe ./AME/ME/SM/SM(SG)E/ Asstt. GME with dated initials and the date of compliance.
- g. The SO Books should invariably be consulted at the time of making final payments to contractors.
- h. It has also been decided that the AME/ME, as the case may be, should record the certificate on the Running Account Bills to the effect that the SO

books have been consulted before signing such bills. This would enable the AME/ ME to ensure whether the defects pointed out during construction have been rectified or not and also to reduce the rates, if necessary, before the running payments are made for the items of defects pointed out which have not been rectified.

- i. Incidentally, difficulty may be experienced in sending SO books with every Running Account Bill. In such cases, the ME while forwarding the Running Account Bills should append a certificate to the effect that no items of work in respect of which defects had been pointed out in the SO books and which have not yet been rectified, have been measured and recorded in the MB and that no such items of work are proposed to be paid in this running bill except the following for which the reduced rates have been shown against each other.

## **SECTION-35: ISSUE OF MATERIALS TO CONTRACTORS**

### **35.1 Issue of Material**

Issue of materials to works, whether from stock or by purchase, transfer or manufacture, are divided into two classes :

35.1.1.1 Issue to contractors : Issue of materials to contractors with whom agreements in respect of completed items of works i.e., for both labour and materials have been entered into.

35.1.1.2 Issue direct to works: Issue of materials when work is done departmentally or by contractors whose agreements are for labour only.

35.1.2 The issue of materials to contractors, who have contracted for completed items of work is generally permissible only in the following circumstances:

- i When it is necessary to retain in the hands of AAI the supply of imported materials.
- ii When in the interest of work or with the object of utilising existing stocks of materials, it is desirable to retain in the hands of AAI the supply of certain other material as well, and a condition to this effect has been inserted in the contract.

35.1.2.1 In both cases the contract should specify (1) the material to be supplied by AAI for use on the work, (2) the place or places of delivery and (3) the rates to be charged to the contractor for each description of material and the contractor should be held responsible for obtaining from AAI all such materials required for the work and for making payment thereof, by deduction from his bills, at the rates specified, regardless of fluctuation in the market rates or in the stock rates of the Division. Conditions for supply of departmental materials should be so explicit that no doubt or ambiguity is left which may encourage the contractor to derive undue financial benefit subsequently. The tender documents should include the specific items of work for which materials are intended to be issued by the department with detailed description of materials.

35.1.2.2 In the MAS Accounts and in the unstamped receipts obtained from the contractors for the materials issued to them (especially in the case of electrical materials and fittings) and even when these are issued free of cost, as stipulated in the agreement, make of materials/fittings and full technical details of the accessories should be clearly indicated to ensure that the same materials/fittings as issued by the AAI are kept in safe custody by the contractor at all times and used on the works for which these are issued.

35.1.2.3 It is not permissible for the contractor to obtain the materials otherwise where the contract stipulates the issue of materials by the department unless in a case of emergency the supply has been entrusted by the Engineer-in-Charge for recorded reason to the contractor himself at suitable rates.



**Note:** The rates to be charged to the contractors for materials to be supplied should be definitely specified (vague provisions e.g. at stock rates being avoided) and if intending contractors had been told that the materials would be supplied at certain rates and asked to tender on that assumption, then that rate should be adhered to in the contract.

35.1.2.4 No cartage or incidental charges are borne by AAI for moving the materials beyond the place where the contractor has agreed to take delivery thereof.

## 35.2 **Issue of materials when not stipulated:**

35.2.1.1 As a general rule, no other material should be supplied to contractors for use on works but this restriction may be waived by the Manager/ Asstt. Manager in respect of petty issue (at full issue rates) of materials from existing stocks, not exceeding Rs 250/- in any month for any one contract.

35.2.1.2 If at any time subsequent to the execution of a contract on a thorough rate basis the contractor desires the issue to him for use on a work of materials which exist in AAI stocks, but the supply whereof by AAI was not provided for in the contract, the materials should not be issued except with the express authority of the DGM who should specify in each case the rate to be charged for the materials inclusive of delivery at the place where they are stored. When submitting such a case to the DGM, the SM/SM(SG) should elucidate the circumstances which gave rise to this contingency and should also add his recommendations in respect of the recovery rates for such materials. The rate charged for the materials should be that provided in the analysis of rate for item of work on which it would be used plus or minus the percentage above or below the schedule rate allowed in the contract or market rates or stock issue rate plus storage charges whichever is higher. No cartage or incidental charges should be borne by AAI in connection with the supply.

35.2.1.3.1 Where the finished item in which the materials to be used is available in the agreement, while adopting the three rate formula, the rate as per analysis should be taken as basic rate adopted in the analysis of rate plus 7.5% contractor's profit multiplied by the percentage of the rate quoted for that particular item bears to the estimated rate of the item. In case the same material is to be used in more than one finished item this percentage should be worked out on an average basis taking into account the tender rates and estimated rates for these items (weighted average).

35.2.1.3.2 Where the finished item in which the material is to be used is not available in the agreement or where its rate is derived according to relevant clause of the agreement, the element of rate for the materials taken in the analysis of rate of the item should be considered while applying the three rate formula.

**Note:** The intention of this rule is to prohibit the supply of material to contractors with the object of giving them financial aid.

35.2.1.4 Issue of stock materials to contractors for bona fide use on works are exempted from the usual charge of 10% on account of supervision and contingencies, which is made when stock materials are sold to the public.

- 35.2.2 In cases in which the AAI undertake to supply materials to contractors, full description of materials as also its condition should be indicated in the relevant conditions of agreement with a view to safeguard the interest of AAI.
- 35.2.3.1 SM/SM(SG) should not make any provision in the tender for the supply of materials by the Deptt to the contractors if the materials are not available for issue from the AAI stores. While inviting tenders, therefore, provision for issue by the Deptt of only those materials should be made, which are available or of which there are reasonable chances of availability, so that the necessity for suspension of work or delay in its execution may not arise. If in any case the materials, the supply of which is stipulated in the contract do not become available in time for supply to the contractor, then the supply must be arranged by the SM/SM(SG) by purchasing the materials from other sources and then supplied to the contractor at the stipulated rates as required under note below para 35.2.2.3.
- 35.2.3.2 Where a non-stipulated material is to be made available to the contractor in the interest of work, instead of procuring it departmentally and issuing to the contractor free of cost and allowing him extra item for labour charges, the department may render necessary assistance to the contractor in the procurement of the material and the issue rate worked out in accordance with para 35.3.2.
- 35.3 **Issue, supply and recovery of cost of materials**
- 35.3.1 An unstamped but dated acknowledgement detailing full particulars of the material i/c rates and value chargeable to him should immediately be taken from the contractor as soon as any material required for issue to the contractor is made available to him.
- 35.3.2 Cement and steel are the major items which are stipulated for issue in most of the contracts in the Deptt. It should be clearly borne in mind that stores issued to the contractors under the term of their contract are intended for the exclusive use and consumption on the work, for which these are issued. There is inherent risk of their pilferage and misuse if such stores are issued in bulk to contractors long in advance of their actual requirement. It should be ensured that the materials are not issued to contractors arbitrarily and without keeping eye on the actual requirements at site. To safeguard and prevent such invisible losses to AAI, it is essential that issues to contractors should be regulated and restricted to actual requirement.
- Although the contracts for works provide for comparison of actual consumption of cement issued to the contractors and theoretical consumption of the works, the SM/SM(SG) should keep a broad check on the consumption of cement at various intermediate stages of works also to make sure that there is no pilferage and misuse of cement.
- 35.3.2.1 The theoretical consumption statement for consumption of cement on the work executed from the start of the work upto end i/c the work included in the bill should be invariably prepared alongwith every running bill. This should be got signed from the contractor at the time of obtaining his signature on the running account bill so that he is aware of the basis on which the theoretical quantity of

cement is worked out and it may be possible for the contractor as well as the Deptt. to exercise a check over the consumption of cement during the execution of work. The theoretical quantity so worked out should be compared with the actual issue of cement as per cement register as on the last date of the measurement of the work. Should there be any difference beyond the normal limits of variation between these two quantities, such difference should be properly explained both for less or more consumption and the SM/SM(SG) should go into such explanations and give his directions about the actual progressive recovery to be made from that bill. Any undue excessive variation should be reported to the DGM for such order, as he may deem fit.

- 35.3.3 Various instructions regarding checking of cement godowns should be followed vigorously. It would be very desirable to check the cement godowns before a fresh indent for cement to the contractor.
- 35.3.4 For making comparison of the actual consumption of steel with the theoretical consumption, each diameter of steel bars should be treated as an individual item issued departmentally and check on theoretical consumption should be applied to each diameter.
- 35.3.5 Theoretical consumption statement for steel bars should be prepared alongwith every running bill. Should there be any case of issue being less or just equal in any particular diameter/section than the actual consumption, this should be properly investigated. If such issue diameter wise/section wise or in total is very much higher than the consumption, it should be generally ensured that balance steel is available at site in good condition and this should be certified by the Manager/Asstt. Manager. Any serious discrepancies noticed should be reported to the DGM. The issue of reinforced or structural steel should not be made too much in advance of the actual requirements at site. Normally issue should not exceed beyond the requirements of the next two/three months at the site. However, depending on the type and importance of work, this should be issued in advance for any particular work, availability and scarcity of steel, if more quantities are required to be issued in advance for any particular work, this should be done with specific approval of SM/SM(SG). The steel issued to the contractors should be properly stacked at site in a proper accountable manner till it is consumed in the work.
- 35.3.6 Similar particulars should be taken in the case of all other materials issued by the department.
- 35.3.6.1 In the judgement of the Delhi High Court delivered in Civil Suit No. 27-A/75 Mehta Teja Singh & Co vs. Union of India etc. the High Court have upheld that recovery at double the issue rate for the excess quantity of material issued than the quantity calculated on theoretical basis under relevant clause of the contract forms Percentage Rate Tender and Item Rate Tender as justified.
- 35.3.6.2 It follows, therefore, that relevant clause for issue of materials of forms Percentage Rate Tender and Item Rate Tender does not recognise the contention, if any, of the contractor that the material issued in excess of the theoretically required quantity

was actually consumed in the work. In view of this, it is particularly essential for the Engineer-in-Charge never to admit that the entire quantity of material issued had actually been consumed in the work otherwise this would leave room for the arbitration in favour of the contractor.

- 35.3.6.3 It is generally noted that in the counter statement of facts, the Engineer-in-Charge deposes that recovery at double the issue rate is in respect of excess consumption of materials, which is not legally in order. In future, no mention of such sort should be made by the Engineer-in-Charge in any statement or otherwise. The recovery at double the issue rate forms the reasonable compensation for the breach of the contract provision and is not in the nature of penalty.
- 35.3.6.4 From the legal angle, it is absolutely necessary that a notice in writing should be issued by the Engineer-in-Charge to the contractor to return the materials issued in excess of the theoretical quantity as provided under relevant clauses of contract for issue of materials. Only, thereafter, action for recovery, may be taken. The words “penal recovery” or “penal rate recovery” must never be used for such double rate recoveries.
- 35.3.6.5 On the authority of the contractor’s acknowledgement the cost recoverable from him should be debited at once to his personal account by charge to the suspense head “Contractors other transactions” in the accounts of the work concerned.

#### 35.4 **Issue Rates**

- 35.4.1 Issue rates of cement, steel or any other items in the contracts should not be less than the market rates of these commodities irrespective of the issue rate of the AAI Stores. The credit due to less issue rate of the AAI Stores will automatically go to the work and may be considered for the purpose of estimating the cost of the work before accepting the tender vis-à-vis the provisions in the estimate.
- 35.4.2 In case there is a substantial difference between the rates prescribed in the tenders for materials stipulated for issue by the department and the rates for such items on which the estimated cost put to tender is based, the tendered cost quoted by the contractor will comparatively be higher resulting in increased percentage under relevant clause. In order to eliminate this anomaly, estimated cost put to tender should be correspondingly increased by the amount equal to the cost of materials stipulated for issue at the difference in rates of issue and the rates adopted in the estimate, so that the tender cost does not result in higher percentage.
- 35.4.3 In the case of tenders to be invited on Item Rate Tender, there will not be any practical difficulty in showing the increased estimated cost by adding increased cost of issue rates over schedule rates or materials stipulated for issue in the tender forms. However, in the case of tenders to be invited in form Percentage Rate Tender, in the schedule of quantities such extra cost will have to be worked out and its percentage over the estimated cost of item of work at schedule rate will have to be determined (say “Y”). In the schedule of quantities put to tender, after showing total cost of all items at normal schedule rates, additional cost due to enhanced issue rate should be added as a predetermined percentage of total cost of all items

of work and the grand total after such addition be indicated in the tender papers as 'Estimated cost'. For example :

Total of all items of work at schedule/analysed rate	Rs-----
Add "Y"% due to issue rate of material being more than that in DSR	Rs-----
 Total estimated cost	 Rs-----

35.4.4 In the blank space in relevant clause, the schedule to be mentioned will have to be stipulated as "Schedule of rates..... plus "Y"%." "Y" being the percentage (nearest to first place of decimal) that the "Extra cost due to higher issue rate of materials" bears with the "Estimated cost on Schedule Rates"(A).

35.4.5 It is further clarified that where percentage of "Extra cost due to higher issue rate of materials" viz. "Y" is less than 5% of the "Estimated cost on schedule rates" viz. "A", such increase need not be taken into account for enhancing the estimated cost put to tender.

35.4.6 The recovery from a contractor on account of the cost of material issued to him for use on a work should ordinarily be made by deduction from the "first bill" authorising an advance payment or on an account payment to him for the work. The SM/SM(SG) may, however, permit the recovery to be effected gradually as the materials issued to the contractor are actually used in the construction and the items of work in which they are used are paid for, whether by an advance payment or by an on account payment.

35.4.7 As the issue of materials to contractors under the foregoing rules is permissible for the bona fide requirements of AAI, Manager/ Asstt. Manager should maintain a numerical account so as to ensure that the aggregate of the quantities of any or all materials issued to contractors from time to time for use on work remain within the estimated requirements of the contract. This precaution is particularly necessary when the rates on which any materials are issued are lower than the prevailing market rates or the later expected to rise appreciably.

**35.5 Return of surplus materials**

35.5.1.1 Stores supplied by AAI: If specifications or schedule of items provide for any special description of materials to be supplied from Engineer-in-Charge' stores or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-Charge as shown in the schedule of materials annexed, the contractor should be bound to be supplied such materials and stores as are from time to time required to be used by him for the purpose of contract only and the value of the full quantity of the materials in stores so supplied at the rates specified in the said schedule of materials may be set off and deducted from any sums then due, or thereafter to be due to the contractor under the contract or otherwise against or from the security deposit or the process of sale thereof, if the same is held in AAI

securities and the same or a sufficient portion thereof being in this sold for the purpose. Notwithstanding anything to contrary contained in any other clause of the contract, all stores/materials so supplied to the contractor or procured with the assistance of the AAI shall remain the absolute property of the AAI and the contractor should be the trustee of the stores/materials so supplied/procured and such stores/materials should be removed/disposed off from the site of the work on any account and should be all open to inspection by the Engineer-in-charge. Any such material remaining unused should be returned to Engineer-in-Charge at a place directed by it by a notice by him he shall so require but in case it is decided not to take back the stores/materials the contractor shall have no claim for compensation on any account of such stores/materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to such stores/materials.

- 35.5.1.2 On being required to return the stores/materials, the contractor shall hand over the stores/materials on being paid or credited such price, as the Engineer-in-Charge shall determine, having due regard to the condition of the stores/materials. The price allowed to the contractors, however, shall not exceed the amount charged to him, excluding the storage charge, if any. The decision of the Engineer-in-Charge should be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of licenses or permit and/or for criminal breach of trust, be liable to AAI for all advantages or profits resulting or which in the usual course would have resulted to him by reasons of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non supply thereof of all or any such materials and stores. Provided further that the contractor should be bound to execute the entire work if the materials are supplied by the AAI within the scheduled time for completion of the work plus 50% thereof (scheduled time plus 6 months if the time of completion of work exceeds 12 months) but if a part only of the materials have been supplied within the aforesaid period then the contractor should be bound to do so much of the work as may be possible with the material and stores supplied in the aforesaid period.

For the completion of the rest of the work, the contractor should be entitled to such extension of time as may be determined by the Engineer-in-Charge whose decision in this regard should be final.

- 35.5.1.3 Surplus materials which were originally procured by the contractors for themselves can also be taken over by AAI if required for use on other works in progress, only on special arrangements and at the prevailing market rates (i.e., rates at which the article or articles of similar description can be procured at a given time at the stores/godown from the public market suitable to Divn. for obtaining a supply thereof).

**Note:** Contractors are, however, not at liberty to remove from the site of works, without written permission of the SM/SM(SG), materials which have been issued to them for use on a work and a stipulation to this effect should ordinarily be

issued to them for use on a work and stipulation to this effect should also be entered in their agreement.

35.5.2 The rules in para above do not apply to tools and plants. Articles borne on the Tools & Plant account of the Divn may, in accordance with any local rules on the subject, be lent temporarily to contractors for use on AAI works being executed or maintained by them.

35.5.3 The exact proportion in which the materials are to be used by the contractor for which he has tendered for finished items of works as laid down in the specifications should be obtained. Theoretical quantities of the materials which should have been used by the contractor on execution of the work should be calculated according to the specifications provided in the contract. According to relevant clause of the agreement, difference of theoretical consumption and the total actual issues not returned by the contractor, is to be recovered at the prescribed rate after permitting variation allowed therein. Similarly the cost of the materials less used, based on the stipulated issue rates etc. is to be regulated according to the provisions of the said clause.

35.5.4 In order to discourage contractors from doing bad work, no allowance is to be given for the materials issued for rectification of defects, nor any separate account kept for such issue of materials. The materials issued on this account is to be treated as part of the total issue of materials to the contractors for the purpose of working out the difference of theoretical consumption and the total actual issues and the recovery at prescribed rate etc. in terms of relevant clause of the agreement indicated in the preceding para.

35.5.6 If, however, it becomes necessary to issue cement for rectification of defects or for redoing works necessitated due to natural calamity beyond the control of a contractor i.e., floods, earthquakes etc., such issues should be treated as legitimate consumption on works and should not be charged at rates higher than the issue rates. On the question whether redoing of work or rectification of defects had, in a particular case, been necessitated by natural calamities etc., the decision of the ED Engg concerned will be final.

35.5.7.1 In order to minimise the chances of pilferage of cement from the site of works, it has been decided that the cement godowns should be properly and effectively double locked, keys of one of the locks remaining with the Deptt and that of the other with the contractor.

35.5.7.2 Even when the cement is arranged by the contractor himself, it should be kept in godowns under double locks and keys and its consumption account invariably maintained, as is done in respect of departmental issue of cement. A register should be maintained at the site of work by SA/SS/Jr. Ex. Engg costing above Rs 20,000/-.

The pages of the register should be machine numbered and each page initialled by the SM/SM(SG). The columns in the register mentioned above will be provided by the SM/SM(SG)s or the AME/ME. The cement godown and the register are

required to be checked by the AME/ME/SM/SM(SG)E in-charge of the work at the following intervals:

- i. At least weekly or fortnightly, respectively in case of works at the Hqrs of AME/ME/SM/SM(SG)E and
- ii. Whenever they visit the site of work in case of works located outside the Sub-Division/Divisional Hqrs.
- iii. In the case of large concentrated projects etc., the SM/SM(SG) should check the cement register at least fortnightly.

### 35.6 **Instructions regarding storage of cement in godowns**

It will be the duty of the SM/SM(SG) to see that these instructions are strictly followed by all the AME/ME working under them by actual inspection. The cement bags should be stacked on proper floors consisting of two layers of dry brick laid on well consolidated earth at a level at least 30 cms above the ground level. These stacks should be in rows of two deep and 10 high with a minimum of 60 cms clear space all round. The bags should be placed horizontally and contiguous in each line as per condition for the issue of material of contract.

### 35.7 **Issue of next half day's cement requirements**

Because of the double locking system of the cement godowns, it is necessary that the SM/SM(SG) should ensure that the Deptt's representative should reach the godown site in time every morning to enable the cement to be taken out of the godowns for starting the work. They may also, if necessary, permit the issue in the evening some extra cement adequate to start the works next day to the contractors of all classes. They should ensure that the extra cement issued is not more than half day's requirement for a particular work. Such issues should also be shown in the cement register.



## SECTION 36: EXTENSION OF TIME AND COMPENSATION FOR DELAY

### 36.1 General

- 36.1.1 At the time of issuing notice-inviting tenders for a particular work the Engineer-in-Charge should specify the time allowed for completion of the work consistent with the magnitude and urgency of the work. The guideline for completion periods are as per **Appendix -55**.
- 36.1.2 The time allowed for carrying out the work as entered in the contract should be strictly observed by the contractor and should be reckoned from the .....th day (as mentioned in the NIT) after the date on which the orders to commence the work is given to the contractor.
- 36.1.3 The work shall through out the stipulated period of the contract be proceeded with all due diligence (time being deemed to be the essence of the contract) on the part of the contractor.
- 36.1.4 To ensure good progress of the work during the execution, the contractor should be bound, in all cases, in which the time allowed for any work exceeds one month (save for special job), to complete 1/8<sup>th</sup> of the whole of the work before 1/4<sup>th</sup> of the time allowed under the contract has elapsed, 3/8<sup>th</sup> of the work before 1/2<sup>th</sup> of the time has elapsed and 3/4<sup>th</sup> of the work before 3/4<sup>th</sup> of such time has elapsed. However, for special jobs if a time schedule has been submitted by the contractor and the same has been accepted by the Engineer-in-Charge the contractor shall comply with such time schedule.

### 36.2 Application for Extension of Time

- 36.2.1 If the contractor shall desire an extension of time for completion of work on the grounds of his having been unavoidably hindered in its execution or on any other ground he shall apply in writing to the Engineer-in-Charge within 30 days of the hindrance on account of which he desires such extension as aforesaid, and the Engineer-in-Charge shall, if in his opinion (which should be final) reasonable grounds to be shown therefore, authorise such extension of time, if any, as in his opinion be necessary or proper after obtaining necessary approval of the competent authority as per DOP. Notwithstanding anything above, however, provisional extension will be granted by the Engineer-in-Charge to keep the contract alive, well before the actual stipulated dated of completion of the work as per contract up to the expected date of completion of the work. This provisional extension of time will be granted without prejudice to the right of AAI to recover the liquidated damages in accordance of provision of relevant clause of the agreement. On actual completion of the work the Executive Engineer/Project Manager shall process the case of grant of final extension of time and obtain its sanction from the competent authority. Provisional extension of time shall be issued in the standard Performa given in **Appendix-56**. The grant of extension of time should be the sole discretion of the Engineer-in-Charge or any other competent authority as per DOP or as provided under the contract and shall not be claimed as a matter of right by the Contractor. The extension sought for is to be granted after due consideration and

satisfaction of the reasons furnished by the Contractor. As and when decision is taken to grant the extension of time sought for, steps should be taken to safeguard the interest of AAI, including inter alia the levy of Liquidated Damages (LD) in terms of the contract.

36.2.2 The incorporation of provision for extension of time in the contract would set to naught 'time as an essence of the contract' and the contract would not be voidable, as would have been the case if there is no provision for extension of time. Under these circumstances AAI would be entitled to Liquidated Damages as follows:

For repair works costing upto Rs 10.00 Lakh:

1.0% (one percent) of contract value per week of delay subject to maximum of 10% (ten percent) of the contract value.

For all other works:

0.5% (half percent) of contract value per week of delay subject to maximum of 10% (ten percent) of the contract value.

### 36.3 **Extension of Time**

36.3.1 Relevant clause in the tender form empower the Engineer-in-Charge to grant extension of time for the completion of the work on certain conditions. He can exercise such powers if the following conditions are satisfied.

- (a) The contractor must apply to the Engineer-in-Charge ..... for extension of time.
- (b) Such application must state the grounds which hindered the contractor in the execution of the work within the stipulated time.
- (c) The Engineer-in-Charge must be of the opinion that the grounds shown for the extension of time are reasonable.

36.3.2 According to the terms of the contract the Engineer-in-Charge has full powers to issue letter granting extension of time under his signature, but the orders on the application of the contractor connected with the agreement accepted by the authorities higher than the Engineer-in-Charge should be issued by him with the prior approval of the authorities who have been given such powers to grant extension of time as per DOP.

36.3.3.1 The opinion of the Engineer-in-Charge whether the grounds shown for the extension of time are or are not reasonable is final. If the Engineer-in-Charge is of the opinion that the grounds shown by the contractor are not reasonable and declines to grant extension of time, the contractor can not challenge the soundness of the opinion by reference to arbitration under the contract. The opinion of the Engineer-in-Charge that the period of extension granted by him is proper or necessary is not, however final. If the contractor feels that the period of extension granted is inadequate he can require arbitration under the contract on the question whether the period of extension is or is not proper or necessary.

36.3.3.2 The powers for grant of extension of time have been delegated to AAI Officers as per Delegation of Powers.

36.3.3.3 In deciding the authority which is competent to grant extension of time the value of individual contract should be the amount exclusive of the value of materials stipulated to be supplied by the AAI.

#### 36.4 **Grant of Extension of Time without Application**

36.4.1 Where adequate and proper ground exist the Engineer-in-Charge may grant extension of time even in the absence of application from the contractor.

36.4.2 The extension, in order to be binding, will have to be by parties 'agreement' express or implied. It, therefore, follows that if the extension of time is granted by the SM/SM(SG) and such extension of time is accepted by the contractor, either expressly or implied by his action before and subsequent to the date of completion, the extension of time granted by the SM/SM(SG) is valid. It is therefore necessary that the SM/SM(SG) grants extension of time even when the contractor does not apply for extension of time in order to keep the contract alive. If the contractor refuses to act upon the extension granted by the Engineer-in-Charge it will attract the provisions of clauses dealing with compensation for delay & rescinding of contract under the agreement.

36.4.3 The levy of Liquidated Damages for delayed performance would be distinct matter and would depend on :

- (i) Prior notice as contemplated by Sec.55 of the Contract Act, 1872
- (ii) Fault/delay/hindrance being ascribable to the Contractor and
- (iii) Proof of the loss occasioned thereby (in case it is challenged by the Contractor before the arbitrator)

#### 36.5 **Form of Application for Extension of Time**

36.5.1 The form of application for extension of time to be submitted by the contractor should be standardised form at **Appendix-57**. Part – I of the form is on which the contractor is required to apply for grant of extension of time. Part – II of the form is to be used by the Departmental officers for purposes of dealing with the application for extension of time.

36.5.2.1 Whenever any hindrance comes to the notice of the Engineer-in-Charge, he should at once make a note of such hindrance in the register kept in the form of prescribed in **Appendix - 58**.

36.5.2.2 Record of hindrance on account of rainfall: Rainfall is one of the main hindrance in completing the project work as per scheduled time of completion.

It is essential that hindrance on account of rainfall is recorded meticulously to facilitate processing Final Extension of Time cases in respect of contract works.

A proforma devised for record of weather report is at **Appendix -59**. It is enjoined upon all the engineers supervising the execution of various capital and maintenance works at Airports to ensure that monthly weather reports are strictly maintained during the contract duration as per the enclosed proforma.

- 36.5.3 In cases where the sanction of the higher authority to the grant of extension of time is necessary the Engineer-in-Charge should apply for the same as soon as possible and if the orders of the competent authority are not received in time, he should extend the contract before the stipulated date actually expires so that the contract might remain in force but while communicating this extension of time, he must inform the contractor that this was without prejudice to AAI's right to levy compensation under provision (Relevant clause) of the agreement. [Reference to clause must be given]
- 36.5.4.1 Sanction of Extension of time will in all cases be issued by the Engineer-in-Charge under relevant clause of the Agreement in the proforma at **Appendix -60**. The form provides that the extension of time is granted without prejudice to right of AAI to recover liquidated damages in terms of clause of the agreement. In all cases, a copy of letter granting extension of time will be endorsed to SM/SM(SG)/DGM/JGM(Accounts). While doing so it should be made clear in the endorsement whether the competent authority has decided to levy or not to levy compensation or liquidated damages.
- 36.5.4.2 It has also been decided that the decision in regard to levy of liquidated damages for delay in the execution of works in terms of relevant clause of the contract dealing with compensation for delay should be recorded in the measurement book of the work concerned.
- 36.6 **Extension of Time without Liquidated Damages**
- 36.6.1 In the case where extension is granted without levy of compensation after approval of the competent authority, it was opined by the Ministry of Law that provision suggested in the preceding paragraph should stand with a view of safeguarding the interests of AAI especially against unforeseen circumstances (Proforma is at **Appendix-61**).
- 36.7 **Compensation under Agreement**
- 36.7.1 The word compensation should be used in relation to clause relating to levy of liquidated damages of the agreement Percentage Rate Tender and Item Rate Tender and similar clauses in other contract forms instead of the word penalty.
- 36.7.2.1 The Officer (Delegated) exercises full powers to decide the quantum of compensation recoverable from contractors for delay in execution of full/part of the work, subject to the condition that the quantum of compensation once levied by him shall not be changed without the approval of the authority as per DOP. The quantum of compensation shall commensurate with the loss suffered by AAI due to the delays in the execution of the contract in order to be sustainable in law in terms of Section 73 of the India Contract Act

36.7.2.2 As indicated above, the officer is competent to decide the quantum of compensation recoverable from contractors for delay in the completion of work, while exercising these powers, can levy lesser compensation if the circumstances of a case so demand depending upon difficult conditions in which a contractor has to work. In order that there may be no criticism of the action taken by the officers to levy lesser compensation, it has been decided that the officer concerned should record detailed reasons as to why a lenient view was taken by him.

36.7.2.3 The Officers delegated full powers to decide the quantum of compensation are required to exercise special and extra care while deciding levy of damages for belated construction where higher rates have been paid for early construction.

36.7.2.4 In case of clarification on the computation of damages the officer may seek the opinion of the legal department.

36.7.3 Under relevant clause of agreement and powers delegated, different officers are competent to waive and/or reduce the compensation recoverable from a Contractor. In all cases where compensation has been imposed whether rightly or wrongly and recoveries have been made, prior concurrence of Chairman would be necessary for refund of any amount.

## 36.8 **Liquidated Damages:**

36.8.1 Liquidated damages for delay in respect of contract wherein irrecoverable letter of credit (LC) to be opened for foreign supply or supply and installation contract should be as follows:

- a) Quantum of compensation should be as per our standard contract.
- b) Mode of recovery should be
  - (i) Foreign currency element of contract :- The LC payment clause should be drawn such that the second or third stage LC release payment shall take care of the compensation for delay etc. Actual quantum of levy should be determined by accepting authority of the contract if any and the balance portion of LC should be released accordingly.
  - (ii) Rupee element included in foreign contract : - Quantum of delay for rupee element should be determined proportionately and same should be recovered from the rupee element of the contract.
- c) The above terms should be part of tender / contract and LC terms.

## 36.9 **Section 74 of the Indian Contract Act**

36.9.1 When a contract has been breached, and if sum is named in the contract as the amount to be paid in case of such breach or if the contract contains any other stipulation by way of compensation, the party complaining of the breach is

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entitled, whether or not actual damage or loss is proved to have been caused thereby to receive from the party who has breached the contract reasonable amount not exceeding the one so named or as the case may be the compensation stipulated for.

- 36.9.2 According to the agreement, provisional letters of extension of time to be issued to the contractor should be under the signature of Engineer-in-Charge as he is the only officer so empowered contractually to grant extension of time. Similarly all letters intending to impose compensation or to recover liquidated damages under relevant clause of the agreement should be issued under the signature of authority as provided in contract as he is the only Officer competent to do so under the agreement in order to fulfill contractual obligation.
- 36.9.3 Guidelines for processing Extension of Time and final bill in respect of contract:
- 36.9.3.1 The completion certificate should be issued immediately on completion of the work and thereafter the Engineer in-Charge shall issue a letter to the contractor at **Appendix -62** that the completion of the work is recorded and the prescribed application for final extension of time should be submitted by the contractor within 21 days of the letter.
- 36.9.3.2 If the contractor fails to submit the application form within prescribed date, the Engineer-in-Charge shall process the final extension of time case based on the hindrances recorded. For all such cases the engineer in-charge shall finalize the EOT case within 30 days from the date of completion of the work.
- 36.9.3.3 In case the competent authority to grant EOT is other than Engineer-in-Charge, the final extension of time case should be forwarded to the concerned DGM (Engg) within 30 days of completion of the work. The DGM (Engg) shall process the case and decide within 7 days of receipt from the SM/SM(SG)E/Asstt. GME. Similarly the GM (Engg) shall finalize the case within 7 days from the date of receipt at his office.
- 36.9.3.4 The final bill including extension of time should be processed by the Engineer-in-Charge within a period of 45 days from the certified date of completion for work where completion period is 12 months and within 60 days for work where completion period is more than 12 months.
- 36.21.5 All pending cases of EOT/final bill should be clearly mentioned in the handing over/taking over notes by Managers/SM/SM(SG)/Asstt. GM and responsibility will lie with the relieving officer to accomplish the pending task.
- 36.9.3.6 A quarterly statement should be submitted by the Engineer-in-Charge to the GM (Engg) concerned indicating the final extension of time cases pending with relevant details. The GM (Engg) shall review the quarterly report of the Engineer-in-Charge and take corrective actions to expedite the processing.

36.9.3.7 While scrutinizing the applications submitted by the contractors grounds advanced for delay should be thoroughly checked and wherever required documentary evidence to establish the same should be called for.

36.10 **Bonus / Incentive**

36.10.1 Bonus / Incentive for early completion of entire work should be payable @ 1% (one percent) of the contract amount per month, subject to a maximum of 5% (five percent) of contract amount. For early completion in part period of the month, the incentive should be calculated on proportionate basis. Incentive clause should be operated by considering the original time schedule and not on extended time, due to any reason whatsoever.

36.10.2 The incentive clause for early completion should be adopted only on a selective basis restricted to contracts where the time is the essence of the contract and early completion gives tangible benefits in terms of additional revenue or operationlisation of important facilities for passengers and other safety related targets to be achieved by a given date or any other similar factor.

## **SECTION – 37: PAYMENTS TO CONTRACTORS**

### **37.1 General**

The conditions of Percentage Rate Tender/Item Rate Tender and Item Rate for supply of material provides that no payments should be made for works or supplies estimated to cost less than Rs. 1lakh till after the whole of the work or supply shall have been completed and a certificate of completion given. In the case of works or supplies estimated to cost more than Rs. 1 lakh the contractor shall on submitting the bill therefore be entitled to receive a monthly payment proportionate to the part thereof then executed and passed by the Engineer-in-Charge. On account payments are also permissible under the conditions of piecework contract form, and work order Percentage Rate Tender/Item Rate Tender. The contractors should be required by the Engineer-in-Charge to submit their bills by a fixed date in accordance with the terms of the contract e.g. Percentage Rate Tender/Item Rate Tender and only in such cases, where a contractor fails to submit the bill by the prescribed date, the Engineer-in-Charge should depute a Subordinate authorized by him to measure up the work in the presence of the contractor and prepare a bill from such measurements. Running payments must be made monthly as per terms of the contract even though the amount involved is small, when for any reason, monthly payments cannot be made on the basis of recorded measurements, advance payments for alternate running bills be made to contractors after obtaining approval of DGM/JGM/GM. In this regard, if no payment is to be made, this fact should be recorded in the Measurement Book. The Engineer-in-Charge, should maintain a register to keep a record of then monthly running payments made to the contractors in respect of contracts costing above Rs. 1 lakh. The register should remain on the Engineer-in-Charge's table to enable him to which that payments are being made to the contractors every 30 days. If any objection is raised by the concerned Finance officer, for payment of a particular item or rate in any bill, the Engineer-in-Charge should make up his mind and pass final orders then and there whether the item on which objection has been raised should be allowed then the item should be retrenched from the bill but in no circumstances the payment should be delayed. The register should be posted at the time of making monthly running payment to the contractor.

### **37.2 Final Payments**

Final measurements should be recorded within one month of the completion of work. Final payments for works costing more than Rs. 5.00 lacs should be made within six months of the completion of work and for other works within three months.

### **37.3 Time Schedule for Payment of Bills**

**37.3.1** The following time schedule for payment of bills and issue of completion certificates has been prescribed below:



<u>Stage</u>	<u>Time Limit</u>
[1]	[2]
Payment of Running Bills	As far as possible before expiry of ten working days from the presentation of the bill, AME/ME and SM/SM(SG)E/Asstt. GME should not take more than 5 working days each.
Contractor's notice of Completion of works	10 days of completion of the works
Issue of completion certificates for works	30 days
Submission of final bills by the contractor	one month of the date final certificate of completion furnished by Engineer-in-Charge or three month of physical completion of the work which ever is earlier
Payment of final bills for works upto Rs. 5.00 lacs	3 Months of receipt of final bill from the contractor.
Payment of final bills for works over Rs. 5.00 lacs	6 Months of receipt of final bill from the contractor.

#### 37.4 **Inspection of Works by DGM/JGM**

37.4.1 Before a work is declared as completed in all respects and final payment is released to the contractor in respect of the following works, it has to be inspected by the SM/SM(SG)E/DGM/JGM.

Completion certificate may be issued by each authority upto the level of SM/SM(SG)E to the extent they are delegated powers for technical sanction. However, for all works costing more than the TS limit of SM/SM(SG)E completion certificate should be issued by DGM/JGM. Report of completion certificate should be submitted to the next higher authority within 30 days of issuing such certificate.

37.4.2 The JGM/DGM/ SM/SM(SG)E shall also record the following certificates:

“I have inspected the work of \_\_\_\_\_contract value of which is Rs.\_\_\_\_\_ Vide agreement No.\_\_\_\_today. As a result of this inspection and my previous inspections, I find that the work has been carried out generally to specifications, and has been completed satisfactorily. There are no noticeable defects except for the following:

37.4.3 The above certificate is required to be recorded within a period of 3 months from the date of completion of the work.

37.4.4 AME/ME have to record similar certificate in respect of the works within their delegated powers.

37.4.5 These defects should be rectified by the Contractor or by the Department at his cost, action for which should be taken in terms of the contract.

- 37.4.6 This certificate will be attached with the office copy of the Final bill of the contractor and remain on the record of the SM/SM(SG)E's office. The SM/SM(SG)E shall not make final payment till this certificate is recorded, and attached to the Office copy. This certificate, however, will in no way reduce the responsibility of the SM/SM(SG)E and the AM/Manager (Finance) for due check of the work and the bill as required by the rules and code of practice of the Department.
- 37.4.7 In order to keep record of inspections carried out by SM/SM(SG)E and DGM/JGM, GM and ED ENGG, inspection notes shall invariably be issued by them, so that both the officers on spot and the contractors are kept apprised of the nature and character of works and defects, if any.
- 37.4.8 The certificate is required to be recorded by the DGM/JGM in whose time the work is completed irrespective of the fact that a part of the work may have been done during the incumbency of his predecessor. The DGM/JGM recording the certificate is not responsible for bad work which may have been covered up during the incumbency of his predecessor, for instance, work in foundations or below the concrete flooring, but he is required to point out the defects which appear outwardly, for instance, defects in the doors and windows, plastering flooring, painting etc. He can also check up the composition of the mortar in the brickwork, plastering etc., by removing a portion of the plaster etc., and thus satisfy himself that the work has been done satisfactorily and according to the specifications. He can also refer to the inspection notes previously recorded by the officers of the Department and satisfy himself that the defects pointed out therein have been rectified by the contractor. In this way the DGM/JGM should have no difficulty in recording the certificate even if the entire work has not been done during his incumbency.
- 37.4.9 In specific cases, where there are practical difficulties due to various failures on the part of SM/SM(SG)E or DGM/JGM concerned in getting the completion certificate recorded by the DGM/JGM in whole time the work is treated as complete by the Engineer-in-Charge, ED Engg may decide any relaxation of the existing instructions, after examining the details of the case regarding procedure adopted for recording the completion certificate by the DGM/JGM, timely intimation given by SM/SM(SG)E to DGM/JGM or Senior Architect etc. and to decide whether the present incumbent, i.e. DGM/JGM should record the completion certificate in such cases and issues directions accordingly. Administrative action should also be initiated against the SM/SM(SG)E or DGM/JGM for not taking proper/timely action in getting the completion certificate recorded, whatever justified, as revealed by the facts of the case.
- 37.4.10 In order to avoid delays in recording of completion certificates by DGM/JGM, it has been decided that in the case of such work the SM/SM(SG)E should inform the DGM/JGM concerned of the work having been completed in all respects within a fortnight of the physical completion of the work and request them to carry out their inspection and record the required completion certificate.

**37.5 Payment through Bank**

37.5.1 Payment due to contractor, if so desired by him, be made to his bank instead of direct to him provided the contractor furnishes to the Engineer-in-Charge:

- (i) An authorisation in the form of a legally valid document such as a power of attorney conferring authority on the bank to receive payment.
- (ii) His own acceptance of the correctness of the accounts made out as being due to him by the AAI or his signature on the bill or other claim preferred against the AAI before settlement by the Engineer-in-Charge of the account or claim by payment to the Bank. While receipt given by such bank shall constitute full and sufficient discharge for the payment the contractor should, wherever possible, present his bill duly receipted and discharged through his bankers.

**37.6 Deduction of Income-Tax at Source (Work Contract Tax / Value Aided Tax)**

37.6.1 Before signing the first and final bill/the Running Account bill/or the final bill in the case of Running Account bill, the AME/ME/SM/SM(SG)E should see that the statutory deduction on account of income-tax wherever due, has been made from the bill of the contractors and VAT introduced from 1.4.2005 as applicable to the state. Under Section 194-C of Income Tax Act 1961, introduced by Finance Act 1972, deduction of Income Tax is required to made at source by disbursing officers from payments made to contractors. Finance Directorate shall ensure that current Income Tax Laws are followed at the time of disbursement.

## **SECTION – 38: PAYMENT FOR SUB-STANDARD WORK**

### **38.1 Procedure for Acceptance of Sub-Standard Work**

38.1.1 The Contractors are required to execute all works satisfactorily and according to the specifications. If certain items of work are below specifications the Contractor should be asked to redo them according to the specifications. During the progress of the work, defects/deficiencies in the items of works are to be noted in time, recorded in site order book. It will be the duty of the Field Staff viz. ME/AME/SA/SS/Jr.Exe. Engg. to point out such defects in the work in time during the progress of the work. These defects should also be brought to the notice of SM/SM(SG)E immediately, so that he may take timely action to issue notices to the Contractor either to rectify the defects or even get the work dismantled and redone if necessary. The contractor be given a letter in regard to rectification of defective work and removal of sub-standard material [**Appendix –63**]. Every attempt should be made to issue such notices regarding the defective items during the progress of the work. Where, however, this is not found feasible, the same should be issued within the prescribed maintenance period. Timely action alone can prevent occurrence of defects, which will be difficult or impossible to rectify later on like hollow vertical joints in brick masonry and similar defective structural members.

38.1.2 If the Contractor does not rectify the defect, the work should be got redone or rectified departmentally by employing skilled labourer at the Contractor's cost in terms of relevant clause of the Conditions of Contract Percentage Rate Tender, Item Rate Tender and Piecework and similar conditions in other forms. However, in case it is decided to accept this sub standard work, the SM/SM(SG)E/Asstt. GME should prepare reduction item statement with his proposal of reduced rates with rate analysis and send the same to DGM/JGME for approval of rates.

### **38.2 Sanction of Rates for Sub-Standard Work**

38.2.1 Acceptance of work below specifications and payment of reduced rates should be resorted to only for those items where it is structurally impossible to get the work done, with the approval of the competent authority. Full powers have been delegated to the DGM/JGM for acceptance of Sub-standard work and determination of rates thereof. Before a Sub-Standard work is accepted by the Department the Engineer-in-Charge after getting prior approval of competent authority should write a letter to the Contractor for and on behalf of the Chairman, AAI regarding acceptance of the same at the provisional rates pending the decision of the competent authority with regard to final rates [**Appendix –64**]. And in reply to this letter the Contractor should send his consent for acceptance of the terms specified by the Department [**Appendix – 65**]. For this purpose regarding the Quantum of reduction as well as justification thereof in respect of rates for sub-standard work which may be decided will be final.

38.2.2 In reduction in the rates together with a copy of the orders approving such reduction in the rates for acceptance of sub-standard work by the DGM/JGM should be sent to the SM/SM(SG)E so that they are made available to

Audit/(Accounts) during the inspection when found necessary. The AME/ME should invariably write down in the Measurement Book the element of the items of work remaining non-executed and the defects in the items of work for which part rate is allowed side by side when preparing running bills, the AME/ME should invariably write in Measurement Book the element of the items of work remaining non-executed and the specific defects in the items of works for which part rates are proposed by them alongwith abstract of the bill in Measurement Book. Part rate statement attached with Running Account Bill should also clearly indicate in red ink defects/deficiencies for the sub-standard work. Payment of part rate will be taken to mean that work done and accepted for part payment for the operations executed is according to specifications and without defects unless otherwise clearly stated. The SM/SM(SG)E should clearly show in red ink below the form as well as in the abstract entry in the Measurement Book that the reduced rates paid in running bill as part rates for work were only provisional so that the contractor may not come with a plea later on before the arbitrator, that a certain rate has already been paid for the work and hence agreed to by the SM/SM(SG)E-in-Charge. While making such part rates payments, care should be taken that the amount withheld is commensurate with the nature of defects. At the time of scrutiny of the running bills before payment the AM/Manager (Finance) will be responsible to ensure that proper reasons for payment as part rates are given in the abstract of cost entered in the measurement books and bills. He should also ensure that prior approval of DGM/JGM is available in respect of part rates for defective work and a proper notice to the Contractor is available on the record. It is also imperative that DGM/JGM examine the proposals for sanction of reduction in rates sent by the SM/SM(SG)E properly and ensure that formalities which are required to be followed for acceptance of sub-standard work have been followed before acceptance of the proposals. It is essential that the approval of the DGM/JGM should be obtained before the final bill for the work is paid.

38.2.3 Reduced rate item arises out of specific non-performance of the provisions of contract by the Contractor, which however has been condoned by the Department under certain circumstances. So the procedures and priorities mentioned under the agreement for working out the rates for substituted/extra items do not ipso facto apply in these cases. The deduction in rate should be commensurate with the defect and should be in a position to be defended in the arbitration court and should be worked out evaluating the deficiency in the item as compared to the full specifications mentioned in the agreement, based on principles of reasonableness and equity, always remembering, however, that such a defect has occurred due to specific non-performance of provisions of contract, on the part of the Contractor. These powers are outside the limits of power given for approval of substituted/extra item.

38.2.4 DGM/JGM should bear in mind these guidelines before they sanction reduced rate item statements for such sub-standard items of work which are accepted under special circumstances.

### 38.3 **Removal of Rejected/Sub-standard Material from the Site of Works**

38.3.1 The following uniform procedure should be followed for removal of rejected or sub-standard material from the site of work:

- (i) Whenever any material brought by the Contractor to the site of work is rejected, entry therefor should invariably be made in the Site Order Book under the signature of the AME/ME giving approximately the quantity of such materials.
- (ii) As soon as the material is removed, certificate to that effect may be recorded by the AME/ME against the original entry, giving the date of removal and mode of removable i.e. whether by truck, carts, or by manual labour. If removal is by truck, the Registration number of the Truck should be recorded.

### 38.4 **Substituting the make of the items of contract agreement**

Substituting the makes of the items of contract agreement also required reduced rate as applicable, field engineers ensure that the contractor shall be issued with a notice intimating that due to substitution of make reduced rate will be worked out by the department. Also before the make of the item is substituted an undertaking may be obtained from the contractor that for such substituted make reduced rates as prepared by the department is acceptable to them. It is also essential that the reduced rate shall be got approved by the competent authority as contained in this section.

## **SECTION 39: ADVANCE PAYMENT**

No advance payment to contractors / suppliers should be made except the following:-

### **39.1 Lump Sum Advance (Mobilisation Advance)**

39.1.1 NIT approving authority shall use their discretion carefully and may stipulate payment of mobilisation advance limited to 10% of the estimated cost put to tender against bank guarantee issued by Scheduled bank but not cooperative/ Gramin Bank. The value of contract should be above Rs. 50.00 lakhs.

39.1.2 All such advances should be against a Bank Guarantee in the form of prescribed **Appendix – 66**. The advance payment may be released in stages depending upon the progress of the work and mobilization of required equipments etc.

39.1.3 The recovery of such advance should be made in suitable installments commencing from 2<sup>nd</sup> running account bill or after 10% work is completed, whichever is earlier.

39.1.4 The entire amount of advance together with interest should be recovered before 80% of the work is completed.

39.1.5 Advance payment so made should be at simple interest @ 10% per annum or instruction issued from time to time by Competent Authority and stipulated in the contract.

39.1.6 Accrued interest should be recovered from running account bills of the contractor along with recovery of principal advance amount.

### **39.2 Secured Advance**

39.2.1 Secured advance upto an amount not exceeding 75% of the value of material brought at site for in-corporating in the work or 75% of the material cost in the tendered rate of the finished items of the work, whichever is lower, may be paid to the contractor under running account bill. A list of items categorised as “A” “B” and “C” separately for civil and electrical goods is attached as **Appendix -67** for the guidance of field officers. While secured advance for materials in category “B” may be paid only after indemnifying AAI through an insurance cover. No secured advance should, however, be granted for materials of perishable nature listed in category “C”.

39.2.2 All such advances should be made after formal agreement (Indenture Bond) is signed with the contractor under which the authority secures a lien on the materials.

39.2.3 Advance so granted should be recovered as soon as the material is consumed in the work and payment for the finished item is made to the contractor.



- 39.3 Advance payment for the work done but not measured:
- 39.3.1 Advance payment for work actually executed but not measured may be made in exceptional cases of real necessity to the extent given in DOP of assessed value of work.
- 39.3.2 Such advance payment should be authorised on the certification by an officer not below the rank of SM/SM(SG) and the officer personally held responsible for any over payment, which may occur on the work in consequence.
- 39.3.3 Advance payment whenever made should be followed by bill based on detailed measurement within three months and advance adjusted.
- 39.3.4 2<sup>nd</sup> advance before the 1<sup>st</sup> one has been recovered shall not be permitted under any circumstances.

Note: Procedure of maintaining bank guarantees at **Appendix-48**.



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## SECTION 40: DISPUTE RESOLUTION MECHANISM, ARBITRATION AND LITIGATION CASES

### 40.1 Dispute Resolution Mechanism:

- a) The dispute resolution method shall be specified clearly in the bidding/tender document. It may be through a Disputes Resolution Board.
- b) If a dispute of any kind, whatsoever, arises between the procuring entity and contractor in connection with or arising out of the contract or the execution of the works, whether during the execution of the works or after their completion and whether before or after the repudiation or termination of the contract, including any disagreement by either party with any action, in action, opinion, instruction, determination, certificate or valuation of the Engineer; the matter in dispute shall, in the first place, be referred to the Dispute Resolution Board.
- c) The Dispute Resolution Board should be as per following:
  - (i) For works upto Rs 5.00 crore –At Regional Headquarter (RHQ)
  - ii) For works above Rs 5.00 crore –At Corporate Head quarter (CHQ)Level
- d) No officer dealing with the concerned contract may be appointed as Member of Dispute Resolution Board.
- e) When the disputes could not be resolved through the Dispute Resolution Board, the Arbitration clause may be invoked.

### 40.2 Arbitration

- 40.2.1 All questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be referred to a sole arbitrator for adjudication through arbitration. The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act 1996 or any statutory modifications or re-enactment thereof and the rules made there under and for the time being in force, shall apply to the arbitration proceedings.
- 40.2.2 An officer not below the rank of General Manager Engg , drawn from the approved panel of Arbitrators may be appointed to act as arbitrator by an appointing authority. The appointing authority for an arbitrator should be clearly defined in the bidding document.
- 40.2.3 Application for Arbitration under relevant Clause of Standard Contract Format
- 40.2.3.1 Consequent on the enactment of Arbitration & Conciliation Act, 1996, all the matters which are referable to arbitrators, are to be governed under the new enactment and not under Indian Arbitration Act, 1940. The standard forms

provides for appointment of an Arbitrator in case of questions and disputes relating to certain matters, specified therein arising at any stage, whatever, between the parties. This, however, does not apply to action taken under relevant clauses where the decision of the specified officer is final to the extent already described therein.

40.2.3.2 The Contractor cannot have recourse to a court of law for the redress of his grievances, unless he has exhausted the channel of arbitration as envisaged in relevant arbitration clause. Even if the contractor goes to court, the Division Officer should take a plea that the contractor being a signatory to the agreement containing arbitration clause, any dispute arising out of or in any way connected with the execution of work is first to be settled by reference to arbitration.

#### 40.2.4 Invocation of Arbitration Clause:

40.2.4.1 Arbitration Clause can be invoked by either party for adjudication of disputes arising out of the contract. Contractor seeking arbitration should apply in a format prescribed in **Annexure 4**.

40.2.4.2 Application for appointment of arbitrator under Arbitration Clause should be submitted by the contractor to the appointing authority with two copies thereof to be sent to SM/SM(SG)E. The application form should be accompanied by the Statement of Claims as indicated in the application form.

#### 40.2.5 Preparation of Arbitration Cases

40.2.5.1 The following steps should be taken by the SM/SM(SG)E with a view to properly handle / defend the arbitration cases: -

- (i) Consequent on application made by any party for referring the disputes to arbitrator, the concerned SM/SM(SG)E should prepare a detailed history sheet containing the data regarding estimates, designs and drawings, NITs agreements, extra and substituted items, reduction statements, extension of time / notices issued under clauses of agreement and send a copy to his DGM / JGM/GM.
- (ii) List out important letters in respect of the issues raised by the contractor or the important notices issued to the contractor and place these originals in a separate file. In the routine file, true copies of these documents may be placed.
- (iii) Keep original agreements, plans, designs including the calculations for these, if available, details of measurements and analysis of rates attached to the technically sanctioned, estimates, all the MBs connected with the work, site order book, cement register in safe custody of the Division Officer along with original listed in para (ii).
- (iv) The measurement books should be closed.

- (v) All the files connected with the work should be properly page-numbered stitched and sealed and kept by the SM/SM(SG) / Asstt. GM Engg alongwith the above record.
- (vi) If there are important situations or circumstances, which are not available on the file, but are only known to the Executive Staff, their signed statements regarding the factual information should be obtained and kept on records, as after a lapse of time, they may not be available for personal discussions or they may be unable to recall past events.
- (vii) The SM/SM(SG)E may call the Executive Staff-in-Charge of the work from their new stations for any information that he may need to collect by personal discussions, but only under orders from the DGM / JGM concerned.

40.2.5.2 The final bill should be prepared as early as possible in any case before the disputes are referred to arbitration. The JGM / DGM / SM/SM(SG)E should ensure that the bills are finalized immediately, if not already done.

40.2.5.3 A detailed note on the facts of the case dealing with each and every item of the claims and/ or counter claims should be prepared by the SM/SM(SG)E along with reference to various relevant documents supporting the AAI case or negotiating the Contractor's claim.

#### 40.2.6 Processing of Contractors Applications

40.2.6.1 The SM/SM(SG)/Asstt. GM Engg shall send one copy of the application of contractor direct to the ED (Engg) / appointing authority with the under noted information without waiting for a reference from the ED (Engg) / appointing authority and within 15 days from the date of receipt of Contractor's application in his office with a copy to DGM/JGM/GM. DGM/JGM/ GM should send his report to ED (Engg) / appointing authority immediately.

- (a) An attested copy of relevant arbitration clause.
- (b) A note regarding verification of the factual data furnished by the Contractor in the application form.
- (c) Brief comments on each claim of the Contractor. While giving such comments, the admissibility of the claims in the light of arbitration clause and limitation act, will be kept in view and commented upon.
- (d) Statement of counter claims of the Department, if any. However, if counter claims are not readily enlisted or available, comments on contractor's claims should not be delayed.

#### 40.2.7 Appointment of Arbitrator

40.2.7.1 Arbitrator should be appointed from the list approved by the Chairman or by his specific approval.

40.2.7.2 On receipt of the copy of the application from the contractor for appointment of an Arbitrator, the SM/SM(SG)E / DGM / JGM/GM should examine the facts of the case and also whether the points of dispute fall within the purview of relevant clause of agreement. The DGM / JGM/GM should send his report to the ED (Engg), Member (P) for his final orders. The ED (Engg), Member (Plg) then shall appoint an Arbitrator under relevant clause of agreement. In the absence of ED (Engg), Administrative Head of the Department i.e. Member (Planning) shall appoint an Arbitrator in such a case.

40.2.7.3 The approved form of appointment letter be used to appoint an arbitrator.

40.2.7.4 In those cases where the amount of the claim is less than Rs.1,00,000/- (Rupees One Lakh) para of the standard form should be deleted (para states that the Arbitrator shall give reasons for the award if the amount of claims in dispute is Rs.1,00,000/- or above).

40.2.7.5 A supplementary agreement may be drawn to refer the matter of disputes to arbitration as per the provisions of the work order.

40.2.7.6 The persons thus appointed should be the sole Arbitrator and his award should be final and binding on all parties to the Contract, unless it is set aside by the Court.

40.2.7.7 Whenever a request for appointment of an arbitrator is received from a contractor in terms of agreement, the ED (Engg) should process the cases so as to appoint an arbitrator within 30 days from the receipt of such a request. The ED (Engg) should obtain report of the SM/SM(SG)/Asst. GM Engg/DGM/JGM/GM if the GM/ JGM /DGM/SM/SM(SG)E delay their reports, ED (Engg) would take appropriate action. It must, however, be ensured that time limit of 30 days for appointment of arbitrator is strictly adhered to.

#### 40.2.8 Appointment of Arbitrator without Agreement

40.2.8.1 In cases, where no agreement exists or where no clause exists in an agreement for referring the matter of dispute to the sole arbitrator of a person to be appointed by the ED (Engg) / Member (Plg), the disputes should not be referred to arbitration by mutual consent and no agreement should be drawn up for this purpose without obtaining the prior approval of the Chairman, AAI.

40.2.8.2 This authority of an appointed arbitrator does not become revocable except with the order of the court. It shall not be revocable by the death of any party or parties to the contract.

40.2.8.3 If the arbitrator to whom the matter is originally referred for arbitration withdraws himself or vacates his office due to transfer, retirement, death or due to any other

valid reasons, another arbitrator may be appointed to proceed with the case from the stage at which it was felt by his predecessor.

Once a dispute is referred to Arbitration and an arbitrator is appointed in terms of the arbitration clause, the arbitration can never end in anything other than an award. So, the cases, not specifically resigned by the arbitrators would be treatable as pending. In cases, where the arbitrator vacates his office by resigning or by death, the ED (Engg) would be able to appoint a fresh arbitrator.

#### 40.2.9 Action Subsequent to Appointment of Arbitrator

40.2.9.1 When the Arbitrator enters into reference and issue notices to the parties the SM/SM(SG)E should take prompt action to prepare the statement of facts or the counter statement of facts including the counter claims if any and arrange for its submission to the DGM/JGM/ GM and the law Dept and get their approval before sending to the arbitrator by the due date and time specified by him.

40.2.9.2 SM/SM(SG)E should deal the arbitration with utmost urgency and priority and arrange its submission with the approval of concerned DGM/JGM/GM and Dept of Law to the arbitrator within the date and time specified by him. Assistance of Law Department/ Legal counsel should be taken at every stage.

40.2.9.3 This time limit should invariably be followed by the SM/SM(SG)E. However, in cases where they foresee some unavoidable delay in adhering to the time limit they should explain the position to the Arbitrator and obtain extension of time before the expiry of the stipulated date.

#### 40.2.10 Engagement of Lawyers

40.2.10.1 Where some intricacies of law are involved and service of an advocate is desirable to conduct the case on behalf of the Authority, the SM/SM(SG)E should make up a request to Law Deptt. for engaging an advocate. Law Dept shall obtain necessary approval for engagement of legal counsel from the authority competent as per D.O.P. The professional fee of such advocate and the other terms and conditions will be settled by the Law Department as per their schedule of fees.

40.2.10.2 Where the fee is in excess of the scheduled rate of fee, the Law Department will obtain the approval of the Competent Authority.

40.2.10.3 In the case of Officers at stations where Law Manager / Sr. Law Manager is also stationed, the SM/SM(SG)E should take their assistance for conducting the Arbitration and no advocate should be engaged unless it is recommended by the Law Department.

40.2.10.4 The adjournments in the arbitration proceedings should always be avoided and should be taken only in the extreme circumstances under which it becomes necessary.

40.2.10.5 In all cases, where the value of the claim is Rs.10 Lacs or more, the SM/SM(SG)E concerned should defend the case invariably in consultation with the Law

Department and officers from Law Department shall also be approached to attend the Arbitration proceedings whenever necessary.

#### 40.2.11 Processing of Award

40.2.11.1 If in the award anything found incorrect and requires corrections and / or clarification within 30 days from the receipt of the arbitral award, claimant / respondent with a notice to other party may request the arbitral tribunal to correct any computation, clerical errors or any other error occurring in the award. SM/SM(SG)E should immediately giving notice to the other party may request to the arbitral tribunal for such correction. Arbitration award exceeding Rs.50,000/- in value should be referred to the Department of Law and Department of Finance. In such cases and also in cases mentioned above, a self contained reference together with a copy of the agreement, a copy each of the statement and counter statement of facts, a copy of the award, financial statement and comments of the AAI on the award, a copy of the views of the counsel or Law Officer, AAI and copies of the proceedings of Arbitration hearings, should be forwarded to the Hqrs. for examination of the case.

40.2.11.2 Where required the Departmental Counsel would assist in preparation of the counter statement of facts on the basis of the notes matter to be made available to him by the Senior Manager/ DGM /JGM/GM [Engg.].

40.2.11.3 An application for setting aside of the award cannot be made after three months from the date of receiving the arbitral award or if a request had been made under Section 33 for corrections of errors, from the date on which that request had been disposed of by the arbitral tribunal. SM/SM(SG)E may, therefore, should take immediate action on the advice of the Law Department and as well as the ED (Engg), Hqrs for taking necessary steps to file application for setting aside the award.

40.2.11.3 When the time for making an application to set aside the arbitral award under Section 34 has expired, the award should be enforced in the same manner as if it is a decree of the court. SM/SM(SG)E, therefore, should take precautions in challenging the arbitration award on the specific grounds as stipulated in the Arbitration award on the specific grounds as stipulated in the Arbitration and Conciliation Act, 1996.

#### 40.2.12. Payment of Award Money

40.2.12.1 If the award is accepted by the ED (Engg) / Member (Planning), in that event, the payment should be made in accordance with the award. Otherwise, if the arbitration award is challenged, payment can only be made as and when the award become rule of the court. Under the present Arbitration & Conciliation Act, if the award has not been challenged by either party on receipt of the award within three months from the date of the receipt of the arbitral award, the award will become a decree of the court. Thus, the award amount is payable and payment can be made accordingly.

Where it is considered by the ED (Engg) that the award should not be accepted, the Law Officer should be consulted for their advice and the case should be decided on the basis of their advice. If the ED (Engg) considers it inadvisable to act according to the advice of the Law Officer, the matter should be referred to the Chairman for decision.

40.2.12.2 The cases of arbitration awards exceeding Rs.5.00 Lacs should be referred to the Member (Planning). In such cases, a summary of the case, a copy of the agreement for the work, the facts deposed before the Arbitrator by the parties alongwith the recommendations of the Member (Planning) / ED (Engg) and opinion of the Law Department should be forwarded to them for full appreciation of the case.

40.2.12.3 All proposals for setting aside the arbitral tribunal, irrespective of the value of award should be referred to the ED (Engg) for final decision.

#### 40.2.13 Issue of Limitation

40.2.13.1 While examining the request for arbitration from a contractor or supplier or any claim in a litigation case, the Division Officer should examine whether the claim of the contractor is time barred in accordance with the provisions of the limitation Act, 1963 as the case may be. This point should be taken into consideration in preparing the defence.

40.2.13.2 The question as to whether any dispute had become time barred will itself be a dispute, which can only be settled by Arbitration. The stage of reference is not concerned with the question whether the claim of a party to the arbitration agreement is barred by the Law of Limitation and that question falls within the jurisdiction of the arbitrator to whom the dispute is referred. The reference of the disputes, even though seemingly time barred, would be free to agitate the question of time bar before the arbitrator, who would no doubt consider this point and give his award. However, it can be clarified in the letter of appointment of the arbitrator that the reference is without prejudice to the defence that may be raised by the AAI regarding the tenability of the claim on all necessary and available grounds including those in limitation.

#### 40.3 **Court Cases**

40.3.1 When the matter is referred to the court, SM/SM(SG)E should maintain constant liaison with lawyer and the Law Manager of the concerned unit. For avoiding unnecessary litigation cost, the defence strategy of any case should be taken on priority in consultation with the Department of Law.

40.3.2 Although it is the primary responsibility of the Departmental Counsel or AAI Counsel at the particular station where the case has jurisdiction to see to the proper defence of the case, it is equally the responsibility of Superior Officer of the department to keep constant watch over the progress of these cases and see that all such cases, at every stage, are processed properly so that the cases do not go

against the AAI interests by default resulting in financial loss etc. to the Government.

40.3.3 The DGM /JGM/GM should, therefore, see that all such cases are reported to the ED (Engg), as soon as a suit against AAI is threatened by any aggrieved party or the Department itself intends to file a suit against a contractor or their party. The first report from the DGM/JGM/ GM about such cases should give a brief description of the case and the steps which are being taken or have been taken for the proper defence or prosecution of the suit. Therefore, fortnightly reports on each such case should be sent to the ED (Engg) detailing the progress of the case and further action taken or to be taken for its defence or its successful persuasion.

40.3.4 To enable him to discharge properly the responsibility that has been placed upon him in the matter of defence of court cases, the DGM/JGM/GM should observe the following instructions:-

- (a) The SM/SM(SG) of the Division concerned will be primarily responsible for handling and defending the court cases. He will collect all the relevant records and compile it for the benefit of the counsel.
- (b) The DGM//JGM/GM should also give adequate and timely instructions to the SM/SM(SG) to ensure that the case is defended properly and handled expeditiously.
- (c) If it is considered necessary to obtain the advice of higher authorities at any stage, the DGM / AGM should refer the matter immediately to the ED (Engg) concerned for advice either personal or in writing, according to the needs of the occasion.
- (d) In order that DGM/JGM/GM keeps himself fully conversant with the progress of each case, he should obtain regular reports from the SM/SM(SG) about the progress of the case from time to time. He will send monthly reports to the ED (Engg). All defence statements to be filed by the SM/SM(SG) should be approved by the DGM/JGM/GM and the Counsel before the statement is filed.

40.3.5 In all court cases concerning this department, which the SM/SM (SG) have to defend with the assistance of AAI Advocates / Counsels, the SM/SM (SG) E concerned should intimate the complete postal address and telephone numbers (both office and residence) to the Advocates / Counsels so that any information / developments relating to the case is intimated to them straight away without referring the matter through any other higher ranking officer.

#### 40.3.6 Judgement in Court Cases

40.3.6.1 The progress of the cases in the court should be watched by the SM/SM(SG), who is in-charge of the cases as well as by the Office of the ED (Engg) concerned on the basis of the monthly reports. It should be the responsibility of the SM/SM(SG) to send a report to the ED (Engg) direct within 48 hours after the court has



delivered a judgment, which is adverse to the AAI with copies to the DGM / AGM and the Member (Planning) for information.

- 40.3.6.2 It shall also be his responsibility to apply for and furnish with the minimum delay a copy / certified copy of the judgment and all other relevant papers, his own comments and the opinion of the counsel conducting the case on the advisability of filing an appeal / revision petition to enable the AAI to come to a decision whether an appeal / revision should be filed or not. There should be no delay in communication between the SM/SM(SG)E and the local counsel and personal contact by telephone etc. should be maintained with him.
- 40.3.6.3 On receipt of the relevant papers from the SM/SM(SG)E, the DGM/JGM/GM should send his own comments to the ED (Engg). The ED (Engg) should examine the matter on receipt of the Divisional Officer's report and should consider the advisability of the filing an appeal / revision petition in the light of the comments of the DGM/JGM/GM. Thereafter, the ED (Engg) should forward his proposals to the Member and the Department of Law.
- 40.3.6.4 The proposal should be made in advance of the last date of filing an appeal and it should be complete in every respect i.e. copy of the judgment (if such copy has not been received, a verbatim report of the same) and all other relevant papers should accompany the proposal.
- 40.3.6.5 It is essential that there should be coordination between the different sections of the AAI and ED (Engg)'s office in such matters i.e. the section concerned should communicate to the other sections wherever any important decision of general interest is taken on a contractor's claim.
- 40.3.6.6 In all cases where the Officers of the Department are required to give instructions to the AAI pleaders in connection with court cases, they should give complete written instructions in regard to each case. The SM/SM(SG)E and DGM/JGM/GM should also see that there is no avoidable delay in the issue of the instructions to the AAI pleader. In any case, the instruction must be communicated at least a day before the date of hearing.
- 40.3.7 Legal issues on Civil Suits - General
- 40.3.7.1 In order to enable the SM/SM(SG)E/Asstt. GM to put up proper defence of the case, it is necessary that as and when they hands over charge of the office/ transferring arbitration cases / works, they should bring out all the facts and arguments are already explained in the written counter statements of facts, prepare and place on record a self-contained note giving all the facts of the case and detailed comments of the claims.
- 40.3.7.2 In order to enable speedy disposal of cases, the SM/SM(SG)E should not ask for adjournment to the extent possible.
- 40.3.7.3 The SM/SM(SG)E/Asstt. GM should always maintain a separate file so far as the disputes that have cropped up on the work during the progress of the work. In case

of his transfer or relinquishing charge due to any other reason, he should leave a self contained note on the file, at the time of his handing over charge, giving full background of all the disputes that have cropped up to the time of his incumbency, various developments thereon and the order passed with due reference to the connected lines. This should form a necessary and essential feature of all the handing over notes. Suitable method and procedure should be devised in the Divisional Office by which such files are carefully preserved and become available at a later stage to the Division Officer, who is required to defend the case.

- 40.3.7.4 The transferred SM/SM(SG)E/Asstt. GM should make a comprehensive note about the pending claims of all the contractors for works in progress or completed in their time except those where counter statement of facts have already been prepared. The note should indicate the admissibility or otherwise of each claim, the reasons for turning down the claim and the orders of competent authority. The note along with attested true copies of important letters mentioned therein should be handed over to their successor / other division.
- 40.3.7.5 It should be made a rule in the SM/SM(SG)E/Asstt. GM Office that all drawings issued with the NIT and those subsequently followed for execution of works are properly preserved and kept along with the contract documents. It should be ensured by the SM/SM(SG)E/Asstt. GM that suitable and adequate arrangements are made in his division regarding preservation of all important documents, registers etc. Besides others, a list of all such records should be prepared and kept handy so that correct position of each case may be known to the SM/SM(SG)E/Asstt. GM, who is required to conduct the case to enable him to do so on proper lines.
- 40.3.7.6 The arbitration cases should not be considered as a legacy of old and defunct decisions handed over to subsequent SM/SM(SG)E/Asstt. GM. These should, on the other hand, be given due importance and dealt with on priority basis at all stages, till these are finally disposed of.
- 40.3.7.7 One of the important documents for defence in an arbitration case is the agreement. It is essential that a copy of the DGM/JGM/GM's orders conveying his decision on recovery of compensation and copies of sanctioned extra substituted and deviated items, details of sanctions to extension of time etc. should be attached to the original agreement so that these are readily available during the hearings of the arbitration case. It would be better, if these papers are got signed by the contractor as far as possible so that any claim on these issues can be refuted before the Arbitrator.
- 40.3.7.8 Before a dispute is put to arbitration, the department should know its exact position with regard to each item of the claims under dispute. It is very necessary that a very close and thorough study of the relevant documents is made and the case prepared accordingly.
- 40.3.7.9 SM/SM(SG)E will send a quarterly statement (ending March, June, September and December) of pending arbitration cases in the Performa at **Annexure 5** on 7<sup>th</sup> April, 7<sup>th</sup> July, 7<sup>th</sup> October and 7<sup>th</sup> January every year to the DGM/AGM, who



should send a similar statement for the concerned ED (Engg) on 15<sup>th</sup> April, 15<sup>th</sup> July, 15<sup>th</sup> October and 15<sup>th</sup> January every year. These reports should be reviewed by the ED (Engg). At periodical meetings with their DGM/JGM/GM/SM/SM(SG)E to expedite the finalization of arbitration cases.

40.3.7.10 All correspondence between SM/SM(SG)E and his DGM/JGM/GM/ED (Engg) regarding appointment of arbitrator or on award and subsequent court cases if any should be through D.O. letter and should be sent through special messengers in the same station.

#### 40.4 **Jurisdiction of Courts**

40.4.1 The courts of the place from where the tender acceptance letter has been issued shall have the jurisdiction to decide any dispute arising out of or in respect of the contract.

**ANNEXURE – 4****(Reference Section 40)****APPLICATION FOR APPOINTMENT OF ARBITRATOR**

To

The ..... (Designation as per Arbitration Clause)

**Verification by SM/SM(SG)E**

1. Name of applicant :
2. Whether applicant is individual / Prop. Firm / Partnership Firm / Ltd. Co. :
3. Full address of the applicant :
3. Name of the work and contract number in which arbitration sought :
4. Name of the Division which SM/SM(SG)E entered into Contract :
6. Contracted amount in the work :
7. Date of Contract :
8. Date of initiation of work :
9. Stipulated date of completion of work :
10. Actual date of completion of work :
11. Total number of claims made :
12. Total amount claimed :
13. Date of intimation of final bill :
14. Date of payment of final bill :
15. Amount of final bill :
16. Specimen signature of the applicant (only the person / authority who signed the contract should sign) :

I / We certify that the information given above is true to the best of our knowledge. I / We enclose following documents:-

1. Statement of claims with amount claims.
- 2.
- 3.
- 4.

(Signature)

Copy to:-

1. The SM/SM(SG)/Asstt. GM Engg

.....  
.....

**ANNEXURE-5**

[Reference Section 40]

Name of Project Office

Name of Airport [Zone]

Quarterly Statement showing position of pending arbitration cases, [number only] for the quarter ending -----

**PART-1**

	As at the ends of previous quarters	Added during the quarter	Cleared during the quarter	Total	Balance
[A] Requests made appointments not made					
[B] Appointments made, SF received but CSF not set					
[C] Award received but payment not made					

**PART-II**

**Details of cases pending with arbitrators for more than 12 months**

Case No.	Name of Arbitrator	Name of work & contractor	Appointed on	Remarks why pending



**Annexure -6**

(Reference Section 40)

To

.....

.....

Sub:- Award dated ..... made by Shri ..... Arbitrator in regard to the  
disputes arising out of agreement no..... and referred to arbitration in arbitration  
case no... ..

Dear Sir,

With reference to the award mentioned above, I am to say that the Chairman, AAI has decided to accept the said award provided your accept the same as a final and binding. Please intimate that you agree to accept payment of the sum awarded in full and final settlement of all your claims forming the subject matter of the reference to arbitration in the above cases.

Yours faithfully,

SM/SM(SG) (Engg)  
or and on behalf of the Chairman, AAI.

## **SECTION-41: ACQUISITION OF STORES**

### **41.1 Classification of Stores**

The Stores of the AAI are divided into the following classes

- (i) Stock of general stores
- (ii) Tools and Plant
- (iii) Road metal; and
- (iv) Material charged direct to works

#### **41.1.1 Tools and Plant of an office are further divided into following kinds :**

- (a) General or ordinary tools and plant i.e. those required for the general use of the Division.
- (b) Special tools and plant i.e. those required not for general use, but for a specific work.

**41.1.2** The cost of the supply, repairs and carriage of articles of class (a) above is charged to the Minor Head “Tools and Plant” cost is charges in the accounts against sanctioned estimates in the same way as expenditure on works, though for the purposes of sanction, it is treated as expenditure on Tools and Plant.

### **41.2 Reserved Stock/Stores**

**41.2.1** Ordinarily, the materials should be purchased only for the works in progress and no reserve stock should be kept except with the specific sanction of and upto a monetary limit to be prescribed by the competent authority. Due consideration of the anticipated requirements of the stores according to the nature and quantum of work to be executed in each Division during a year should be taken and estimate prepared on the basis of these figures.

**41.2.2** In order to facilitate control over the purchases of stores for works in the Division, particularly Maintenance Divisions, all estimates for a year should be sanctioned well in advance of commencement of that year. A statement of materials required for the work in each Sub-Division should be attached to each estimate. To facilitate consolidation, the material should be grouped in a pre-determined order in each statement. Before the commencement of the year, requirements of materials of all work in a Sub-Division and the Division should be consolidated.

**41.2.3** The manufacture or collection of materials involving an outlay of Rs.25,000/- or upwards must, in all cases, be covered by an estimate showing proposed outlay and the materials to be received.

**41.2.4** If the materials required for a work duly sanctioned or for reserve stock within the sanctioned limit for the Division, the estimate will merely require the approval of the DGM/JGM for purchase exceeding Rs.5.00 lac. In other cases it would require administrative approval, expenditure sanction and technical sanction of the competent authority as though for an original work.

- 41.2.5 The delegated officers, as per delegation of powers are authorised to sanction for procurement of construction material for keeping in reserve stock.
- 41.2.6 When a reserve stock limit has been sanctioned, the SM/SM(SG)E/Asstt. GM is authorised, subject to the approval of proper estimate thereof to purchase or manufacture stock within the sanctioned limit, it should be ensured that the materials are purchased strictly in accordance with the requirements of the work and utilised to the best advantage of AAI. The purchase or indenting in excess of the requirements should be avoided.
- 41.2.7 In case certain materials are rendered surplus to requirements as a result of certain deviations, alterations, substitutions or reductions in the quality of items during the course of execution of work or where some materials become surplus on completion of work, because it was purchased as a precautionary measure for avoiding any possible delay in procurement, or where some provisions have to be made for any other contingencies arising during execution of work or where the outlay has been prohibited for any considerable length of time, the SM/SM(SG)E/Asstt. GM should take action to transfer such likely be used within a reasonable time, or bring such provided that they are serviceable. Where the materials, rendered surplus cannot be utilised in any of the manners indicated above the SM/SM(SG)E/Asstt. GM should take necessary steps to dispose of the materials by sale.
- 41.3 **Road Metal**
- 41.3.1 The stock of road metal is maintained mostly in the offices which are in-charge of maintenance of roads. Same requirements, as in case of stores, as referred to above, are to be fulfilled in respect of acquisition of stock of road metal.
- 41.4 **Tools and Plant**
- 41.4.1 Ordinary tools and plant required for the general use of the offices can be purchased or manufactured against sanctioned estimates with the exception of purchases or manufactures not exceeding Rs.1, 00,000/- for which estimates are not required. The powers of Officers to sanctioned estimated for purchase, manufacture and repairs of Tools and Plant are, subject to the instructions hereunder, the same as their power to sanction estimates technically under para 2.7. Before sanctioning the estimate for Tools and Plant it should be ensured that necessary budget allotment exists under the minor head "Tools and Plant".
- 41.4.2 Purchase of Motor Cars, Trucks, Jeeps and other plant and machinery will be regulated by special orders of the AAI.
- 41.5 **Special Tools and Plants.**
- 41.5.1 Cost of special tools and plant needed for specific work would be included in the estimate for the work concerned.



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## SECTION-42: INSURANCE

### 42.1 **General**

42.1.1 The AAI's property, both movable and immovable should normally be insured. While the responsibility of insuring immovable property rests with the Commercial Department, the approval for insuring movable property should be obtained from ED Engg / Member (P).

42.1.2 The Member (P) has full powers in the case of insurance of movable property. The ED Engg is, however, empowered to incur expenditure of the insurance of materials and equipments received on loan or as aid from foreign Govt. or international or other Organisations if, according to terms of the contract or agreement, insurance of such materials or equipments is necessary.

### 42.2 **Inland Transit insurance**

42.2.1 In cases of consignment of stores in general, dispatched on F.O.R. station of despatch basis and in the case of fragile stores in particular, where the suppliers do not accept transit insurance clause and the stores cannot be booked by the Railway under a clear Railway receipt at Railway risk, and if the indenter/ consignee wants the stores to be insured he will make necessary provision in the contract by means of an amendment, if the acceptance of tender has already been issued.

42.2.2 In such cases of FOR Station of despatch contract, where the supplier have not accepted the standard clause of transit insurance, the consignee will be responsible to: -

- (a) Lodge claims for loss or damage to stores in transit with the carrier Railways and directly pursue the claims with carriers.
- (b) Inform the Insurance Company about the loss or damage.
- (c) To report the cases of dispute to the purchase office for either pursuing the matter with the Railways/Higher authority or for suggesting write off; and
- (d) Write off the amounts that could not be recovered either from the supplier or the carrier Railway in accordance with the procedure laid down in the departmental regulations.

42.2.3 In the case of FOR Station of despatch and for destination contracts, where the suppliers accept a standard transit insurance clause, the consignee will merely file the claims with the carriers and report the fact to the suppliers. Thereafter it will be the responsibility of the suppliers to pursue the claims with the Railways and settle the matter.

42.2.4 The inland transit insurance, whenever required by the indentors/consignees should invariably be arranged with a Nationalised Insurance Corporation/Company of India in preference to the Railways.

- 42.2.5 In case of loss or damage to stores in transit where the stores have been insured by the supplier against such risks, he will take up the matter with the insurer and recover the loss from them. The indenter will be responsible for payment of stores actually received by the consignee.
- 42.2.6 Where the suppliers arrange transit insurance, they should notify the consignee in writing when forwarding the despatch documents, such as. Inspection notes, Railway receipt etc. about the limit within which the claims for shortage/damages in transit should be filed to enable the consignee to do so within such period. It is the responsibility of the indenter/consignee to prefer the claims within the specified period wherever suppliers notify them transit insurance cover will be valid only upto a particular period failing which their claims are likely to be ignored.
- 42.3 **Insurance of Imported Stores in Transit**
- 42.3.1 The responsibility for arranging insurance of imported stores is that of the indentors who are expected to take out individual policy with approved insurance agencies. Details of the policy and this fact whether or not insurance is required, should be indicated by the indentors in their indents/contracts.
- 42.3.2 In case, the indentors fail to give definite instructions about insurance in their indent, it would be presumed by the purchase officer that no insurance is required and the contract will be placed by him without any provision for insurance. The importers are required to take out either specific policies with the approved insurance agencies or make their own arrangements for open cover policies in their own arrangements for open cover policies in their individual names based on the yearly imports, direct with approved insurance agencies. It is very necessary that this is done, as otherwise merely forwarding copies of invoices of Bills of lading by the Missions/importers/freight forwarders does not mean that the insurance Company is on risk.



## **SECTION 43: LOSSES OR DAMAGES OF/TO STORES**

### **43.1 Booking of Stores**

43.1.1 As already stated definite and clear instructions are required to be given in the indent/order with regard to mode of despatch and consignee's address, which are very necessary for correct intact delivery of the stores. To avoid losses and damages to stores in transit, the following information should be as detailed as possible as not to leave any loophole for any dispute or misinterpretation at a later stage: -

- (i) Consignee's Postal & Telegraphic address.
- (ii) Station of despatch (Railway region should be clearly indicated).
- (iii) Whether to be booked by goods train, passenger train, quick transport service of Railway.
- (iv) Whether to be booked at Owner's risk or Rail risk.
- (v) Whether it should be covered by transit risk insurance.

43.1.2 Where for booking of goods, by rail or road an enhanced risk rate is provided, additional charges above those prescribed for the booking of goods at owner's risk rate being in the nature of insurance charges, such additional expenditure for booking goods at Railway risk should be incurred as per power delegated.

43.1.3 In cases, where there is only one set of rates for carriage of goods by rail and there are no alternative owner's risk rates, such charges are treated as freight charges. Air lifting of stores should be resorted to only in rare cases of extreme urgency in consultation with the internal financial advisers.

### **43.2 Taking Delivery of Consignment**

43.2.1 The consignee is responsible for verifying at the time of taking delivery from the railway authorities that the stores have been received intact without loss or damages. When stores are despatched in full wagonloads, consignees should verify that the seals of the wagon are intact. If the seals are found tampered with or broken, delivery should be taken in presence of responsible railway official. If there is evidence of loss or damages, necessary certificates to that effect should be obtained from the appropriate railway official before taking delivery. The loss or damage should in every case, be promptly reported to the suppliers (Contractor, purchase officer, who place the order, as well as to the pay and AM/Manager (Finance), responsible for payment for stores), as otherwise the consignee will be deemed to have accepted the stores. In any event, the consignee should not before checking and verifying the stores give a receipt certificate to the supplier. Railway receipts for consignment of materials should be endorsed in favour of the stores keeper or Sr. Supdt. or any other responsible officer of the department who should personally take delivery of Govt. Stores and hand them over to the carriage

contractor. Whenever the carriage contractors are required to handle large quantities of stores adequate security that invariably be taken from them.

43.2.2 Where due to any practical difficulties it is not possible to deploy any departmental officer for keeping a watch on the arrival of consignment and to take delivery thereof after completing formalities and it is intended to endorse the railway receipts in the name of the carriage contractor, a condition for obtaining an additional security in the shape of bank guarantee should be stipulated in the tenders for carriage of materials. The amount of the security in the shape of bank guarantee should be 10% (ten percent) of contract amount and this will be in addition to the normal cash security deposit recoverable from the contractor's bill as per usual terms of agreement. This condition will apply to all annual carriage contracts and can also be applied even for such contracts which may extend over a long period but less than a year.

43.2.3 While endorsing the railway receipts in favour of cartage contractors in such contracts where requisite bank guarantee has been received, the under noted form of endorsement may be adopted and the consignee should suffix his dated signature over his stamp showing designation etc.

Please hand over the material to Shri.....  
Whose signature is attested below

### 43.3 **Losses/Damages in Transit**

43.3.1 Whenever the losses or damages occur in transit, the responsibility for the same varies according to the circumstances of each case and the terms of contract. In the case of contracts, stipulating delivery F.O.R. station of destination, the contractor is liable for any loss or damage that may occur in transit and to make good the same by replacement free of charge at destination or accept deduction from his bill for the quantity lost or damaged in transit.

43.3.2 In the case of contracts stipulating delivery F.O.R. station of despatch if the suppliers have agreed to the indenter's conditions that they will be responsible until the stores contracted for are received in good condition at the destination, the responsibility rests with them as in para 43.7 above.

43.3.3 In cases, however, where the supplier do not agree to take responsibility for loss or damage in transit, the goods pass to the name of the consignee as soon as the same are accepted by the Railway Administration for carriage, the railway acting as a bailee. Thereafter, the supplier is ordinarily not responsible for any loss or damage to goods that may occur en route, if he has been able to book the goods in a railway condition under a clear receipt without any advance remarks as to the condition of the goods or the packing.

43.3.4 In cases, where goods are despatched under a "Said to contain" receipt, the supplier should not be absolved of his responsibility for loss in transit, unless he is able to prove beyond doubt that he was not responsible. Each case should, therefore, be examined on its merits and decision taken at the appropriate level in



consultation with finance. The consignee should incorporate a certificate on the receipt certificate in the inspection certificate or firms invoice on the following lines:

“Consignment/s was/were despatched under clear/said to contain Railway Receipts at Railway/Owner’s risk”.

- 43.3.5 For shortage/damages in respect of consignments despatched under clear railway receipt at railway risk, the suppliers will not be responsible. The consignees will take up the matter with the carrying railways for direct settlement. If the claims are rejected by the carriages, the indenter/consignee will have to bear the loss.

**SECTION 44: RECEIPT OF STORES**

- 44.1 All materials received should be examined, counted or measured when delivery is taken. The record of the detail count/weightment or measurement should be kept in the Goods Receipt Sheets (GRS) and the total number of quantity should be simultaneously entered in the Bin Card where maintained.
- 44.2 In case of tools and plant, the items should be brought on relevant form with complete details. For items of Plant and Machinery, detailed History sheets in prescribed form should be completed forthwith and recorded carefully.
- 44.3 Coupon books (Duly numbered) will be obtained from the authorised Petrol Pump Dealer and kept in safe custody. Whenever Petrol/Diesel etc. is required to be drawn SA/Sr.Suptd./Jr. Exe./AME /ME/SM/SM(SG)E who has been authorised to fill the coupon will fill the same in triplicate. Two copies of the coupon will be given to Petrol Pump Dealer who after issuing the material will return one copy to the paying authority along with the bill.
- 44.4 All stores of sundry nature, particularly sanitary fittings, electrical fittings, and spares etc. should be allotted in alphabetical and numerical number according to the standards and sizes available and the same should be indicated accordingly in the registers and on racks where these are kept. Similarly stocks of pipes and steel of different kinds and sizes should also be allotted a distinguishing alphabetical and numerical number to facilitate maintenance of accounts.

## **SECTION 45: SAFE CUSTODY OF STORES**

- 45.1 The SM/SM(SG)E/Asstt. GM is responsible to ensure that proper arrangement is made throughout the office for the safe custody of stores and for their protection from deterioration and fire.
- 45.2 Chowkidars employed to guard the stores should be drawn either from the permanent cadre of police or retired Military pensioners through DGR. If required, help of local Employment Exchange should be sought for getting suitable persons.
- 45.3 Stores should as far as possible be centralised at one place in all towns instead of keeping them at scattered places, and should be kept in pucca buildings and properly fenced stores yards. Even in big cities like Kolkata and Mumbai, the stores should not be kept at more than two places.
- 45.4 The SA/SS/Jr. Exe.. will be entirely responsible for the issue of the stores. At the end of each day the locks of the stores should be properly sealed. The store keeper should see the locks when he closes the godown at the end of the day carefully and examine the seal before opening the godown next time to see that the seal has not been tampered with. If he finds that the seal has been tampered with in his absence, he should at once bring this fact to the notice of the higher authorities for reporting the matter to the police. In the absence of Storekeeper, SA/SS/Jr. Exe. will discharge such functions.
- 45.5 The stores will be under the strict supervision and vigilance of SA/SS/Jr. Exe. who will be particularly responsible for the safe custody of stores.
- 45.6 Telltale clock should be provided at three or four points in the store buildings or yard where the magnitude of stores justifies such provisions as additional safeguard to prevent watchmen from going to sleep. The watchmen will have to punch cards on the telltale clocks at intervals of half-hour or one hour. The cards cannot be punched on the telltale clocks if they are not inserted at the exact stipulated intervals.
- 45.7 On the occurrence of any loss, action against the person concerned with the upkeep of stores should be taken promptly so as to avoid delay in obtaining evidence against persons responsible for the loss.
- 45.8 In the case of large stores the duty hours of Chowkidars, employed round the clock, should be kept 8 hours, irrespective of the fact whether such stores cater to the requirements of a number of Divisions or of a single Division.

**SECTION 46: ISSUE OF STORES**

**46.1 Preparation of indents**

46.1.1 Materials should be issued on receipt of indent on specific Form PWA 7. The indent book for drawing materials should be kept in safe custody in the Office of AME/ME. The indents may be written by the SA/SS/Jr. Exe. or the Sub-Divisional Clerk.

46.1.2 A register to keep a watch on the issue of materials for works, with reference to quantities specified in the agreement should be maintained by the AME/ME in the prescribed format as given below to avoid excessive issue of materials to contractors and to keep a watch over the issues. In this register a record of the materials drawn for use on work done departmentally may also be kept if considered necessary by the AME/ME. The AME/ME will arrange to get the signature of SM/SM(SG)E on the register as well as on the indent at the earliest. The SM/SM(SG)E should arrange to get the indent examined to see that the issues are roughly correct. For detailed check of the quantities issued, it is the responsibility of the AME/ME to ensure that the materials are not issued in excess of the quantities actually required.

**REGISTER OF MATERIALS AT SITE ACCOUNTS**

1. Section \_\_\_\_\_
2. Name of Work \_\_\_\_\_
3. Name of Material \_\_\_\_\_
4. Requirement \_\_\_\_\_
5. Issue Rate \_\_\_\_\_

Sl. No	Date of Receipt/ Issue	Received From / Issued To	Receipt/Issued	Balance	Remarks

46.1.3 AME/ME should arrange to hand over the indents to the Contractor or his authorised representative to receive the stores from the stores/ Central Stores.





**SECTION – 47: LOSSES ON STORES AND THEIR WRITE OFF**

Powers to write off the losses on stores should be as per DOP.

## **SECTION – 48: CHIEF TECHNICAL EXAMINER’S ORGANISATION**

### **48.1 Functions**

48.1.1 The Chief Technical Examiner’s Organisation is under the administrative control of the Central Vigilance Commission. The Chief Technical Examiner’s Organisation Conducts Inspection of works of AAI from the Vigilance angle on its own or on a complaint being received by/referred to them. The inspections can be carried out by them for works of any magnitude, both in respect of capital and maintenance (revenue) works.

48.1.2 In order to facilitate selection of work for inspection, a quarterly return has been prescribed for submission to them giving the list of work (and purchase of materials) in progress. These returns are to be consolidated for each zone and sent by the ED Engg to CTE. The returns are required on separate sheet-circle wise indicating clearly the name and address of Engineer-in-Charge under whose charge the work is being got executed. At present the quarterly progress reports are to include all Civil works costing more than Rs.100.00 lacs. Electrical works costing more than Rs.30.00 lacs and Horticulture works costing more than Rs. 2.0 lac and to be submitted on separate sheets of paper. These returns are required to be submitted for quarters ending March, June, September, and December. (Proforma of the return is enclosed as **Annexure 7**.)

48.1.3 In order to ensure timely submission of these returns to CTE so as to reach them by 15<sup>th</sup> of succeeding month of the quarter, the following procedure/drill should be strictly followed.

- (i) SM/SM(SG)E/Asstt. GM shall send the returns to their DGM/JGM/GM by 5<sup>th</sup> of the succeeding month of the quarter to which the report pertains.
- (ii) DGM/JGM/GMs shall send 3 copies of consolidated report to ED Engg by 7<sup>th</sup> of the succeeding month.
- (iii) ED Engg shall send return to CTE by 12th of the month.

The returns shall cover works of magnitude as specified above and not of lower values, or as notified by CTE from time to time.

No endorsement / return should be sent by SM/SM(SG)E/Asstt. GM or DGM/JGM/GM direct to CTE. CTE shall get the returns only from ED Engg concerned.

Apart from the above quarterly return, no other return is to be submitted by the Officers to CTE (Unless specifically asked for). The returns of completion of works, work order, muster roll, copies of NITs etc. are not to be sent to CTE as a matter of routine, unless specifically asked for in particular case.

## 48.2 Inspection by CTE

48.2.1 Intimation regarding the inspection/examination of works by CTE is sent by him to SM/SM(SG)E/Asstt. GM concerned with a copy to DGM/JGM well in advance. In order to enable the inspection to be carried out properly, various documents relevant to the work are generally asked for by CTE to be kept ready at site. A list of such documents is given in **Annexure-8**. Anyhow, this list is not exhaustive/comprehensive. Any other record considered relevant for inspection can be called by them.

48.2.2 The inspection reports are sent by CTE to the SM/SM(SG)E/Asstt. GM concerned, which SM/SM(SG)E/Asstt. GM shall reply within period mentioned in the letter. Anyhow matter of serious nature or such matters pertaining to sanctions of estimates, NITs, acceptance of tenders etc. dealt by higher officer, may be referred by CTE for replies directly by the higher officers. In respect of such paras, SM/SM(SG)E/Asstt. GM shall send his comments if required by the higher Officers, to DGM/JGM/GM concerned and not directly to CTE.

48.2.3 In order to expedite replies and settle the points and to ensure timely action, it is essential that the time limit fixed by CTE is strictly adhered by officers of AAI at all levels. For keeping a proper watch in the disposal the SM/SM(SG)E/DGM/JGM/GM/ED Engg shall maintain a register in proforma given in **Appendix -68**.

## 48.3 Recoveries of Overpayments Pointed out by the CTE

48.3.1 Normally the recoveries of overpayments pointed out by CTE should be made within a period of three months from the date of issue of memorandum by CTE. The overpayment arising out of the defects pointed out by the CTE should be promptly assessed and accepted by the SM/SM(SG)E/Asstt. GM, whenever agreed to and the recoveries effected from the money due to the contractor either from the same work from the immediate running bills or from any other work or from the lumpsum security deposit, if any.

In no case, action to recover the overpaid amount should be kept in abeyance on account of the case being before the arbitrator. Action in terms of the award when received and accepted by the competent authority. Adjustments be made. In order that the recoveries of overpayment pointed out by CTE are promptly effected a register of overpayments pointed out by the CTE Organisation and subsequent recoveries effected should be maintained by the SM/SM(SG)E/Asstt. GM.

48.3.2 Since the CTE is not a party to the contract, no reference should be made to his inspections/examinations of works in any correspondence made with the Contractors Notice for rectification of defects, recoveries to the made etc. who is the party to the contractor, acting for an on behalf of the President of India.

Annexure-7

**STATEMENT SHOWING THE QUARTERLY PROGRESS OF CAPITAL WORKS FOR QUARTER ENDING MARCH/JUNE/SEPT/DECEMBER.**

Civil Works Costing Rs. 100 lacs & above  
 Electrical Works Costing Rs. 30 lacs and above  
 Horticulture Work Costing Rs. 2 lac and above

Sl. No	Name of work & location	Est. cost (in lacs)	Tender cost (in lacs)	%age above below Schedule of rates applicabl e-le	Agree ment no.	Age- nay	Date of comme ncement	Time of complete -ion	Physical progress of work	Name of Engineer in-charge with address	Remar ks
1	2	3	4	5	6	7	8	9	10	11	12

**ANNEXURE-8**

**(Reference Section 48)**

List of Documents Considered Essential for Inspections by CTE and which may be called for Examination of work

- (1) (a) Press cuttings, including extended dates, if any
    - (i) for pre-qualification of Architects/ Consultants
    - (ii) call of tenders.
  - (b) Register of sale of tenders,
  - (c) Register of opening of tender.
  - (2) File giving reference to Financial sanction and approval of competent administrative authority Preliminary estimate.
  - (3) Copy of detailed estimate and its technical sanction by competent authority.
  - (4) Approval NIT (Notice Inviting Tenders) in original.
  - (5) Rejected tenders and comparative statements for: -
    - (a) Selection of Architects/consultants
    - (b) Short-listing or pre-qualification of tenders
    - (c) Other tenders.
  - (6) Justification statement and corresponding notings in support of tender/offer accepted.
  - (7) Details of negotiations, if any, made before acceptance of tenders.
  - (8) Original contracts with consultant/contractor.
  - (9) Guarantee Bonds etc. towards security for work, machinery/mobilisation advance etc. including extension of validity.
  - (10) Insurance policies of work, materials, equipment, men etc. including extension of validity.
  - (11) Guarantees for water tightness, termite proofing etc.
  - (12) Standard specifications.
-



- (13) Standard schedule of Rates.
- (14) Drawing Architectural and structural.
- (15) All connected Measurement Books, level books, field books and lead chart.
- (16) All Running Account Bills with all connected statements/Vouchers etc.
- (17) Statement showing details of check of measurement by Superior Officer – Copies of orders laying down such requirements.
- (18) Materials at site accounts/dismantled materials record.
- (19) Site order Books/Tests records/Log books.
- (20) Details of Extra/Substituted items and of deviated Quantities being executed considered for execution in the work alongwith Analysis of rates.
- (21) Hindrance Register.
- (22) Office correspondence files and inspection notes, if any, issued by inspecting Officer.
- (23) Complaint records, if any.
- (24) Any other documents relevant to the works.



## **SECTION-49: PURCHASE PREFERENCES**

- 49.1 Govt. of India's Guidelines related to purchase preference to central PSEs issued from time to time should be applicable and a mention of this shall also be made in the tender document.



## **SECTION – 50 EVALUATION OF PERFORMANCE OF CONTRACTOR/FIRMS**

Annual Evaluation of performance of contractors/firms shall be carried out at RHQ/CHQ in a prescribed format (**At Appendix – 70**) as per following:

- a) Works upto Rs. 5.00 crores – Reports shall be maintained at Regional Headquarter (RHQ). However, Corporate Headquarter (CHQ) shall be kept informed.
- b) Works above Rs. 5.00 crores– Reports shall be maintained at Corporate Headquarter (CHQ).



**CHAPTER-VI**

**SECTION – 51: ENGINEERING ESTABLISHMENT**

**51.1 General**

For maintenance and capital works execution at metro airport Airports/non-metro airports), Regional Headquarters, engineering officers one level below the airport-in-charge or region-in-charge be positioned along with the required assisting technical and secretarial/administrative staff.

51.1.1 The same norm cannot be equally applied for all the field units at airports in view of the varying magnitude and complexity of the installations and airport category. Accordingly these are categorised (A) to (E) and the minimum need based man power to be positioned is listed below: -

S.no	Airports	GM (Engg)		DGM (Engg)		SM/SM(SG)		ME/AM (Engg)		Jr. Ex. (Engg)	
		C	E	C	E	C	E	C	E	C	E
A	Airport Director (ED level)	1	1	2	1	2	2	4	4	8	8
B.	Airport Director (GM level)			1	1	2	1	4	4	8	8
C.	Airport Director (JGM level)			1		2	1	4	2	8	8
D.	Airport Director (DGM level)					1	1	2	2	4	4
E.	Airport Director (SM/SM(SG) level)							1	1	1	1

**51.2 Yardstick of posting Project-in-charge will be as under:**

51.2.1 For the projects SM/SM(SG)/DGM/JGM/GM or ED Engg (C) level of officer be positioned as Project-in-charge depending upon magnitude of project or group of projects as given below: -

- For project costing up to Rs. 15 crores - SM/SM(SG) Engg[C]
- For project costing Rs. 15 to 50 crores - DGM/JGM Engg[C]
- For project costing Rs. 50 to 150 crores - GM Engg[C]
- For project costing above Rs. 150 crores - ED Engg[C]

This project management set up will be independent of the regular engineering set up at the airport dealing with minor capital works and maintenance works.

In all the cases, the project heads will be supported with requisite technical and other categories of manpower duly provided with necessary office equipment, communication and transportation facilities.

In case of sanction of major projects, required manpower should be identified and sanctioned at the approval stage itself taking into account the distribution of workload in the project period and beyond.

On completion of the project, when the installations are transferred to the maintenance units, the staff from the project units is identified for transfer to handle them during the course of defect liability period to ensure smooth transition of taking over of the installations.

51.2.2 The Engineer-in-Charge for contract management of individual contract costing more than Rs. 100.00 crores will be GM Engg[C] and should be responsible for the following.

- i) Process of calling tenders and issue of award letter to the contractor after acceptance to tender by the competent authority.
- ii) Signing of contract with the agency to which the work has been awarded and maintaining original agreements.
- iii) Contract administration and management.
- iv) All the communication with the contractor in relation to the contract, management as per relevant contract clauses.
- v) Monitoring progress of works.
- vi) To constantly supervise the works for ensuring quality and timely completion of work and to be overall responsible for quality of work.
- vii) Co-ordination with different agencies for effective execution of projects.
- viii) Passing of bills.
- ix) Payment to contractors/agencies through the accounts officer attached with the project set up.
- x) Responsible for replying audit paras, CTE paras, etc.
- xi) To effectively defend arbitration proceedings.
- xii) Issue of completion certificate for the project.

51.2.3 Integrated Finance Unit should be attached with the project set up headed by finance officers as detailed below: -

<b>Grade of Project-in-charge</b>	<b>Grade of Finance Unit</b>
SM/SM(SG) Engg (C)	Asstt. Manager/ Manager
DGM/JGM Engg.(C)	Manager /Senior Manager
GM Engg. (C)	SM/SM(SG)/ DGM
ED Engg.(C)	DGM /GM

51.2.4 The supporting engineering, finance and ministerial staff will be as per project requirement on approval of competent authority.

51.3 **Yardsticks for determination of Engineering Establishment**

51.3.1 Work Load Basis: -

[a] **PROJECTS** - For average annual workload of Rs. 5.0 crores or part thereof in respect of civil works or Rs. 5.0 crores or part thereof in respect of electrical works.

SM/SM(SG)E [C/E]	-	1 nos.
Asstt. Manager/Manager [C/E]	-	2 nos.
Jr. Exec. Engg[C/E]	-	4 nos.

- [b] **MAINTENANCE** - For average workload of Rs. 3.0 crores for civil works & Rs. 3.0 crores for electrical works or part there of: -  
 SM/SM(SG)E [C/E] - 1 nos.  
 Manager/AME [C/E] - 3 nos.  
 Jr. Exec. Engg [C/E] - 6 nos.
- [c] **CHQ & RHQ** - For airport desk, monitoring, co-ordination, design  
 SM/SM(SG)E [C/E] - 50% of total divisions in projects + maintenance  
 Manager/AME [C/E] - 3 nos. per SM/SM(SG)E at Hqrs.  
 Jr. Exec. Engg [C/E] - 3 nos. per SM/SM(SG)E at Hqrs.
- [d] **R&D [C/E]**  
 SM/SM(SG)E [C/E] - 2 nos.  
 Manager/AME [C/E] - 1 nos.  
 Jr. Exec. Engg [C/E] - 1 nos.  
 Lab Assistant - 3 nos.
- [e] **TECHNICAL CELL [CHQ]: -**  
 SM/SM(SG)E [C/E] - 2 nos.  
 Manager/AME [C/E] - 2 nos.
- [f] **RHQ [MIS CELL]: -**  
 ME - 1 nos.  
 Jr. Exec. Engg[C/E] - 1 nos.

### 51.3.2 Design Cell at CHQ:

Structural design cell will be headed by Executive Director Engg (C). 50% of this establishment will be on permanent basis and the balance should be positioned from against the sanction at Hqrs. as para 50.4 [c]. In case of highly specialised jobs or on account of high additional workload, services of outside specialists/consultants should be obtained. Structure of this Directorate will as below:

Executive Director Engg (C)	-	1 no.
Gen. Manager Engg (C) (1 for Pavement + 1 for Building Structure)	-	2 no.
Dy. Gen. Manager Engg (C) Pavement Structure (1 for Pavement Design + 1 for R&D)	-	2 no.
Dy. Gen. Manager Engg (C) Building Structure (1 for Building Design + 1 for R&D)	-	2 no.

Each DGM will be associated with 2 SM/SM(SG), 4 Manager/Asstt. Manager and 8 Jr. Executive.

51.4 **Maintenance units of Engg. Department**

The maintenance units of Engg. Department should be headed by an officer one rank, below the rank of APD or airport-in-charge subject to the minimum placement provided for in the categories of airports on the need base provisions given in para 51.1. In case of highly specialised jobs or on account of high additional workload, services of outside specialists/consultants should be obtained.

51.5 In CHQ & RHQ one DGM/JGM over every 3 SM/SM(SG)E's & one GM for every 2 DGMs are to be provided as per guidelines.

51.6 The above guidelines are to determine the engineering manpower at various places like field stations, projects, RHQ and CHQ.

**APPENDIX-1**

**AIRPORTS AUTHORITY OF INDIA  
ENGINEERING WING [A/A & E/S Sanction Memo]  
[Reference Para 9.3.3]**

Sanction No. \_\_\_\_\_ Dated \_\_\_\_\_

SUBJECT : \_\_\_\_\_  
\_\_\_\_\_.

SUB HEAD : \_\_\_\_\_  
\_\_\_\_\_.

- 1) The Administrative Approval and Expenditure Sanction of the \_\_\_\_\_  
\_\_\_\_\_, AAI is hereby conveyed for and amount of Rs. \_\_\_\_\_ (Rupees  
\_\_\_\_\_) for the above  
mentioned work as detailed in Annexure-I.
- 2) The expenditure shall be debited to the Head of Account \_\_\_\_\_.
- 3) The work shall be executed by the \_\_\_\_\_.
- 4) The work has been assigned Job No. \_\_\_\_\_, which shall be  
quoted in all future correspondence on the subject.
- 5) This issues with the approval of \_\_\_\_\_,AAI vide  
\_\_\_\_\_ Dated \_\_\_\_\_

Enclosures : Annexure-I

(Signature of Officer Issuing  
sanction order)

**COPY TO :**

1. Regional Executive Director, AAI, Concerned Region/Airport Director (METRO AIRPORT), AAI, Concerned Airport..
2. General Manager/JGM, Engg.(C/E), AAI, Concerned Region or Airport.
3. General Manager/JGM (F&A), AAI, RAU, Concerned Region or Airport.
4. Airport Director, AAI, Concerned Airport.
5. SM/SM(SG), Engg.(C/E), AAI, Concerned Airport.

**INTERNAL**

1. P.S./EA to Member (Planning), AAI/CHQ.
2. Executive Director (Engg.), AAI/CHQ.
3. Executive Director (F&A), AAI/CHQ.
4. Executive Director (Planning), AAI/CHQ.
5. The General Manager, Engg. (C/E), AAI/CHQ.

**AIRPORTS AUTHORITY OF INDIA  
ENGINEERING WING**

**TECHNICAL SANCTION NO.\_\_\_\_  
[Reference Para 9.7.3]**

**PART - I**

Station : \_\_\_\_\_

Name of Work : \_\_\_\_\_  
\_\_\_\_\_

A/A & E/S No. & date : \_\_\_\_\_  
\_\_\_\_\_

Total amount of  
A/A & E/S accorded : \_\_\_\_\_.

Total of Civil works : Rs. \_\_\_\_\_

Total of Electrical works : Rs. \_\_\_\_\_

Add \_\_\_\_\_ cost escalation  
over DSR (prevalent) items (Civil) : Rs. \_\_\_\_\_

Add \_\_\_\_\_ cost escalation  
over SR items(Electrical) : Rs. \_\_\_\_\_

TOTAL Rs. \_\_\_\_\_

Add 3% Contingencies : Rs. \_\_\_\_\_

GRAND TOTAL Rs. \_\_\_\_\_

Say Rs. \_\_\_\_\_

(Technically sanctioned for Rupees \_\_\_\_\_  
\_\_\_\_\_ only subjected to a variation of  $\pm$  10%).

Dated : SIGNATURE OF APPROVING AUTHORITY

**PART II**  
(Allocation W.R.T. sub-project)

-----  
Corresponding amount of Technical sanction  
Administrative Approval.

ITEM	AMOUNT (Rs.)	AMOUNT OF THIS T/S (Rs.)	AMOUNT UPTO INCLUDING THIS TS (Rs.)

**PART - III**  
(Summary of Technical Sanction)

1. Amount of A/A & E/S for the whole project : Rs. \_\_\_\_\_
2. Amount of all T/S upto & incl. This T.S. : Rs. \_\_\_\_\_

SIGNATURE OF APPROVING AUTHORITY

F.No. \_\_\_\_\_ Dated :

Distribution:

1. Regional Executive Director, AAI, Concerned Region/ Airport Director (METRO AIRPORT), AAI of concerned Airport.
2. General Manager/JGM, Engg.(C/E), Concerned Region/Airport.
3. General Manager/JGM(F&A),AAI, RAU, Concerned Region/Airport.
4. Airport Director, AAI, Concerned Airport.
5. SM/SM(SG), Engg.(C/E),AAI, Concerned Airport.

Internal:

1. Executive Director (Engg.), AAI, CHQ.
2. Executive Director (F&A), AAI, CHQ.
3. Executive Director (Planning), AAI, CHQ.
4. General Manager, Engg.(C/E), AAI, CHQ.

**[STANDARD FORMAT OF TENDER NOTICE TO DISPLAY ON AAI WEBSITE FOR WORKS OF ESTIMATED COST FROM Rs. 10 LAKHS TO RS. 500 LAKHS (5 CRORES)]**

**TENDER NOTICE**  
**[Reference Para 9.11.2.1]**

1. Sealed \_\_\_\_ (a) \_\_\_\_ rate tenders are invited by \_\_\_\_\_ (b) \_\_\_\_\_ on behalf of Chairman, A.A.I. from enlisted contractors of appropriate class of CPWD/MES/P&T/State PWD/PSU's (\* Agency specialised in the similar nature of work) for the work of “ \_\_\_\_\_ (c) \_\_\_\_\_ ” for an estimated cost of Rs. \_\_\_\_ (d) \_\_\_\_ . Time allowed \_\_\_\_ (e) \_\_\_\_ (in months). Tenders will be issued from \_\_\_\_ (f) \_\_\_\_ to \_\_\_\_ (f) \_\_\_\_ , received till \_\_\_\_ (g) \_\_\_\_ upto 1500 Hrs and opened on the same day at 1530 Hrs. The scope of work includes \_\_\_\_\_\*\*  
 \_\_\_\_\_
2. Tender forms will be issued to those contractors who produce certificate from clients of having satisfactorily completed (# Phase/Part completion of the scope of work in a contract shall not be considered) at least three works, each of Rs. \_\_\_\_ (h) \_\_\_\_ or two works, each of Rs. \_\_\_\_ (i) \_\_\_\_ or one work of Rs. \_\_\_\_ (j) \_\_\_\_ of similar nature of work of (\*\*\*) Nature of job to be defined by NIT approving authority) during the last seven years ending on \_\_\_\_ (k) \_\_\_\_ . (Firms showing work experience certificate from Non Government / Non PSU organizations should submit 'Tax Deduction at Source certificate' in support of their claim for having experience of stipulated value of works), produce proof of annualised average financial turn-over of Rs. \_\_\_\_ (l) \_\_\_\_ during the last three years ending 31<sup>st</sup> March, of previous financial year. The firm should own and possess (\*\*\*) equipment to be defined by NIT approving authority).
3. Application for issue of tender document shall be submitted upto \_\_\_\_ (m) \_\_\_\_ on all working days alongwith Tender fee of Rs. \_\_\_\_ (n) \_\_\_\_ (Non refundable) in the form of Demand Draft drawn in favour of Airports Authority of India payable at \_\_\_\_ (p) \_\_\_\_ . The application shall be supported with self attested copies of valid registration, Permanent Account Number (PAN) and client certificate for experience indicating date of completion as per agreement and actual date of completion of work. The financial turnover should be supported with annual report (abridge balance sheet and profit & loss account) and documentary proof of owning, leasing and possessing required machinery and T&P shall be submitted.
4. Purchase Preference to Central Public Sector Undertaking shall be applicable as per the directives of Govt. of India prevalent on the date of acceptance.
5. AAI reserves the right to accept or reject any or all applications without assigning any reason. AAI reserves the right to disallow issue of tender document to working agencies whose performance at ongoing project(s) below par and unusually poor.

**NOTE FOR FILLING UP VACANT SPACES**

- i) Item rate or percentage rate, whichever is applicable, shall be filled at (a) by NIT approving authority.



- ii) Designation and address of officer authorised to call tenders should be filled at (b) by NIT approving authority.
- iii) Details at (f), (g), (m) and (p) should be filled by the officer calling tenders.
- iv) Details at (c), (d), (e) and (n) should be filled by the NIT approving authority.
- v) Details at (k) ending last day of the month previous to the one which application are invited shall be filled by officer inviting the tenders.
- vi) Amount at (h) shall be 40%, (i) shall be 50%, (j) should be 80% of value of (d) respectively.
- vii) Details of (l) shall be [30% of the estimated cost put to tender]
- viii) \* To be kept as per decision of NIT approving authority only for specialised nature of jobs as defined in CPWD Work Manual and technical instructions/circulars issued from time to time.
- ix) \*\* The scope of work broadly clarifying the nature of work and specifications thereof shall be filled by NIT approving authority.
- x) \*\*\* Nature of similar job should be defined and equipments required, if any, shall be modified by NIT approving authority as per the nature of job for which tenders are being invited. NIT approving shall identify the minimum essential equipment and machinery requirement for the work which should be owned by the applicant firm and the additional or specialised machinery which may be permitted for lease.
- xi) # Phase /Part completion of work shall not be considered for satisfactory completion of work for the purpose of experience. However, pre-determined phasing of work may be accepted by the tender approving authority subject to its meeting the laid down criteria.
- xii) No single firm shall be permitted to submit two separate applications, as individual as well as in joint venture/consortium or under two different joint venture firms/consortium, unless otherwise specified/permitted in the case of specialized/composite/ turnkey contracts.
- xiii) Prequalification evaluation criteria parameters should be predecided by NIT approving authority and made explicit in the bid document at the time of inviting tender. Decision for award of contract for goods and services should be based on detailed evaluation/exclusion criteria stipulated in bid document.
- xiv) Technical requirement in the tender document should be unambiguous.

**(STANDARD FORMAT OF TENDER NOTICE TO DISPLAY ON AAI WEBSITE FOR WORK OF ESTIMATED COST MORE THAN Rs. 5 crores)**

**NOTICE INVITING APPLICATION FOR SHORT-LISTING OF CONTRATORS**

**[Reference Para 9.11.2.1]**

Applications for short listing are invited by \_\_\_\_ (a) \_\_\_\_ on behalf of Chairman, AAI from the eligible contractors for the work of “\_\_\_\_\_ (b) \_\_\_\_\_” at an estimated cost of Rs. \_\_\_\_ (c) \_\_\_\_ with period of completion \_\_ (d) \_\_ months.

Qualifying requirements of contractor/firms.

- i) Should be registered in appropriate class of CPWD/MES/P&T/Railways/State PWD/PSU (\*\* Agency specialised in the similar nature of work) and having Permanent Account Number (PAN).
- ii) Should have satisfactorily completed (# Phase/Part completion of the scope of work in a contract shall not be considered) three works, each of Rs. \_\_\_\_ (e) \_\_\_\_ or two works each of Rs. \_\_\_\_ (f) \_\_\_\_ or one work of Rs. \_\_\_\_ (g) \_\_\_\_ of similar nature of (\*\*\*) Nature of job to be defined by NIT approving authority) during last seven years ending on \_\_\_\_ (h) \_\_\_\_ . Client certificate for experience should show the nature of work done, the value of work, date of start, date of completion as per agreement, actual date of completion and satisfactory completion of work. Firms showing work experience certificate from non-Government/Non PSU organizations should submit copies of ‘Tax Deduction at Sources Certificate’ in support of their claim for having experience of stipulated value of works.
- iii) Should have annualised average annual financial turnover of Rs. \_\_\_\_ (i) \_\_\_\_ during last three years 31<sup>st</sup> March of the previous financial year. As a proof, copy of Abridged Balance Sheet alongwith Profit & Loss Account of the firm should be submitted along with the application.
- iv) Should possess (\*\*\*) Concrete batching plant, computerised hot mix plant, pavers etc.) documentary proof of owning and possessing required machinery and T&P, shall also be submitted alongwith the application.

Applications from Joint Venture Company duly registered/Consortium of firms/companies should be considered subject to following conditions :-

- i) Consortium of firms should not comprise of more than two firms.
- ii) Joint Venture firm as a single unit or each member of the consortium should be registered in appropriate class with the authorities mentioned in Para 2(i) and have Permanent Account Number (PAN).
- iii) A detailed and valid agreement exists between the consortium members defining clearly the role, responsibility and scope of work of each member alongwith nomination of leader for the purpose of this work commensurating with their experiences and capabilities and a confirmation that the members of the consortium assume joint and several responsibility.
- iv) The leader of the Consortium of firm shall meet 80% of the qualification criteria as defined in paras 2(ii) and 2(iii) above and shall accept overall responsibilities of contract obligations for the total scope of work during execution and upto defects liability period.

- v) Both the Consortium firms should jointly possess the required T&P, machinery and manpower and should produce self attested documentary proof of owning and possessing required machinery.
- vi) In addition to 3 (i) to 3 (iv) above, qualification criteria defined in Para 2 shall be met fully jointly by both the members of Consortium or as a single unit of joint venture.

The tenderers shall submit their applications alongwith firms bio-data and self attested documents in support of their meeting each criteria mentioned above by \_\_\_\_\_(j)\_\_\_\_\_. AAI reserves the rights to accept or reject any or all applications without assigning any reasons. AAI reserves the right to call off possess of short listing of contractor at any stage without any assigning any reason.AAI reserves the right to disallow issue of tender document to working agencies whose performance at ongoing project(s) below par and unusually poor.

Purchase Preference to Central Public Sector Undertaking shall be applicable as per the directives of Govt. of India prevalent on the date of acceptance.

### **NOTE FOR FILLING UP VACANT SPACES**

- i) Designation and address of officer authorised to by NIT approving authority at (a).
- ii) Details at (b), (c) and (d) shall be filled by the NIT approving authority.
- iii) Values at (e), (f) & (g) shall be 40%, 50% and 80% of value at (c) respectively.
- iv) Details at (h) ending last day of the month previous to the one in which application are invited shall be filled by officer calling the tenders.
- v) Details of (i) shall be [30% of the estimated cost put to tender]
- vi) (j) shall be filled by officer calling applications.
- vii) \* The scope of work broadly clarifying the nature of work and specifications thereof shall be filled by NIT approving authority.
- viii) \*\* To be kept as per decision of NIT approving authority only for specialised nature of jobs as defined in CPWD Work Manual and technical instructions/circulars issued from time to time.
- ix) \*\*\* Nature of similar job should be defined and equipments required, if any, shall be modified by NIT approving authority as per the nature of job for which tenders are being invited. NIT approving shall identify the minimum essential equipment and machinery requirement for the work which should be owned by the applicant firm and the additional or specialized machinery which may be permitted for lease.
- x) # Phase /Part completion of work shall not be considered for satisfactory completion of work for the purpose of experience. However, pre-determined phasing of work may be accepted by the tender approving authority subject to its meeting the laid down criteria.
- xi) No single firm shall be permitted to submit two separate applications, as individual as well as in joint venture/consortium or under two different joint venture firms/consortium, unless otherwise specified/permitted in the case of specialized/composite/ turnkey contracts.
- xii) Prequalification evaluation criteria parameters should be predecided by NIT approving authority and made explicit in the bid document at the time of inviting tender. Decision for award of contract for goods and services should be based on detailed evaluation/exclusion criteria stipulated in bid document.
- xiii) Technical requirement in the tender document should be unambiguous.

**GLOBAL PRE QUALIFICATION TENDER NOTICE**  
**[Reference Para 9.11.2.2]**

1. Applications for short listing are invited by \_\_\_\_\_ (a) \_\_\_\_\_ on behalf of Chairman, AAI from the eligible firms for the work of \_\_\_\_\_ (b) \_\_\_\_\_ at an estimated cost of Rs. \_\_\_\_\_ (c) \_\_\_\_\_ for \_\_\_\_\_ (d) \_\_\_\_\_ nos equipment with period of completion \_\_\_\_\_ (e) \_\_\_\_\_ months.
  
  2. Qualifying requirements of firms are :
    - (i). Should be a manufacture of \_\_\_\_\_ (f) \_\_\_\_\_.
  
    - (ii). Should have satisfactorily completed works of SITC of \_\_\_\_\_ (g) \_\_\_\_\_ in line with any one of the following criteria either of value criteria A1, A2, A3 or of Qty criteria B1, B2, B3 during last seven years ending on: \_\_\_\_\_ (h) \_\_\_\_\_
      - A.(1) Three separate works each costing not less than \_\_\_\_\_ (i) \_\_\_\_\_
      - A (2) Two separate works each of costing not less than \_\_\_\_\_ (j) \_\_\_\_\_
      - A (3) One work costing not less than \_\_\_\_\_ (k) \_\_\_\_\_.

OR

    - B (1). Three separate works each consisting of minimum \_\_\_\_\_ (l) \_\_\_\_\_ No equipments.
    - B (2) Two separate works each consisting of minimum \_\_\_\_\_ (m) \_\_\_\_\_ No. equipments.
    - B (3) One work consisting of minimum \_\_\_\_\_ (n) \_\_\_\_\_ No. equipments.
  
  - (iii) Should furnish performance certificate from the clients for the above works that the equipment had satisfactorily performed after completion.
  
  - (iv). Should have annualized average annual financial turnover of Rs. \_\_\_\_\_ (o) \_\_\_\_\_ against works executed during last three years ending 31<sup>st</sup> March of pervious year. As a proof, copy of Abridged Balance Sheet along with Profit and Loss Account of the firm shall be submitted along with the application.
- 
3. The firms shall submit their applications alongwith documents in support of their meeting each criteria mentioned under para 2 above by \_\_\_\_\_ (p) \_\_\_\_\_

The checklist as per Performa as Annexure shall be duly filled & submitted.

4. Accredited Agent of foreign firms can purchase Tender document on behalf of their Principle firm on submission of accreditation certificate in addition to above required documents. However, tender document shall be signed only by the Principle firm & not by the Accredited Agent.

AAI reserves the right to accept or reject any or all applications without assigning any reason.

**NOTE FOR FILLING UP VACANT SPACES**

- (i). Designation and address of officer authorized to call applications shall be filled by NIT approving authority at (a).
- (ii). Details at (b), (c), (d) & (e) shall be filled by the NIT approving authority.
- (iii). Detail at (f) and (g ) shall be name of the equipments.
- (iv). Details at (h) shall be cut off month / date.
- (v). Details at (i) ,(j) and (k) shall be 40%, 50% and 80% of (c)
- (vi). Details at (l), (m), (n) shall be 40% 50% and 80% of (d) with its capacity.
- (vii). Details at (o) shall be 30% of (c)
- (viii) Date (p) shall be filled by NIT approving authority at (a).

Note:- When more than one work site requirement are decided to be clubbed for a common tender the value of  (c)  and  (d)  shall be the sum total of the all individual work.

**CHECK LIST FORMAT TO BE SUBMITTED BY APPLICANTS ALONG WITH TENDER APPLICATION**

Name of Work: .....a.....

1	2	3	4
Ref No.	Qualifying criterion/parameter/ supportive document		Supporting Document must have the following salient information which AAI would like to note
(i)	Name and registered office address of the Manufacturer		Copy of Certificate of Incorporation from the respective Government body
	Manufacturing Facility/Works address of the Manufacturer		Copy of Certificate of Incorporation from the respective Government body. In case more than one Manufacturing work site of their company, enclose similar certificate for each work address from that country of incorporation.
	Manufacturer of <u> (b) </u>		Certificate from the respective Government body / Chamber of Commerce. <u>Note</u> : The certificate shall have information that the firm is a manufacture of <u> c </u>
(ii)	Should have satisfactorily completed the specified works in line with any one of the following criteria during last <u>seven years</u> ending <u> d </u> i) Three separate works each costing not less than Indian Rupees <u> (e) </u>  ii)Two separate works each costing not less than Indian Rupees <u> (f) </u> iii)One work costing not less than Indian Rupees <u> (g) </u>		A)Details of the Three /Two / One work(s) as applicable.  1. 2. 3.  <b>Note1:</b> The above certificates shall have reference to order, date of completion, and value of work  <b>Note 2:</b> Date of Completion of work prior to <u> (h) </u> shall not be considered.

(iii)	Performance certificates of the works submitted under (ii)	Details of the client certificates. 1. 2. Note 1: The above certificates shall have the information viz; a) the date of commissioning of the _____ (i) b) Satisfactory performance and its period. c) Issuing authority name and Designation. d) Name of work. e) Contract / Order No. f) Completion value.										
(iv)	Annualized average financial turnover equivalent to Indian Rupees ___j___ against works executed during last three financial years. As a proof, copy of Abridged Balance Sheet of the firm / certificated from the chartered accountant should be submitted along with the application.	<table border="1"> <thead> <tr> <th>Year</th> <th>Turnover (In Lakhs)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>	Year	Turnover (In Lakhs)							Average:	
Year	Turnover (In Lakhs)											
3	Documents in support of criteria under para 2 of Tender Notice.	<b>Self Attested</b>										
4	Details of manufacturer's accredited Agent	Name and Address	Authorization letter enclosed YES/NO									

5	Details of any other information a) b) c)		
<p style="text-align: center;"><b><u>Place:</u></b></p> <p><b><u>Date:</u></b> _____ <b><u>SIGNATURE WITH STAMP</u></b></p> <p style="text-align: center;">Authorized signatory of the Manufacturer</p>			

**Note :** If any of the supporting document is submitted in any language other than English, a self attested English version should be submitted with the respective document.

- (a) Name of Work.
- (b), (c) Name of Equipment / Equipments.
- (d) Indicate cut off month.
- (e), (f), (g) Indicate limiting value of work.
- (h) Indicate cut off date.
- (i) Indicate equipment.
- (j) Indicate Limiting value of turnover.



**PROFORMAS FOR SUBMITTING SITE AND SOIL PARTICULARS**

**[Reference Section 10.4.4]**

**PART-1: SITE PARTICULARS**

1. Name of Project :
- 2 Location :
- 3 General description of site and its topography :
- 4 Total area to be leveled; If any :
- 5 (i) Are there any low areas requiring earth filling? If so its area and volume of earth work involved. :  
(ii) Site from where earth is to be brought and its lead. :  
(iii) Approximate Cost :  
(iv) Royalty payable; if any :
- 6 (i) Is there any high level area requiring earth work in cutting? If so, its area and volume of earth work involved. :  
(ii) (ii) site for the disposal of surplus earth and its lead :  
(iii) Approximate cost :  
:
- 7 Attached surveyed site plan showing levels of the proposed site and adjoining sites, roads, structures, locations of trees, obstructions such as H.T lines, telephone lines, public sewer lines etc. :
- 8 (i) Source of water supply; :  
(ii) Is the permission of the local body to tap water from their sources to be obtained? :  
(iii) Expected quantity of water supply from the sources; :

- 9 (i) Details of existing sewerage system in and around the project site; :
- (ii) Recommendation of proposed sewerage schemes; :
- 10 Is local Municipal Bye Law applicable to the proposed project? If so, attach a copy of the Bye Law :
- 11 What is the source of electricity? :
- 12 List out obstructions in the site such as H.T lines, telephone lines, sewage lines, public roads, structures etc; Attach a plan showing these details. :
- 13 (i) Details of existing drainage system of the locality :
- (ii) Proposal for drainage system i/c storm water drainage of the project :
- 14 Crushing strength of bricks and its quality in general. :

#### PART-II: SOIL PARTICULARS

- 1 General classifications and nature of soil :
- 2 Attach result of soil investigation report; or trial bores; :
- 3 Recommendation about safe bearing capacity of soil and its depth. :
- 4 C.B.R./K-value :

PART-III : LOCAL MATERIALS

S.N	Description	Unit	Sources	Distance in KM from site	Rate at sources	Rate at site
1	BRICKS with size and class designation	1000 nos.				
2	Fine sand	Cum				
3	Coarse sand	Cum				
4	Stone screening and aggregate.					
	4.7 mm	Cum				
	6.00 mm	Cum				
	10 mm	Cum				
	12.5 mm	Cum				
	20 mm	Cum				
	25 mm	Cum				
	40 mm	Cum				
	50 mm	Cum				
	63 mm	Cum				
5	Stones for pavement works					
	50-20 mm	Cum				
	63-40 mm	Cum				
	90-40 mm	Cum				
6	Stone for masonry	Cum				
7	Ist class Teak wood in scantling	Cum				
8	Ist class Teak wood in plank	Cum				
9	II nd class Teak wood in scantling	Cum				
10	II nd class wood in plank	Cum				
11	Ist class Deodar wood in scantling	Cum				
12	Ist class Deodar wood in plank	Cum				
13	Blown type bitumen of penetration 85/25	Tonne				
14	Paving Bitumen S-90	Tonne				
15	Paving asphalt 30/40	Tonne				
16	Paving asphalt 80/100	Tonne				
17	Paving asphalt 60/70	Tonne				
18	Blasting powder	Kilogram				
19	Blasting fuse wire	Each				
20	Portland cement	Tonne				
21	White cement	Tonne				
22	Aldrin emulsifiable concentration 30%	Litre				

23	Dehradun white lime	quintal
24	Dry hydrated lime	quintal
25	Unslaked lime	quintal
26	Marble chips upto 4mm and down size (white & black)	quintal
27	Diesel oil	Litre
28	Kerosene oil	Litre
29	M.S round bars upto 12 mm dia and below	quintal
30	M.S round bars above 12 mm dia	quintal
31	Twisted steel / deformed bars	quintal

#### PART – IV : LOCAL LABOUR

S. N	Description	Unit	Rate inclusive of weekly rest day
1	Bhishti	Each Per day	
2	Blacksmith 1 <sup>st</sup> class	Each Per day	
3	Blacksmith 2 <sup>nd</sup> class	Each Per day	
4	Carpenter 1 <sup>st</sup> class	Each Per day	
5	Carpenter 2 <sup>nd</sup> class	Each Per day	
6	Beldar (Male)	Each Per day	
7	Collie (Female)	Each Per day	
8	Fitter (Grade I)	Each Per day	
9	Mason 1 <sup>st</sup> class	Each Per day	
10	Mason 2 <sup>nd</sup> class	Each Per day	
11	Painter	Each Per day	
12	Skilled beldar for floor rubbing	Each Per day	
13	Welder	Each Per day	
14	White washer	Each Per day	
15	Mate	Each Per day	

**CHECK LIST FOR PAVEMENT ESTIMATES**  
**[Reference Section 10.4.4]**

1. Whether acquisition of land is necessary and a separate estimate to this effect sent in advance?
2. Whether scope of work and its phasing for execution got approved in writing from Directorate of Planning?
3. Whether the proposal duly marked in colour scheme got approved from user Department and Directorate of Planning before going ahead with preparation of estimate?
4. Has the soil investigation been carried out and the following informations have been furnished?
  - (a) Engg. Classification of soil.
  - (b) Bearing capacity of soil.
  - (c) CBR value (Soaked for 4 days).
  - (d) Mechanical analysis.
  - (e) Liquid limit and plastic limit.
  - (f) Trial pit data upto 5 below proposed foundation level and the plan showing the location of the trial pits.
5. Is the soil, black cotton or expansive?
  - (a) Whether proper drains exist for preventing the soil coming into contact with water?
  - (b) Any soil stabilization is proposed?
  - (c) Will it be economical to completely remove the black cotton soil and replace with good soil?
6. Does the soil contain sulphates / carbonates in excess of 0.2% and organic matter in excess of 2%?
7. If so what precautions are taken?

Have the CBR values of the existing soil mixed with locally available materials been received from various mixes?
8. What is the minimum depth of water table (monsoon)?
9. Where the water table is too high, has the sub-surface drainage been provided?

10. What is the HFL and its frequency?
  - (a) Does it require raising the level of pavement?
  - (b) Does it require protective works, if so, anything such provided.
11. If the pavement is nearer to sea, has the formation level been kept well above tidal wave?
12. Has any provision kept for protecting the pavement from frost action?
13. If the operations on the existing pavement have to be suspended due to provision of WBM/WMM or Concrete in the overlay work, has it been decided in a combined meeting with DGCA / IAC etc.?
14. A. Have proper ramps been provided during overlay of the pavement at the inter sections with secondary pavements if later not being strengthened?  
  
B. Have proper precautions been taken so that the pavement shall not be dismantled during strengthening of the secondary pavement?
15. Has the provision been made for cable crossing in extension portion as per standard drawings?
16. A. If culvert of adequate strength is existing within the proposed widening of apron, have the possibilities of widening the apron on the other side explored?  
  
B. Has the culvert being provided been designed for LCN 40 LCN 60 and LCN 100 for category CB & A runway respectively?  
  
C. Have the possibilities of avoiding the culvert been examined, by diverting the drain well away from the pavements economically?
17. Has the provision been made for approach road from the crash tender garage to the runway for rescue operations?
18. Have the existing specifications obtained in design been received through concerned DGM/JGM and are tallying with those available as per old records?
19. A. Have all the junctions been designed for proper drainage?  
  
B. Whether existing side drains and outfall arrangements are adequate or need modifications?
20. Has the detailed plan showing the locations and sizes of cracks on existing rigid pavement received and correct value of 'C' design of bonded / unbonded overlay adopted?
21. If the bituminous overlay is to be provided without stoppage of operations, has the provision been made for extra quantities required for ramps?
22. Has the provision been made for raising / shifting the existing runway lights as per Annexure 14?

23. Has the provision been made for shoulders to the pavements?
24. A. Has the clearance of at least 40 M, been kept between apron and terminal building for avoiding blast effect for new projects?  
  
B. Has at least 40m for airbus, 30m for B 737 and 20m for others been provided between apron and existing runway?
25. Have the runway ends for 150 M length been provided with rigid pavement having proper drainage at the turning pads?
26. Has the provision been made for repair of existing cracks in rigid pavement with cement grout for rigid overlay and sand bitumen mix for flexible overlay?
27. A. When upheaval has occurred due to ruts, has it been ensured that the minimum overlay of 25mm is provided at such spot?  
  
B. Has it been ensured that the highest point of upheaval in ruts / waves is not more than 75mm above lowest point of the rut / wave?
28. Has the provision been made for earth filling to merge the basic strip with the edge of shoulders of runway etc. raised due to overlay?
29. Whether formation levels have been finalized taking into account of the future extension / widening of the pavement?
30. Have fillets of 30 m radius been provided at junctions of the pavement?
31. Whether side and vertical clearance are in conformity with Annexure 14?
32. Whether plinth of the existing buildings are above the adjacent pavements by at least 60m.
33. Whether the design of overlay is based on the K value of existing pavement evaluated?
34. Is the estimate based on L section and cross section?
35. Whether Longitudinal / cross slopes, vertical curves and distance between two changes of slopes etc. have been provided as per Annexure 14?
36. Has DAC been provided under the wheel path of air crafts where this item is not provided for any other in the estimate?
37. Has proper sandwiching layer with lean concrete is provided below CC pavement?
38. Whether provision for runway marking is in conformity with Annexure 14?
39. Whether estimate is based on latest market rates?

40. Whether the estimate has been checked for measurements and units by SA/SS/JrEx and reviewed by AM/M technically before approval by SM/SM(SG)E/Asst.G.M.Engg.
41. Whether the following enclosures have been attached with the draft estimate?
- A. Development plan indicating various proposals duly approved by Directorate of Planning.
  - B. L-section indicating formation lines, Depression filing lines, vertical curve lines stating horizontal; vertical scales in metres?
  - C. Cross section indicating formation lines, depression filling lines in colour, stating position for taxi-track junction and secondary junction in metres and showing the details of merging the ends of pavement / shoulder with basic strips?
  - D. Plan indicating formation levels of runway, taxi tracks and apron?
  - E. Full size development plan showing specifications for existing pavement and proposed overlays in colour scheme?
  - F. Have all the obstructions proposed to be shifted / removed been marked on the development plan?
42. Whether bitumen of 60/70 grade provided for tack coat in works of North India?
43. Whether standard nomenclature has been provided for all the items?
44. Whether the items have been analysed based on standard analysis?
45. Has necessary provision been made for over runs as per standards?
46. Whether invert levels of culverts, new drains and out falls have been fixed for overall drainage of the aerodrome?



**CHECK LIST FOR L-SECTION OF RUNWAY**  
**[Reference Section 10.4.4]**

1. Are the existing levels of ground, if it is for new runway and of the pavement if it is existing runway been received from the site duly certifying that there will be no further changes in the levels?
2. Has the L-Section of the existing runway been plotted based on these levels?
3. Has a uniform cross slopes been provided, throughout the runways?
4. Have the points of slope changes been checked for minimum distance between 2 successive slope changes as per standards?
5. Have curves been provided at the points of slopes change if the rate of change of slope is more than that as per standards?
6. Have necessary length of curves on both sides of centre line been indicated in the L section?
7. Have necessary precautions been taken regarding provision of slope not more than 0.8% in the first and last quarter of the runway and not more than 1.25% in the remaining portion subject to the condition that no where along the length of runway the slope change should exceed 1.5%?
8. Have the junctions of the runway with taxi tracks, secondary runway etc. been shown on the L section giving points of inter sections and width etc.?
9. Is the existing surface of the ground / runway, the depression filling line, different layers shown separately indicating thickness etc.?
10. Have proper trials been made to minimise the depression fillings on existing runways if the quantity is likely to come in excess?
11. If the existing runway is being extended, has proper matching of the existing L section at junction made without excessive depression filling etc.?
12. Have proper provision been kept at both ends of the runway for further extension, so that L section of the existing runway can be properly matched a future date without any difficulty?
13. Have the junctions of runway with other pavements been properly designed in such a way that it will not create any drainage problems at a future date?
14. Has L section at such junctions been properly raised or lowered depending upon the levels of the pavement which is joining at that point, taking it into consideration of its future extension etc.
15. Have the points of L sections in the case of strengthening / overlay of pavement been fixed after drawing the minimum depression filling lines and thus matching it as per standards?

16. If the cross slope of the existing runway is flatter being rigid pavement and now it is being strengthened with flexible pavement, have minimum slopes required for drainage in case of flexible pavement been provided?
17. Have separate L section and cross section been prepared for apron, taxi track, secondary runway etc. and their junctions?
18. If excess filling is coming due to one point being higher, have necessary trials been made to reduce the quantities by providing barest minimum thickness on such point?
19. Have the specification for depression filling been indicated?
20. Has the L section been started from the lower designation of the runway?
21. Has the position of Drains / Culverts / Cable crossing shown in the L section?
22. Whether runway designation marks indicated at both ends of the runway?

**CHECK LIST FOR PREPARATION OF PRELIMINARY ESTIMATE FOR BUILDINGS**  
**[Reference Para 10.4.4]**

1. Is the proposal approved by Member (Planning) and development plan duly signed by GM(Plg)/ ED (Plg).?
2. a) Is land available?  
b) If land is to be acquired, had the separate estimate for such acquisition already been sent giving idea of cost of work?
3. Have you moved for getting soil investigation report?
4. Whether the proposal been examined generally from technical soundness for the scheme as a whole point of view so as to have flexibility for expansion (vertically and horizontally), free from generating obstructions from aviation point of view etc.?
5. Have the layout and building drawings and specifications been either received or obtained from Directorate of Planning.?
6. Whether the copies of the preliminary drawings and layout plan have been issued to the concerned GM Engg (Civil & Elect.)?
7. Whether the drawing are generally in order from points of roof, drainage, expansion joints, toilet blocks, water supply, sanitary services, ventilation, lighting, protection from the rain beating, future extensions both vertically and horizontally? Has the SM / SM(SG) Engg agreed with the drawings from such angles?
8. Whether the site particulars in the prescribed proforma have been received as per site conditions?
9. Whether the electrical provision made as given by GM Engg (Elect)
10. Whether the site particulars have been scrutinized and there are no inconsistencies?
11. Whether the plinth area calculation have been done properly and checked by AM/M Engg (C) hundred percent and signed by him in token of?
12. Whether the cost index is the latest and approved within six months and is approved by concerned ED (Engg).?
13. Whether the estimate is based on approved plinth area rates of the year suitably enhanced by Cost Index (CI).?
14. Whether the estimate is prepared based on the market rates for the items which are not available in DSR or on latest local schedule of rates if considered workable?

15. Whether any lump sum provisions have been adopted? If so, the contingencies charges on such items have been excluded?
16. Does the building has any portion of the height extra / less over normal height?
17. Whether the building requires special treatment to foundations due to less bearing capacity of soil and injurious chemicals? (a) Has the soil investigation been carried out in that area?, (b) What is the recommended depth and type of foundations.? (c) Is the water available for construction declared fit for construction by the field units?
18. Is there any river or nallah passing nearby? If so, what provisions are required to protect the foundations?
19. What is the height of the building proposed? Is there any approval taken from the local authorities corporations etc regarding restriction in the height?
20. How much extra is added for remoteness of site?
21. Have necessary provisions been kept for bulk services for civil and Elect.?
22. Whether the provisions based on proper percentage for services have been made?
23. Whether extra provisions have been made for buildings in seismic zone?
24. Has the provisions for Horticulture been made?
25. Have necessary provisions made for storm water drains?
26. Has the key plan showing the layout of the proposal been attached with the estimate?
27. Has it been mentioned in the history, the plinth areas of quarter / buildings as approved quoting approved types design / drawing where available?
28. Has analysis of rates been appended alongwith estimates?
29. Has the extras been included in the individual abstract in a sequence a provided in the plinth area rates?
30. Whether the provision for extra for antitermite treatment has been made?

**LIST OF REMOTE / DISTURBED AREAS**

[Reference Para 10.6.1(ii)]

**J & K STATE**

1. JAMMU
2. SRINAGAR
3. LEH

**NORTH EAST AREA**

1. GUWAHATI
2. AGARTALA
3. DIMAPUR
4. IMPHAL
5. SILCHAR
6. JORHAT
7. BARAPANI
8. DIBRUGARH
9. LILABARI
10. LENGPUI

**BIHAR STATE**

1. GAYA

**WEST BENGAL**

1. COOCH BEHAR



**MAINTENANCE COST INDEX  
REPAIR COST INDEX  
[Reference Section 10.8.1]**

S. No	Description of item	Unit	Rates at Delhi correspond to base 100 as on 1.10.79	Current Rate (Rupees)	Weightage	Cost Index = $\frac{\text{Col. (5)} \times \text{Col. (6)} \times 100}{\text{Col (4)}}$
1	2	3	4	5	6	7
1	Aggregate 10 mm & 20 mm average	Cum	77.84		4.00	
2	Cement (Store issue rate)	Quintal	46.08		9.50	
3	Lime (Dehradun)	Quintal	44.19		24.00	
4	Paint (Synthetic enamel and ready mixed, average rate)	Litre	36.50		17.50	
5	Sand	Cum	37.88		4.00	
6	Timber (II nd class Deodar and kail in scantling, 50% Deodar and 50% kail)	Cum	2186.60		9.50	
7	Coolie/Beldar	Each	13.00		21.50	
8	Mason/Fitter/Carpenter /Painter	E Ach	18.30		10.00	
					Total Say	

**SERVICE COST INDEX**  
**[Reference Section 10.8.1]**

S.No	Description of item	Unit	Rates at Delhi correspond to base 100 as on 1.10.79	Current Rates (Rupes)	Weghtage	Cost Index = $\frac{\text{Col. (5)} \times \text{Col. (6)} \times 100}{\text{Col (4)}}$
1	2	3	4	5	6	7
1	Work charged staff					
	a) Beldar/Coolie	Each	13..00	185.00	24.00	
	b) Mason/Carpenter	Each	1830	18.30	30.00	
2	Muster roll staff*	-	-	-	11.50*	
3	Material *	-	-	-	34.50*	

\* Figure as per repair cost index



**Maintenance of Work Diary**  
**[Reference Para 11.3.3]**

To control proper progress of projects “Works Diary” as per the attached performa should be maintained for all the works costing more than Rs. 1.00 crore. For works costing more than Rs. 1.00 crore. ME shall send copies of diary to the SM/SM(SG)E and DGM of the Region or of Headquarter, as the case may be.

## **WORK DIARY**

1. The Works Diary in the attached format should be maintained by SA/Sr. Supdt./Jr. Exe. Engg. in respect of contracts of Value more than Rs. 1.00 crore.
2. SM/SM(SG)E and ME should ensure that all entries are correctly filled and the Works Diary is maintained up to date all the times.
3. Particular care should be taken to record the following: -
  - (a) Approx quantity of important materials /stores brought at site.
  - (b) Brief mention of important items of work completed and passed on the date.
  - (c) Number of skilled, semi-skilled and unskilled persons engaged and working at site.
  - (d) Details of tools/plants (Government and Contractors) working at site.
  - (e) Visit of inspecting officers.

**WORK DIARY**

**PART – A**

1. Name of Work.....
2. Contract Agreement No .....
3. Date of Acceptance .....
4. Name and Registered address of Contractor.....
5. Contract Sum and /or percentage on Schedule of Rate.....
6. Period of Contract.....
7. Name and local address of Contractor/ Contractor’s Agent .....
8. Date of First Works order.....
9. Date of handing over the site to contractor .....
10. Date of Commencement of work .....
11. Stipulated date of completion of Contract.....
12. Suspension orders showing duration and authority.....
13. Extended date of completion with authority .....
14. Date of actual completion of work .....
15. Date of work taken over.....
16. Date of expiry of Maintenance Period .....

**WORK DIARY**

**PART – B**

DAILY RECORD

---

1. Weather

---

2. Labour engaged by Contractor

<b>Skilled</b>						<b>Unskilled</b>	
Category	No	Category	No	Category	No	Category	No
Concreter		Paviour		Glazier		Mate	
Bricklayer		Tiller		Plumber		Bhisty	
Mason		Painter				Mazdur (man)	
Carpentar		Polisher				Mazdur	
Joiner						(women)	
						Mazdur (boy)	

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

Schedule 'B' materials		Contractor's materials		Rejections	
Materials	Quantity	Materials	Quantity	Materials	Quantity

4. Details of plant, equipment and transport and transport working on site.

	T & P Hired under Schedule 'C'		Contractor's T&P equipment & transport	
T & P	Quantity	Remarks regarding breakdown maintenance etc	Quantity	Remarks regarding breakdown maintenance etc
Road Roller Concrete. Mixer Tar Roller Transport				

5. Brief particulars of work in progress

---

6. Important stages completed and passed

---

7. Remarks of Visiting Officer

---

Dated signature of Engineer-in-charge  
or representative

Date of signature of contractor  
or his authorized agent

**SURVEY REPORT OF BUILDING  
[Reference Section 12.5.1]**

Airport\_\_\_\_\_

Region\_\_\_\_\_

S.N	Brief Description of Structure	Year of Construction	Book Value in Rs.	Remarks of AM/M/SM explaining the reason for survey report and indicating Reserve Price	Remarks of the Airport Incharge	Recommendation of DGM/GM/APD /RED	Sanction order of Chairman

**DEPARTMENTAL CHARGES**  
**[Reference Section 13.2]**

Breakup of Departmental Charges shall be as under:

S.N.	Objective of Works	Repair and Maintenance	Minor Works costing upto Rs. 5 lakh	Construction works costing above Rs. 5 lakhs to Rs. 5 crores	Construction works costing above Rs. 5 to 10 crores	Construction works costing more than Rs. 10 crores.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Preparation of preliminary sketches.	-	½%	¼%	¼%	¼%
2.	Preparation of detailed working drawings.	-	1%	¾%	½%	½%
3.	Preparation of preliminary estimates.	¼%	¼%	¼%	¼%	¼%
4.	Preparation of detailed estimates.	-	½%	¾%	½%	¼%
5.	Preparation of structural designs.	-	1%	1%	¾%	¾%
6.	Execution	19 ¼%	19 ¼%	7 ¾%	4 ¾%	4%
7.	T&P (Machinery & Equipment)	¾%	¾%	¾%	½%	½%
8.	Audit and Accounts	¼%	1%	¼%	¼%	¼%
9.	Pensionary	¼%	¼%	¼%	¼%	¼%
10.	Total	20.75%	23.75%	12%	8%	7%

**REGISTER OF MEASUREMENT BOOKS**  
**[Reference Section 14.1.3]**

DIVISION \_\_\_\_\_

AIRPORT \_\_\_\_\_

SUB DIVISION \_\_\_\_\_

S. N. Book	Name of the Engineer to whom issued	Date of Issue	Signature of Engineer	Date of Return	Signature of Engineer	Remarks
1	2	3	4	5	6	7



**PROFORMA FOR REPORTING LOSS OR DAMAGE OF M.B. FOR ITS WRITE OFF**  
**[Reference Section – 19.2]**

1.	The date on which the M.B. was lost/damaged	:	
2.	From whose custody it was lost/damaged	:	
3.	Detailed circumstances leading to its loss/ damage	:	
4.	What efforts were made to trace the M.B.?	:	
5.	By whom the last measurement was recorded?	:	
6.	If any register is maintained to watch the movement of the M.B.?	:	
7.	Whether the M.B. contained the details of any work for which payment has not been made?	:	
8.	Whether any audit objection or contractor's dispute relating to the M.B. is pending and if so nature thereof and how it is proposed to settle up?	:	
9.	Whether the work is susceptible of measurements again? If not, what are the proposals to make final payment for the out- standing bills?	:	
10.	Whether SM/SM(SG) (Engg) is satisfied that by writing of fresh measure-ments on the basis of other subsidiary record, if any, AAI will not be put to any loss. If no, what steps are suggested to safeguard against any such short coming?	:	

11.	Details of disciplinary action taken against persons responsible for the loss	:	
12.	Details of remedial measures taken to avoid recurrence of such cases	:	
13.	Any other remarks	:	

**SENIOR MANAGER/SM (SG) (ENGG.)**

REGISTER OF STANDARD MEASUREMENT BOOKS  
**[Reference Section 20.1.5]**

DIVISION \_\_\_\_\_

AIRPORT \_\_\_\_\_

SUB DIVISION \_\_\_\_\_

S. N. of S.M.B Alphabetical	Date of Issue	Name of SA/SS/ Jr. Ex Engg to whom issued	Particulars of works		By whom certified as correct to form basis of				Remarks
					Annual Repairs estimate		Payment of contractors		
			Name of Bldg or structure	Page	Name of Design ation	Date	Name of Design ation	Date	
1	2	3	4	5	6	7	8	9	10

**TEST CHECK STATEMENT**  
**[Reference Section 21.1(v).(a)]**

Name of work  
 Bill No.

S.No	M.B. No.	Page No.	Value of test check at full agreement rate	of check:	Result of test satisfactory / unsatisfactory	Total value of check by AM/M Engg	Total value of check by SM/SM(SG) Engg
(1)	(2)	(3)	(4)		(5)	(6)	(7)

**PART RATE STATEMENT**  
**[Reference Section 21.1.v(b)]**

Name of work  
 Bill No.

S.No	Agreement Item No	Brief Description of item	Full rate	Part rate allowed	Reasons of part
(1)	(2)	(3)	(4)	(5)	(6)

**RECOVERY STATEMENT OF DEPARTMENTAL MATERIALS**  
**[Reference Section 21.1.v(c)]**

Name of work :

Bill no.

S. No.	Item	Upto date quantity issued	Quantity consumed upto this bill	Quantity recovered upto this bill	Balance quantity to be recovered
--------	------	---------------------------	----------------------------------	-----------------------------------	----------------------------------

**STATEMENT OF THEORETICAL CONSUMPTION OF CEMENT/BITUMEN**

**[Reference Section 21.1.v(d)]**

Name of work :

Bill no.

Sl No	Brief description of Item	Quantity executed upto this bill	Unit	Coefficient of consumption cement /bitumen	Theoretical quantity of cement /bitumen required
-------	---------------------------	----------------------------------	------	--	--

---

**Total**

Actual quantity of cement consumed:

Signature of SA/SS/Jr. Exe Engg

AM/Manager Engg

**PROCEDURE OF SUBMISSION OF FORM TO ACCOMPANY RUNNING / FINAL BILLS OF CONTRACTORS**

**[Reference Section 21.1 (Note)]**

To check essential features while scrutinizing and passing the bills of contracts a form to accompany bills as per proforma is given below.

All the details in Sl. No. 1 to 18 shall be checked and filled in by AM/M Engg before submitted the bill to the Division Officer. Before passing and recommending the bill for payment SA/SS/Jr. Ex. (F&A) of the Division Officer shall scrutinized these details and put his signature. Where SA/SS/Jr. Ex. (F&A) is not posted concerned SM/SM(SG)/Asstt. GM shall sign it.

Details in Sl. No. 19 to 21 shall be filled in by the AM/M (F&A) of Pre-Check Section of RAU/SAU and same shall be signed by the SM/SM(SG)/Asstt. GM (F&A) before releasing payment. Where SM/SM(SG)/Asstt. GM Engg has been declared DDO the particulars in S.No 19 to 21 shall be filled in by the SA/SS/Jr. Ex. (F&A) and shall be signed by the SM/SM(SG)/Asstt. GM Engg.

**Form to Accompany Running / final Bills of Contractors**

1.	Name of Work	:	
2.	Name of Contractor	:	
3.	Agreement No.	:	
4.	Tendered Amount	:	
5.	Date of commencement of works	:	
6.	Stipulated date of completion	:	
7.	Date of actual completion of the work if completed or likely date of completion if it is in progress	:	
8.	Has the Contractor applied for extension of time and has the provisional / final extension of time been granted?	:	
9.	<u>Measurement Books</u>		
(a)	Give the number of accompanying M.B.	:	
(b)	Has the A.E.E. and E.E. test checked the measurements to the extend of	:	



	50% and 10% respectively (attach statement)?		
(c)	Has the contractor's signature been obtained in the M.B. and bill in token of acceptance of measurement?	:	
10.	<u>Addition, Substitution, Deviation</u>	:	
(a)	Have all extra/substituted items billed for been covered by proper sanction and give reference to the letter under which an extra / substituted item statements have been sent for approval.	:	
(b)	If part rates have been proposed have reasons been given thereof (attach part rate statement)?	:	
11.	<u>Issue of Materials</u>	:	
(a)	If recovery statement for issue of departmental materials attached? If full recovery has not been made for materials issued, give reasons for the same.	:	
(b)	Has a statement of theoretical consumption been attached for materials issued departmentally?	:	
(c)	If materials not stipulated in agreement have been issued, has sanction of the competent authority been obtained and the issue rate got approved?	:	
(d)	Are there any dismantled materials, if so, have they been accounted for properly in the dismantled material register?	:	
(e)	Have unstamped dated receipts been obtained from the contractor for materials issued to him upto date?	:	
12.	<u>Excess Over Estimates</u>	:	
	In case upto date expenditure on the works exceeds the permissible limit of	:	

	excess over technical sanction has a revised estimate been submitted for sanction?		
13.	<u>Recoveries</u>	:	
	Have recoveries been proposed by the following officers. If so, has the recovery been affected?	:	
(a)	Chief Technical Examiner		
(b)	Labour Officer		
(c)	Labour Enforcement Officer		
(d)	Any other Authorities		
14.	Has recovery been affected for T&P issued to the contractor?	:	
15.	If T&P not stipulated in the agreement has been issued to the contractor has the rate of recovery been approved by E.E. and has the recovery been made?	:	
16.	If water has been stipulated under agreement clause for the work has the recovery been proposed?	:	
17.	(In case of final bill) has the contractor cleared the stacks of all malba, rubbish etc.?	:	
18.	(In case of final bill) has the completion certificate been recorded in the M.B.?	:	

Signature of Junior Accounts  
Officer/Executive Engineer

	<u>For Accounts Officer in Pre-Check Section of R.A.U.</u>		
19.	Has the Contractor's ledger been brought upto date?	:	

20.	Has the Contractor's ledger been verified before submitting bill with pass orders.	:	
21.	Have any court attachment for advice from any Division etc. been received fro recovery and, if so, have they been affected in the bill		

Signature of SM/SM(SG)/Asstt.GM (F&A)

**FIRST AND FINAL BILL  
[Reference Section 21.2 (a)]**

Division \_\_\_\_\_

Sub Division \_\_\_\_\_

Name of work (in case of bills for work done) \_\_\_\_\_

Cash Book Voucher no \_\_\_\_\_

Dated \_\_\_\_\_

Name of Contractor or supplier and reference to agreement	Items of work or suppliers (grouped under “sub-heads” and sub-works of estimate)	Reference to recorded measurements and date	Date of		Quantity	Rate	Unit	+Amount	Total amount payable to the contractor or supplier		Payee’s dated signature in token of (1) acceptance of bill and (2) acknowledge of payment	Dated signature of witness	Dated certificate of disbursements	
			Write ten order to comm. ence work	Actual completion of work					In figure	In word			Mod of payment cash or cheque (number and date)	Paid by me
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Book No – Page No - Date

Rs. P

Rs. P

Rs. P

Dated \_\_\_\_\_

Pay Rs. \_\_\_\_\_ in cash and Rs. \_\_\_\_\_ by cheque.

\_\_\_\_\_ Signature Rank officer preparing the

Dated \_\_\_\_\_

\_\_\_\_\_ Signature Rank officer authorizing payment

For use in Accounts Office Checked

Passed for payment

Paid vide cheque no. \_\_\_\_\_

DGM (F&A)

dated \_\_\_\_\_ C.V. No \_\_\_\_\_

Manager (F&A)

SM/SM(SG) (F&A)

SM/SM(SG) (F&A)

\_\_\_\_\_ dated \_\_\_\_\_

Manager (F&A)

**FINAL BILL**  
**[Reference Section 21.2 (a)]**

(To be used for “final payments” to contractors on lump sum contracts)

Cash Book Voucher No : dated  
 Name of Contractor :  
 Name of work :  
 Serial No. of this bill :  
 No. and date of this previous bill for this work :  
 Reference to agreement :  
 Date of written order to Commence work :  
 Date of actual completion of work :

**1. ACCOUNT OF WORK EXECUTED**

Sub-work, sub-head or item of work	Rate Rs.	Unit Lump sum for each	Up-to-date Quantity	Amount Rs	Remarks
Total				_____	
				-	
Additional work				_____	
				-	
Deduct commissions				_____	
				-	
Total Value of works done to date F				_____	
				-	

## II CERTIFICATES AND SIGNATURE

I certify that the work has been completed in accordance with the prescribed drawings and specification and after taking into account all the authorised additions and alterations, the value of work done, up to date, conformably with the terms of the contractor's agreement, is Rs \_\_\_\_\_.

2. The detailed measurements of the authorised additions and alterations mentioned above were made by \_\_\_\_\_ on \_\_\_\_\_ and are recorded at page \_\_\_\_ of Measurement Book No. \_\_\_\_\_ and I am satisfied that they are correct.

Signature of Contractor. \_\_\_\_\_

Dated signature of the certifying Engineer\* \_\_\_\_\_

Rank \_\_\_\_\_

\*This certificate must be signed by the SM/SM(SG) (Engg) or any officer empowered by the local Administration to sign it.

---

## III MEMORANDUM OF PAYMENTS

---

	Rs.	P.	
1.	Total value of work done up to date as per 'F' of Account I of this bill		
2.	Deduct: -		
	(i)	Up to date intermediate payment already made as per entry 'K' of Account 1 of last Bill no. dated _____	D
	(ii)	Total Secured Advances outstanding as per entry 'C' of Account II last Bill No. _____ Dated _____	E
3	Payment now to be made: -		
	(a)	By recovery of amounts creditable to this book	G
	(b)	By recovery of amounts creditable to other work or heads of account _____	H
	(c)	By Cheque _____	

---

+ Pay (Rs \_\_\_\_\_) Rupees

Date signature of officer  
authorizing payment

\_\_\_\_\_  
Rank \_\_\_\_\_

---

+ Here specify the net amount payable, vide item 3(c) of Account III

#### IV. ACQUITTANCE

\* Received (Rs. \_\_\_\_\_) Rupees \_\_\_\_\_ as above in full settlement of all demands on account of the contract.

Amount in Vernacular.

Stamp  
\_\_\_\_\_

+Witness

Full Signature of Contractor  
\_\_\_\_\_

Paid by me by --- - Cash  
Cheque no \_\_\_\_\_

dated \_\_\_\_\_  
\_\_\_\_\_

Dated initials of person actually  
Making payment.

Rank \_\_\_\_\_

\*The payee's acknowledgement should be for the gross amount as per item 3 (a-b+c) of Account III.

+ Payment should be attested by some known person when the payee's acknowledgement is given by a mark, seal or thumb impression.

---

#### V. REMARKS

This space is reserved for any remarks which the Disbursing Officer or the Divisional Officer may wish to record in respect of the execution of the work, check of measurements or the state of contractor's account.)

For use in Account Office

Checked

Manager (F&A)

Senior Manager (F&A)

**RUNNING ACCOUNT BILL**  
**[Reference Section 21.2 (b)]**

(For Contractors- This form provides for (1) Advance Payments and (2) Payments for Measured Works for Item rate or percentage rate contract. The form of Account secured Advances, which has been printed separately should be attached, where necessary.)

Division \_\_\_\_\_ Sub division \_\_\_\_\_

Cash Book Voucher No. \_\_\_\_\_ Dated \_\_\_\_\_

Name of Contractor \_\_\_\_\_

Name of work \_\_\_\_\_

Serial No. of the bill \_\_\_\_\_

No. and date of the previous bill for this work \_\_\_\_\_

Reference to Agreement No \_\_\_\_\_ of \_\_\_\_\_

Date of written order commence work \_\_\_\_\_

Date of actual completion of work \_\_\_\_\_

**I. ACCOUNT OF WORK EXECUTED**

Items work (grouped under “sub- head” and “sub-works” of estimate)	of	Unit	Rate	Quantity executed up-to- date as per measurement book	Payment on the basis of measurements Up-to- date	of actual Since previous bill	Remarks
1	2	3	4	5	6	7	
Rs. P			Rs. P		Rs. P		
Total value of work done to date (A)							
Deduct value of work shown on previous bill _____.							
Net value of work since previous bill (F)							
Figure (F) in words Rupees _____							
_____							

N.B. – When there are two or more entries in column 6 relating to each sub-head of estimate they should in the case of works the accounts of which are kept sub-head wise, be totaled and the total recorded in column 7 posting the Works Abstract.



## II CERTIFICATES AND SIGNATURES

1. The measurements on which are based the entries in columns 1 to 6 of Account I, were made by \_\_\_\_\_ on \_\_\_\_\_ and are recorded at page \_\_\_\_\_ of measurement Book no. \_\_\_\_\_.
2. Certificated that in addition to and quite apart from the quantities of work actually executed as shown in column 4 of account I, some work has actually been done in connection with several items and the value of such work (after deducting there from the proportionate amount of secured advances, if any, ultimately recoverable on account of the quantities of materials used therein) is in no case, less than the advance payments as per item 2 of the memorandum of payments made or proposed to be made, for the convenience of the contractor, in anticipation of and subject to the results of, detailed measurements, which will be made as soon as possible.

Dated signature of officer \_\_\_\_\_  
Preparing the bill Rank \_\_\_\_\_  
SA/SS/Jr. Exe/AME/ME

\_\_\_\_\_ \* \* Dated signature of officer \_\_\_\_\_  
Dated signature of Contractor authorizing payment Rank \_\_\_\_\_

### III memorandum of payments.

1. Total value of work actually measured, as per Acct. 1 Rs. P.  
Col 5 Entry (A).
2. Total "up -to-date" advance payments for work not yet measured, as per details given below: -

---

\*This certificate must be signed by the SA/SS/Jr. Exe or AME/ME.

\*\* This signature is necessary only when the officer who prepares the bill is not the officer who authorizes the payment. In such a case the two signatures are essential.

- (a) Total as per previous bill \_\_\_\_\_(B)  
 (b) Since previous bill \_\_\_\_\_ as per page \_\_\_\_\_ of MB No. \_\_\_\_\_(D)
3. Total “up-to-date” secured advances on security of materials as per Annexure Col .8, Entry. (C).  
 4. Total (items 1+2+3) \_\_\_\_\_  
 5. Deduct amount withhold \_\_\_\_\_

**Figure for works abstract:**

- (a) From previous bill as per last Running Account Bill Rs P }  
 Rs P . 5 }
- (b) From this bill

6. Balance i.e “up-to-date” payment (Items 4-5) \_\_\_\_\_ (K)\* \_\_\_\_\_
7. Total amount of payments already made as per Entry (K) of last Running Account Bill No. \_\_\_\_\_ of \_\_\_\_\_ forwarded with accounts for \_\_\_\_\_ 20 \_\_\_\_\_.
8. Payments now to be made, as detailed below:

- |  |    |
|--|----|
| (a) By recovery of amounts (a) Rs. P   | >8 |
| creditable to this work _____<br>_____   |    |
| Total 5 (b) + 8 (a) .. .. (G)  |    |
| (b) By recovery of amount (b)<br>creditable to other works or head<br>of account _____<br>_____<br>_____ |    |
| (c) <u>By Cheque.</u><br>Total 8 (b)+(c) .. .. (H)   |    |

Pay Rs ++ ( \_\_\_\_\_ )  
\_\_\_\_\_ (by cheque).

Dated initials of disbursing Officer

Received Rs. ++ ( \_\_\_\_\_ )  
\_\_\_\_\_ as per above memorandum on account of this work.  
Dated \_\_\_\_\_ 20

Stamp

**\*\* Witness**

Signature of Contractor

Paid by me, vide cheque no. \_\_\_\_\_ dated \_\_\_\_\_ 20

Dated initials of person actually making the payment.

\* This figure should be tested to see that it agrees with the total of items 7 and 8.

++ If the net amount to be paid is less than Rs. 10 and it cannot be included in a cheque the payment should be made in cash, this entry being altered suitably and the alteration attested by dated initials.

+ Here specify the net amount payable, vide item 8(c)  
+

++ Payees' s acknowledgement should be for the gross amount paid as per item 8 (i.e a+b+c).

\*\* Payment should be attested by some known person when the payee's acknowledgement is given by a mark, seal or thumb impression.

#### **IV. REMARKS**

(This space is reserved for any remarks which the Disbursing officer may wish to record in respect of the execution of the work, check of measurements or the state of contractor's amount).

#### **FOR USE IN ACCOUNTS OFFICE**

Checked.

Manager (F&A)

Senior Manager (F&A)

**RUNNING ACCOUNT BILL**  
**[Reference Section 21.2 (b)]**

( To be used for “intermediate payments” to contractors on lump-sum contracts)

Cash Book Voucher No : dated  
 Name of Contractor :  
 Name of work :  
 Serial No. of the bill :  
 No. and date of this previous Bill for this work :  
 Reference to agreement :  
 Date of written order to Commence work :

**I Account work**

		Rs	P.
1	Approximate value of work done up to date excluding the measured up additions and alterations.		
2	Value of measured up additions and alterations	-----	-----
3	Deduct amount to be withheld		
4	Balance i.e. “up-to-date” intermediate payment (Item 1+2+3)		
5	Deduct intermediate payment already made as per entry “ K” of the last Running Account Bill.	-----	-----
6	Intermediate payment now to be made (Item 4-5) D		
7	Amount of Secured advances as per entry “E” of Account II	-----	-----
8	Total payments now to be made as detailed below: -		
	(a) <u>By recovery of amount creditable to this work G</u>		
	-----		
	(b) <u>By recovery of amounts creditable to other works or heads of account.</u>		
	-----		
	-----		} H
	(c) By Cheque		

**II ACCOUNT OF SECURED ADVANCES ALLOWED (FORM AS PER APPENDIX- )**

**III CERTIFICATES AND SIGNATURES**

I have satisfied myself by\* \_\_\_\_\_ that the value of work done up to date excluding the measured up additions and alternations is not less than Rs. \_\_\_\_\_ conformably with the contractor's agreement and that with the exception of authorized additions and alternations the work has been done according to the prescribed drawings and specification.

2. The detailed measurements of authorized additions and alterations up to date were made by \_\_\_ on \_\_\_\_\_ and are recorded at page \_\_\_\_\_ of Measurement Book No. \_\_\_\_\_.

3. Certified that the plus quantities of materials shown in column 3 of Account II above have actually been brought by the contractor to the site of the work and the contractor has not previously received any advance on their security (2) that those materials are imperishable nature and are all required for use on the work for which a lump sum for finished work has been agreed upon and (3) that a formal agreement signed and executed by the contractor in accordance with paragraph 10.2.24 (a) of the Central P.W.A. Code is recorded in the Accounts Office.

Signature of Contractor \_\_\_\_\_

Date signature of officer \_\_\_\_\_  
preparing the bill

Rank \_\_\_\_\_

---

Pay + (Rs. \_\_\_\_\_ only)

Date signature of officer \_\_\_\_\_  
Authorising the payment

Rank \_\_\_\_\_

---

**IV. ACQUITTANCE**

---

Received ++ (Rs. \_\_\_\_\_ Rupees \_\_\_\_\_) as an intermediate payment in connection with the contract referred to above.

S Witness \_\_\_\_\_

Full Signature of Contractor \_\_\_\_\_

\*Here specify the method employed for estimating the value of work.

+ Here specify the net amount payable; vide Item 8 (c) of Account I.

++ The payee's acknowledgement should be for the gross amount paid as per item 8 (a+b+c) of account. I

\$ Payment should be attested by some known person when the payee's acknowledgement is given by mark, seal or thumb impression.

Paid by me Cash \_\_\_\_\_  
Cheque \_\_\_\_\_ dated \_\_\_\_\_

\_\_\_\_\_  
Dated initials of the person actually \_\_\_\_\_  
Making the payment  
Rank \_\_\_\_\_

---

**V REMARKS**

---

(This space is reserved for any remark which the Disbursing Officer or the Manager (F&A) may wish to record in respect of the execution of the work, check of measurements or the state of contractor's account)

For use in Account Office

Checked

Manager (F&A)

Senior Manager (F&A)

**ACCOUNT OF SECURED ADVANCE**

**[Reference Section 21.2 (b)]**

Division \_\_\_\_\_  
 Sub-division \_\_\_\_\_  
 Name of Contractor \_\_\_\_\_  
 Name of work \_\_\_\_\_  
 Serial No. of the bill to which the  
 Account pertains \_\_\_\_\_  
 Reference to agreement \_\_\_\_\_

Cash Book Voucher no \_\_\_\_\_ dated \_\_\_\_\_

Account of secured advances allowed on the security of materials brought to site

Quantity outstanding from previous bill	Deduct quantity utilized in work measured since previous bill	*Quantity Outstanding (including quantity brought to site since previous bill)	Full rate as assessed by the Divisional officer	Description of materials	Unit	Reduced rate on which advance is made	** Up-to-date amount of advance	Reference to Divisional Officer's written order authorising the advance	Reasons for non clearance of advance when outstanding more than 3 month
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Total amount outstanding as per this account \_\_\_\_\_ (C) \_\_\_\_\_

Deduct amount outstanding as per entry (C) of Annexure to the previous bill \_\_\_\_\_

Net amount since previous bill (in words) Rupees \_\_\_\_\_ (E)

\* Entries relating to each description of materials should be posted thus in column 3. First enter the difference between quantities in Cols. 1& 2 then show below this entry, the quantities.

If any, brought to site against which a further advance has been authorised their entries being prefixed by the plus sign. Finally, strike the total of the two entries which will represent quantity outstanding.

\*\* Entries in column 8 show the money values of the total quantities outstanding as per column 3.

+Certified (1) that the plus quantities of materials shown in column 3 of the Account above have actually been brought by the Contractor to the site of the work and the contractor has not previously received any advance on their security (2) that these material are an imperishable nature and are all required by the Contractor for use on the work in connection with items for which rates for finished work have been agreed upon and (3) that indenture of secured advance has already been executed.

Dated signature of Officer preparing the bill (Rank) \_\_\_\_\_  
++ Dated signature of Officer authorizing Payment (Rank) \_\_\_\_\_

+ These Certificates must be signed by the Sub Divisional or Divisional Officer.

+ This signature is necessary only when officer who prepares the bill is not the officer who authorise the payment in such a case the two signature are essential.



**INDENTURE FOR SECURED ADVANCES****[Reference Section 21.2 (b)]**

( For use in cases in which the contract is for finished work and the contractor has entered into an agreement for the execution of a certain specified quantity of work in a given time.)

This indenture mad the \_\_\_\_\_ day of \_\_\_\_\_20 \_\_\_\_\_ BETWEEN \_\_\_\_\_ (hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his executors, administrators and assigns) of the one part and The Chairman, Airports Authority of India (hereinafter called the Chairman which expression shall where the context so admits or implies be deemed to include his successors in office and assigns) of the other part.

Whereas by an agreement dated \_\_\_\_\_ (hereinafter called the said agreement) the contractor has agreed.

AND WHEREAS the Contractor has applied to the Chairman that he may be allowed advances on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement of use in the construction of such of the works as he has undertaken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges) AND WHEREAS The Chairman has agreed to advance to the Contractor the sum of Rupees \_\_\_\_\_ on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advances attached to the Running Account Bill for the said works signed by the Contractor on and the Chairman has reserved to himself the option of making any further advance or advances on the security of other materials brought by the Contractor to the site of the said work. NOW THIS INDENTURE WITNESSTH that in pursuance of the said agreement and in consideration of the sum of Rupees on or before the execution of these presents paid to the Contractor by the Chairman (the receipt where of the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid the Contractor doth hereby covenant and agree with the Chairman and declare as follows: -

1. That the said sum of Rupees \_\_\_\_\_ so advanced by the Chairman to the Contractor as aforesaid and all or any further sum or sums advices as aforesaid shall be employed by the Contractor in or towards expediting the execution of the said works and or no other purpose whatsoever.
2. That the materials detailed in the said Account of Secured advance which have been offered to and accepted by the Chairman as security are absolutely the Contractor's own property and free from encumbrances of any kind and the Contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnifies the Chairman against all claim to nay materials in respect of which an advance has been made to him as aforesaid.
3. That the materials detailed in the said Account of Secured advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereinafter called the said materials) shall be used by the contractor solely in the execution of the said works in accordance with the directions of the Divisional Officer \_\_\_\_\_ Division (hereinafter called the Divisional Officer) and in the terms of the said agreement.
4. That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and the until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Divisional Officer or any other authorized by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorate in a greater degree than is due to reasonable use and wear thereof the Contractor will forth with

- replace the same with other materials of like quality or repair and make good the same as required by the Divisional Officer.
5. That the said materials shall not on any account be removed from the site of the said works except with the written permission of the Divisional Officer or an officer authorized by him on that behalf.
  6. That the advances shall repayable in full when or before the Contractor receives payment from the Chairman of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of works done than on the occasion of each such payment the Chairman will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials then actually used in the construction and in respects of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.
  7. That if the Contractor shall at any time make any default in the performance of observation in any respect of any of the terms and provisions of the said agreement of these presents the total amount of the advance or advance that may still owing to the Chairman shall immediately on the happening of such default be repayable by the Contractor to the Chairman together with interest thereon at \_\_\_ percent per annum from the date or respective dates of such advance or advance to the date of repayment and with all costs charges damage and expense incurred by the Chairman in or for the recovery thereof or the enforcement of this security or other wise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the Chairman to repay and pay the same respectively to him accordingly.
  8. That the Contractor hereby charges all the said materials with the re payment to the Chairman of the said sum of Rupees \_\_\_\_\_ and any further sum or sums advanced as aforesaid and all costs charges, damages and expense payable under these presents Provided Always and it is hereby agreed and declared that not with standing anything in the said agreement and without prejudice to the powers contained therein if and whenever the covenant for payment and repayment hereinbefore contained shall, become enforceable and the money owing shall not be paid in accordance there with the Chairman may at any time thereafter adopt all or any of following course as he may deem best: -
    - (a) Size and utilize the said materials or any part thereof in the completion of the said works on behalf of the Contractor in accordance with the provision in that behalf contained in the said agreement debiting the Contractor with the actual cost of effecting such completion and the amount due in respect of advances under these presents and crediting the Contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the Contractor he is to pay same to the Chairman on demand.
    - (b) Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the Chairman under these presents and pay over the surplus (if any) to the Contractor.
    - (c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.
  9. The except in the event of such default on the part of the Contractor as aforesaid interest on the said advance shall not be payable.
  10. That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any disputes or difference arising over the construction or effect of these presents the settlement of which has not been hereinbefore expressly provided for the same shall be referred to he Deputy General Manager (Engg) \_\_\_\_\_ Circle whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.

In witness whereof the said \_\_\_\_\_ and \_\_\_\_\_ by the order and under the direction of the Chairman have hereunto set their respective hands the day and year first above written.

Signed, sealed and delivered by \_\_\_\_\_  
the said contractor in the presence of  
Signature \_\_\_\_\_  
Witness Name \_\_\_\_\_  
Address \_\_\_\_\_

Signed by \_\_\_\_\_ by the order and  
direction of the Chairman in the presence of  
Signature \_\_\_\_\_  
For and on behalf of Chairman, Airports  
Authority of India.  
Witness Name \_\_\_\_\_  
Address \_\_\_\_\_

**HAND RECEIPT**  
**[Reference Section 21.2 (c)]**

(To be used as a simple form of voucher for all miscellaneous payments and advances for which none of the special forms are suitable)

Cash Book Voucher No. \_\_\_\_\_ dated \_\_\_\_\_

- Cheque\*
- (1) Pay by Cash\* Rupees \_\_\_\_\_ to \_\_\_\_\_
- (2) Paid by me +

Received from the sub-Divisional Officer in charge of the  
sum of Rs \_\_\_\_\_.

Name of work ++ or purpose for which payment is made: -

(Amount in vernacular)

\_\_\_\_\_  
Stamp

// Witness \_\_\_\_\_

\_\_\_\_\_  
Signature of payee.

\*The officer authorising payment should initial and date the pay order after scoring out the word. 'cheque' or 'cash' as the case may be.

+ The person actually making the payment should initial and date payment certificate (2).

++ In the case of works the accounts of which are kept by sub-head the amount chargeable to each sub-head should be specified by the disbursing officer.

// Payment should be attested by some known person when the payee's acknowledgement given by a mark, seal or thumb impression.

For use in Account Office

Checked

Manager (F&A)

Senior Manager(F&A)

**BILL REGISTER**  
**[Reference Section 22.1]**

DIVISION \_\_\_\_\_

Year \_\_\_\_\_

S. No of bill	Date of receipt	Name of work	Name of contractor / Agency	Amount of the bill	MBs Nos	Date of preparation of bill by AM/M Engg	Date of completion of work if final bill	Date of last payment if running account bill	Signature of receiving clerk in Division	Date on which cheque is drawn	Sing. of SS (F&A)	Date of returns MB	Reference of C.V no. and date	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

**Contractor ledger**  
**[Reference Section 22.2]**

Name of Contractor:

Particulars of bill or voucher			Net transactions detailed by Suspense head			+ Name of Work of Account (in red ink) and particulars of transaction	Gross Transaction		Total value of work of Supplies	Remarks
Date	No	Sl. No. if a running Account bill	“Advance payments” += Debits Credits	“Secured Advances” -= += Debits Credits	“Other transactions” -= += Debits Credits		Debits	Credits		
1	2	3	4D*	5E**	6G*	7	8H*	9F*	10A*	11

Details of Balance

SM/SM(SG) (F&A)

\* These letters indicate in respect of Running Account Bill the corresponding entries in Form at **Appendix -**

\*\* This corresponds to entry in Form at **Appendix -**

+ If there are several contracts in connection with a work or account, the transactions relating to each should be distinguished preferably by quoting the number and date of agreement or work order.

**WORKS ABSTRACT**  
[Reference Section 22.3 ]

Name of work:

Authority:

From What Source Posted	Cash Book Voucher or Transfer Entry Book	SUB-HEADS										SUSPENSE ACCOUNTS											
		(1)					(2)					Material					Contractors						
Brief Particulars	Item No.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.
		Estimate No.																					
Expenditure to end of Month's Transactions																							
Stock																							
Total of month .....																							
Total to end of month.....																							
Progress (up-to-date)																							
Rest of cost...																							

a) Under Manager (F&A) orders a sub-head costing less than Rs. 7500 may be shown distinctly.

Note: Postings made in the Accounts Office should be in black ink and all postings of corrections made in the accounts Office in red ink.  
 \* Entries in this column should be made from column 2(b)-total (D) of the Memorandum of payments of the running accounts Bill.  
 +In this column should be posted the amount shown against total (E) of column 8 of the Accounts of Secured Advances.  
 ++ This column is intended for all miscellaneous debits and credits to contractors awaiting settlements. The debits will usually consist of (1) Advances other than secured Advances. (2) Payments made (under proper authority) to labourers and others on behalf of any by in charge to the account of contractors and (3) Issues of stocks and others materials to contractors. These should be posted as plus entries from the vouchers or accounts as transactions taken place. The credits will ordinarily be on account of amount with held, for future payment from Running Account Bills for work done. Such credit as well as repayments, of amounts, withheld and recoveries of debits (1),(2) and (3) above appear in Running Account Bills as Entry (G) of Memorandum of Payments, which should be posted in this column as a plus entry if minus and vice versa.  
 +++ Unpaid amounts of muster-rolls should be posted in this column as minus entries. Subsequent Payments of these arrears should be shown as plus.  
 // In the case of Running Account Bills for work done the figure in this column should agree with entry (H) in the memorandum of payments.

Details of contractor's CLOSING Balances

Name of Contractor	Reference to last Running Account Bill		Closing Balance						*Explanation of non adjustment
	Voucher No.	Date	Advance Payments		Secured Advances		Other transactions		
			Rs.	P.	Rs.	P.	Rs.	P.	
<b>Total</b>									

The closing balance under the Suspense head "Labourers" as arrived at within has been compared with the connected record of unpaid wages for this work and found correct.

The work is still in progress.+

[Dated Initials of SM/SM(SG) (F&A)]

\* As a rule, reasons for delay should be recorded if an item is not cleared within three months.

+If the work was completed during the month. The fact should be stated with an explanation of the steps taken to close the account of the work.

Certificate by the AM/M(F&A)

This abstract and the Statement of progress have been checked under my supervision. I have personally compared all the items in the "Details of Contractors". Closing Balances with the contractors' Ledger and found them correct.



**REGISTER OF WORKS – FOR MAJOR WORKS**

[Reference Section 22.4 (i)]

Name of work:

Months etc.	Sub-heads (a)														Suspense				Dated initials of Account Officer		
							Sub-heads costing less than Rs. 750000		Contingencies		Materials		Labourers		Advance payment	Other Transactions		Total cost.			
	(1)		(2)				(3)		(4)												
	Qty.	Amount	Qty.	Amount	Qty.	Amount	Qty.	Amount	Qty.	Amount	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.		Rs.	P.
	Rs.	P.		Rs.	P.		Rs.	P.		Rs.	P.		Rs.	P.		Rs.	P.		Rs.	P.	
Estimate No																					
Expenditure of previous year brought forward (if any)																					
April	Total																				
	Rate of cost																				
May	Total																				
	Rate of cost																				
June	Total																				
	Rate of cost																				
July	Total																				
	Rate of cost																				
August	Total																				
	Rate of cost																				
September	Total																				
	Rate of cost																				
October	Total																				
	Rate of cost																				
November	Total																				
	Rate of cost																				

Months etc.	Sub-heads (a)												Suspense						Dated initials of Account Officer	
					Sub-heads costing less than Rs. 750000		Contingencies		Materials		Labourers		Advance payment		Other Transactions		Total cost.			
	(1)		(2)		(3)		(4)													
	Qty.	Amount	Qty.	Amount	Qty.	Amount	Qty.	Amount												
	Rs.	P.		Rs.	P.		Rs.	P.		Rs.	P.		Rs.	P.		Rs.	P.		Rs.	P.
December	Total																			
	Rate of cost																			
January 19	Total																			
	Rate of cost																			
February	Total																			
	Rate of cost																			
March	Total																			
	Rate of cost																			
Supplementary Accounts	Total																			
	Rate of cost																			

Under Accounts Officers orders a sub-head costing less than Rs. 7,500 may be shown distinctly.

**REGISTER OF MATERIAL AT SITE ACCOUNTS**  
**[Reference Section 22.5.3]**

1. Name of work \_\_\_\_\_ issue Rate \_\_\_\_\_

2. Name of Article \_\_\_\_\_

S.No	Date of Receipt / Issues	Received from / Issued to	Receipts	Issue	Bal- ance	Sign. of <u>SA/SS/JrEx</u> <u>AM/M</u>	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

**Comments**

This form is meant for materials at site accounts. The materials issued direct to the work should be brought on account.

In case of materials received direct from suppliers full details of the articles received should at the same time be entered in measurement book.



**REGISTER OF DISMANTLED MATERIALS**  
**[Reference Para 22.7 (i)]**

1. Name of work

2. Name of Division

S N	Date of rece- ipt	Refere nce to MB number of and page	Full particul ars of material s giving size etc.	Ope- ning bala- nce	Qty. rece- ived	Tot al	Refer- ence to its disposa l	Qty. issued or dispose of	Closin g balanc e	Dated initials of SA/SS/J rEx	Date and remarks of verificatio n of balance by AM/M	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13

**CASH BOOK**  
**[Reference Section 22.8]**

\_\_\_\_\_ Division, Cash Book of \_\_\_\_\_ for the month of \_\_\_\_\_ 20

Receipt Side					Payment Side									
Date of receipt	No. of voucher or Receipt	From whom received etc.	Amount (Cash)		Classification of Receipts	Date of Payment	No. of vouchers	To whom paid	Cash		Bank or Treasury		Payments	Classification
			Rs.	P					No. of cheque (with no. of cheque Book)	Amount	Rs.	P		
1	2	3	4	5	6	7	8	9	10	11	12			
			Rs.	P				Rs.	P			Rs.	P	

Period \_\_\_\_\_ to

\_\_\_\_\_

Total...

---

**Form of Work Order**  
**[Reference Section 23.2.5 (B)]**

Airports Authority of India  
O/o \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

No. \_\_\_\_\_

Dt. \_\_\_\_\_

To,  
\_\_\_\_\_  
\_\_\_\_\_

Sub: Work Order for \_\_\_\_\_  
\_\_\_\_\_

Dear Sir,

1. Reference your quotation for the above work opened on \_\_\_\_\_
2. On behalf of the Chairman, Airports Authority of India, I hereby accept your quotation for the work mentioned above at the \_\_\_\_\_ rates quoted by you, for the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only).
3. You are directed to start the work at once as per Schedule-A attached. The work shall be executed as per terms and conditions mentioned in succeeding paragraphs.
4. Period of completion of the work is \_\_\_\_\_ which shall be reckoned from the date of placing the work order. If you fail to complete the work within the stipulated period and no justifiable reasons are found for the delay, you should be liable to pay the compensation for delay at the rate of one percent of the total value of work order per week of delay subject to a maximum, of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only). The amount of compensation for delay or waiver of compensation for delay in case of justified reasons shall be decided at the discretion of \_\_\_\_\_ and same shall be final and binding on you.

(Signature of Contractor)

\_\_\_\_\_ Engineer

5. The work shall be executed as per CPWD specification \_\_\_\_\_ with upto date correction slip and shall be approved in stages by the SM/SM(SG) Engg of \_\_\_\_\_ who will be Engineer-In-Charge for this job. Materials not approved by the Engineer-In-Charge shall not be used in executing the work.
6. The quantity shown in Schedule-A may vary during actual execution of work. You shall carry out the work as per actual site requirement. Increase in quantity of item or items of work shall be executed by you at the quoted rates upto a limit so that the total increase does not exceed more than \_\_\_\_\_ of the work ordered value.
7. On completion of work, each item of work shall be jointly measured by you or your authorized representative and the Engineer-In-Charge or his representative, and the entered into the measurement book. All debris, unused materials, painting stains on walls or floors, etc. developed at site during the course of execution of work shall be removed and the area shall be left clean by you as directed by the Engineer-In-Charge without any extra cost.
8. You will be allowed running payments once in a month for which interim / running bills shall be submitted by you the Engineer-In-Charge. Ten percent of total value of work done shall be deducted as security deposit from each running bill.
9. On satisfactory completion of work, final bills shall be submitted by you the Engineer-In-Charge and same shall be progressed with following documents:-
  - a) Your final bill
  - b) Measurement book jointly signed by you and Engineer-In-Charge or his representative.
  - c) Completion certificate issued by Engineer-In-Charge.
  - d) Other relevant documents, if any.
10. You should be responsible to make good and remedy at your own expense of any defect which may develop or may be noticed within the defects liability period which shall be reckoned as \_\_\_\_\_ months from the certified date of completion. The security deposit shall be refunded only after expiry of defects liability period.
11. This work order is allotted the number \_\_\_\_\_ which shall be quoted by you for all future correspondence in connection with this work order.

Yours Faithfully,

\_\_\_\_\_ Engg  
(Accepting Officer)

(Signature of Contractor)

- |    |    |
|----|----|
| 1. | 3. |
| 2. | 4. |



**COMPARISON OF TENDERS ON RECALL**  
**[Reference Para No. 26.5.3]**

Name of work :

Date of 1<sup>st</sup> Call :

Date of 2<sup>nd</sup> Call :

S. N.	Item No.	Unit	Qty	Estimated		Justified		Lowest tender of 1 <sup>st</sup> Call		Lowest tender of 2 <sup>nd</sup> Call		Remarks
				Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount	
1	2	3	4	5	6	7	8	9	10	11	12	13

Total

Reasons for difference in cost of 1<sup>st</sup> call and second /subsequent call :-

Asstt. Manager/Manager Engg

AM/Manager (Finance)

Accepting Authority

**GUARANTEE BOND**

**[Reference Para 27.4.3]**

This agreement made this ----- day of ----- Two thousand and ----- between M/s ----  
----- [hereafter called the Guarantor] of the  
one part and the Chairman, Airports Authority of India [hereinafter called the Authority] of the other  
part.

Whereas this agreement is supplementary to the contract (thereinafter called the contract) dated -----  
----- made between the GUARANTOR of the one part and Authority of the other part whereby the  
contractor inter-alia undertook to render the buildings and structures in the said contract recited  
completely Termite proof /water & leak proof.

And whereas the GUARANTOR agreed to give a guarantee to the effect that the said structure will  
remain Termite-proof/Water and leak proof for 10 years to be reckoned from the date after the  
maintenance period prescribed in contract expires.

During this period of guarantee the guarantor shall make good all defects and for that matter, shall  
replace at his risk and cost such wooden members etc. as may be damaged by termites and in case of  
any other defect being found he shall render the building termite proof/water and leak proof at his cost  
to the satisfaction of the Engineer-in-charge and shall commence the works of such rectification within  
7 days from date of issuing notice from the Engineer-in-charge calling upon him to rectify the defects  
failing which the work shall be got done by the Department by some other contractor at the  
GUARANTOR'S cost and risk and in the latter case the decision of the Engineer-in-charge as to the  
cost recoverable from the Guarantor should be final and binding.

That, if the Guarantor fails to execute the Anti-Termite treatment/Water Proofing Treatment or commits  
breaches hereunder, then the Guarantor will indemnify Authority and his successors against all loss,  
damage, cost, expense, or otherwise which may be incurred by him by reason of any, default on the part  
of the GUARANTOR in performance and observance of this supplemental agreement. As to the amount  
of loss and/or damage and/or cost incurred by the Authority the decision of the Engineer-in-charge will  
be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the obligator -----  
----- and by ----- for and behalf of the  
Airports Authority of India on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGATOR in the presence of: -

- 1.
- 2.

SIGNED for and on behalf of THE AIRPORTS AUTHORITY OF INDIA by ----- in  
the presence of: -

1.

2.

CONTRACTOR

SENIOR MANAGER ENGINEER [CIVIL]

**Proforma of Tender Opening Register**  
**[Reference to Para no. 28.4.1.1]**

1. Name of work
2. A/A&E/S No. Date and Amount
3. T/S no. Date and Amount
4. Estimated Cost put to Tender
5. Nos. of application received
6. Nos. of application rejected
7. Nos. of tender sold and issued

SN	Date of Opening	Name of Tenderer	Percentage above of below quoted in case of percentage rate tender	Total amount quoted in case of item rate tender or lump-sum tender	Earnest Money		Signature of representative of the tenderer	Remarks
					Amount deposited	Details of FD/ Demand Draft etc.		
1	2	3	4	5	6	7	8	9

Certified that out of \_\_\_\_\_ tenders issued, only \_\_\_\_\_ tenders as mentioned above and no other are received at 15:00 hrs. on \_\_\_\_\_ and opened today at 15:30 hrs. and that no departure from authorized procedures have occurred in the manner of receipt and opening of above tenders.

1. Signature with date of officer  
opening tender  
Name  
Designation

2. Signature with date of officer  
opening tender  
Name  
Designation

**TIME SCHEDULE FOR SCRUTINY OF TENDERS  
[Reference Para 28.4.18.2]**

Classification of tenders	Asstt Mgr /Manager	SM/SM(SG) Engg	DGM / JGM	GM / ED	WAB
Tenders within the powers of AM/Mgr Engg to award	7 days	----	----	----	----
Tenders within the powers of SM/SM(SG)Engg to award	----	7 days	----	----	----
Tenders requiring orders of authority higher than SM/SM(SG)Engg	----				
a) Scrutiny & disposal		9 days	07 days	10 days	10 days
b) Disposal by SM/SM(SG)Engg after receipt of orders from higher authority		03 days			
<p><b>NOTE:</b> The time schedule given above relates to tenders other than lump-sum tenders. For the later type of tenders, two days more may be allowed at each stage, except for serial-3 [b].</p>					

**MEMO FORWARDING TENDERS TO  
HIGHER AUTHORITIES  
[Reference Section 28.4.19.5]**

1. Name of work : \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
  
2. Ref. to Admn. Approval & Expenditure  
Sanction
  - (i) No. & Date : \_\_\_\_\_
  - (ii) Amount : \_\_\_\_\_
  - (iii) Proportionate amount available for the work included in the present tender : \_\_\_\_\_
  
3. Ref. to Tech. Sanction:
  - (i) No. & Date : \_\_\_\_\_
  - (ii) Amount : \_\_\_\_\_
  
4. Scope of work for which tenders have been called for. Clearly indicating the items omitted from the sanction estimate : \_\_\_\_\_
  
5. Ref. to Approval of NIT.
  - (i) Authority : \_\_\_\_\_
  - (ii) No. & Date : \_\_\_\_\_
  - (iii) Est. Amt. put to tender : \_\_\_\_\_
  
6. Ref. to Publicity : \_\_\_\_\_
  - (i) Date on which notice inviting tender was placed on notice board : \_\_\_\_\_
  - (ii) Date on which it was circulated to other offices : \_\_\_\_\_
  - (iii) Name of Newspapers (With dates) in which the Notice Inviting tender was : \_\_\_\_\_

actually advertised.

7(i) The date and time at which tenders were due to be received : \_\_\_\_\_

(ii) Postponed Date and time, if any : \_\_\_\_\_

(iii) Reasons for postponement : \_\_\_\_\_

(iv) Reference to publicity in regard to postponement of tenders : \_\_\_\_\_

8. The date from which tenders were available for sale to contractors : \_\_\_\_\_

9. Particulars of contractors to whom tenders Were sold quoting authority for issue of Tenders to contractors not eligible to tender:

Name of contractor	Class in which registered	Department in which enlisted	Date of issue of tenders	Remarks
1	2	3	4	5

(i)

(ii)

(iii)

(iv)

(v)

...

10. Opening of tenders

(i) Date and time at which tenders were due to opened : \_\_\_\_\_

(ii) (a) Date and time at which tenders were actually opened : \_\_\_\_\_

(b) Name & Designation of officers who actually opened the tenders : \_\_\_\_\_

(iii) Names of contractors present at the time of opening of tenders : \_\_\_\_\_

(iv) Name and designation of any other person present : \_\_\_\_\_

(v) Have all the contractors deposited E.M. : \_\_\_\_\_

11. Positions of tenders received

Name of contractor	Tender amount/ Percentage above or below	Net tendered amount or %age after taking into consideration the financial effect of conditions
1	2	3

12. (i) Justified percentage as worked out by:

- (a) SM/SM(SG) Engg : \_\_\_\_\_
- (b) DGM/JGM/GM Engg : \_\_\_\_\_

13. Date of which validity of tenders expires : \_\_\_\_\_

14. Remarks and recommendations of the Senior manager (Engg):

(i) Availability of site : \_\_\_\_\_

(ii) Availability of stipulated materials : \_\_\_\_\_

(iii) Approval to layout plans : \_\_\_\_\_

(iv) Approval to buildings, plans, clearance from local body : \_\_\_\_\_

(v) Comments on the capabilities of three lowest tenders including their financial and technical resources : \_\_\_\_\_

(vi) List of works in hand with three lowest tenders indicating the name of work, tendered amount, date of start, stipulated period, progress made and remarks : \_\_\_\_\_

(vii) Is this the first call of tenders? If not, details of previous calls & results : \_\_\_\_\_

(viii) Justification : \_\_\_\_\_

(ix) Comments on the tender : \_\_\_\_\_

(x) Recommendation of the SM/SM(SG) Engg : \_\_\_\_\_

SM/SM(SG) Engg



**STANDARD AWARD LETTER FORM**  
**[Reference Section 28.5.4]**

No. \_\_\_\_\_

Dt: \_\_\_\_\_

To,

\_\_\_\_\_

\_\_\_\_\_

Sub: (Correct name of work as entered in tender document).

Ref: 1) Your Tender dated \_\_\_\_\_

2) Your letter No. \_\_\_\_\_ dated \_\_\_\_\_

Dear Sir(s),

1. Your tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates/percentage rate quoted by you (alongwith the negotiated rates for items nos. -----) totaling to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) which is \_\_\_\_\_ % above the estimated cost put to tender of Rs. \_\_\_\_\_ lacs.
2. SM/SM(SG) Engg, AAI, \_\_\_\_\_ Airport, \_\_\_\_\_, shall be the Engineer – in – charge of the work. You are requested to attend the office of \_\_\_\_\_ SM/SM(SG) Engg, AAI, \_\_\_\_\_ by \_\_\_\_\_ to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs. \_\_\_\_\_ - (Rupees \_\_\_\_\_ only) and the cost of the stamp paper shall be borne by you.
3. The earnest money amount of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) received along with your tender will be treated and converted as part of Security Deposit as per condition of clause no. \_\_\_\_\_ on page \_\_\_\_\_ of contract document. Please deposit Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) towards Security Deposit within 10 days from the date of issue of this letter, failing which , the same will be deducted as per condition of Clause \_\_\_\_\_ on page \_\_\_\_\_ of the contract document.
4. Within 30 days of signing the agreement, you shall submit to AAI, a performance Guarantee as per condition of clause \_\_\_\_\_ on page \_\_\_\_\_ for an amount of Rs \_\_\_\_\_ (Rupees \_\_\_\_\_ only) in the form of Bank Guarantee on the proforma appended at Annexure – on \_\_\_\_\_ of Contract Document.( If it is applicable).
5. You are requested to comply with the provision of Contract Labour (Regulation and Abolition) Act 1970 and Contract Labour (Regulation and Abolition) Central rules 1971 and minimum wages act and rules thereof Central and State Governments.
6. You are also directed to contact SM/SM(SG) Engg, immediately who will arrange to hand over the site to you.

7. Please note that the time allowed for carrying out the work shall be \_\_\_(\_\_\_\_) months and same shall be reckoned from the 10th day after issue of this letter.
8. Any further correspondence in connection with the contract should normally be addressed to the Engineer – in –charge.
9. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

Yours faithfully,

**SM/SM(SG) Engg**  
**For and on behalf of the Chairman,**  
**Airports Authority of India.**

Copy to:

1. RED, AAI, \_\_\_\_\_ Region .
2. GM (Engg), AAI, \_\_\_\_\_ Region.
3. GM (F&A), AAI, \_\_\_\_\_ Region
4. DGM Engg (C), AAI, \_\_\_\_\_ Region.
5. DGM Engg (E), AAI, \_\_\_\_\_ Region
6. S.M. (Aero), AAI, \_\_\_\_\_ Region.
7. S.M. Engg (C), AAI, \_\_\_\_\_ Region..... comparative statement of tenders received are also enclosed.
8. Labour Commissioner, \_\_\_\_\_.
9. Regional Provident Fund Commissioner, \_\_\_\_\_.

Internal :

1. Executive Director (Engg.), AAI, CHQ.
2. Executive Director (F & A), AAI, CHQ.
3. Executive Director (Plg), AAI, CHQ.
4. Executive Director (PMQA), Operational Office, Gurgaon Road, New Delhi.
5. Executive Director (CNS-Plg), AAI, CHQ.
6. General Manager, Engg (Elect.) AAI, CHQ.

**SM/SM(SG)/Asst. G.M. Engg**

**FORM OF BANK GUARANTEE AGAINST EARNEST MONEY DEPOSIT**  
**[Refer Para no. 29.4.1]**

To

The Airports Authority India

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sir,

You have issue tender document for the work “\_\_\_\_\_”  
to M/s\_\_\_\_\_ (hereinafter called “Bidder”). Under the terms and conditions of said tender  
dated \_\_\_\_\_ the bidder was required and undertook to furnish a bank guarantee of Rs. \_\_\_\_\_  
(Rupees \_\_\_\_\_ only) as Earnest Money Deposit as contained in said tender document and we  
have agreed to give such Bank Guarantee.

We \_\_\_\_\_(Name of Bank)\_\_\_\_\_, which is a schedule bank, hereby unconditionally  
and irrevocably undertake to Airports Authority of India having its head office at Rajiv Gandhi  
Bhawan, Safdarjung Airport, New Delhi – 110 003 (hereinafter called the “AAI” which expression shall  
unless repugnant to the subject or contract include its administration, successors and assigns)  
immediately on the day and time of demand without any demur such amount or amounts as any be  
demanded by you from us under this guarantee not exceeding a sum of Rs. \_\_\_\_\_ (Rupees  
\_\_\_\_\_ only) in aggregate without any further question or reference to  
M/S. \_\_\_\_\_ and your demand shall be final and conclusive.

We hereby affirm that we are the Guarantor and responsible to you, on behalf of the bidder upto a total  
Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) such sum being payable in the types and proportions  
of currencies in which contract price is payable and we undertake to pay, upon your first written  
demand and without any demur and/or condition, any of sum within the limits of Rs. \_\_\_\_\_ (Rupees  
\_\_\_\_\_ only). We further agree that no change or addition to or their modification of the terms of  
the tender or of the works to be performed there under or of any of the tender documents which may be  
made between you and the bidder shall in any way release us form any liability under this Guarantee,  
and we hereby waive notice of any such change, addition or modification.

This Guarantee is confirmed and irrevocable and shall remain valid until the date \_\_\_\_\_ i.e. 180  
days from the closing date of submission of tender and shall remain valid upto the such extended period  
which may be mutually agreed to.

Unless a demand or claim under this Guarantee is made on us in writing on or before \_\_\_\_\_ we  
should be discharged from all liability under its guarantee.

SIGNATURE AND SEAL OF THE GUARANTOR  
NAME OF BANK  
ADDRESS  
DATE

**FOR EMD**

**To**

**THE CHAIRMAN,  
AIRPORTS AUTHORITY OF INDIA  
RAJIV GANDHI BHWAN,  
SAFDARJUNG AIRPORT  
NEW DELHI – 110003.**

Dear Sir,

We (full name of the banker) hereby refer to the tender for (Fill in the name of work) between the Airports Authority of India as purchaser and M/s. (fill in the name of firm) as tenderer providing in substance for the work “-----”. Particularized in said tender, to which specific reference is made. Under the terms of said tender, the tenderer is required to provide a bank guarantee in a form acceptable to the purchaser for the amount of US \$ \_\_\_\_\_ on account of EMD.

In view of the foregoing and pursuant to the terms of the said tender, which tender is referred to and made a part thereof as fully and to the same extent as if copied at length hereon, we hereby absolutely and unconditionally guarantee to the purchaser, performance of the terms and conditions of the said tender. The guarantee shall be construed as an absolute, unconditional and direct guarantee of the performance of the tender without regard to the validity, regularity or enforceability of any obligation of the parties to the tender.

The purchaser shall be entitled to enforce this guarantee without being obliged to resort initially to any other security or to any other remedy to enforce any of the obligations herein guaranteed any may pursue any or all of its remedies at one or at different times. Upon default of the tender, we agree to pay to the purchaser on demand and without demur the sum of US \$ \_\_\_\_\_ or any part thereof, upon presentation of a written statement by the purchaser that the amount of said demand represents damages due from the tenderer to the purchaser by virtue of breach of performance by the tender under the terms of the aforesaid tender. The determination of the fact of breach and the amount of damages sustained and or liability under the guarantee shall be in the sole discretion of the purchaser whose decision should be conclusive and binding on the guarantor.

It is mutually agreed that the purchaser shall have the fullest liberty without affecting in any manner our obligation hereunder with or without our consent to vary any of the terms of the said tender or to extend the time for performance by the tenderer, from time to time any of the powers exercisable by the purchaser against the tender and either to forebear or on force any of the terms and conditions relating to the said tender and we shall not be relieved from our liability by reasons of any variation of any extension being granted to the tender or for any forbearance act or commission on the part of the purchaser or any indulgence by the purchaser to the tenderer or by any such matter or thing whatsoever which under the law relating to the sureties would but for this provision have effect of so relieving our obligation.

This guarantee is confirmed and irrevocable and shall remain in effect until \_\_\_\_\_ (the **validity should be 180 days from the date of opening of technical bid**) and such extended periods, which may be mutually agreed to. We hereby expressly waive notice to any said extension of the time for performance and alternation or change in any of the terms and conditions of the said tender.

Very truly yours,

(Letter of understanding from the Depositor to Bank to be submitted along with EMD to Airports Authority of India)

The Branch Manager,

..... Bank,

.....

Sub: My / Our Bank Guarantee bearing No..... dated for ..... amount .....  
issued in favour of Airports Authority of India A/c .....

Sir,

The subject Bank Guarantee is obtained from your branch for the purpose of security / Earnest Money on account of contract awarded/to be awarded by M/s AAI to me/us.

I hereby authorize the Airports Authority of India in whose favour the deposit is made to close the subject Bank Guarantee before maturity / on maturity towards adjustment of dues without any reference /consent/notice from me our side and the bank is fully discharged by making the payment to Airports Authority of India.

Signature of the Depositor

Place :

Date:

**To**

**THE CHAIRMAN,  
AIRPORTS AUTHORITY OF INDIA  
RAJIV GANDHI BHWAN,  
SAFDARJUNG AIRPORT  
NEW DELHI – 110003.**

BID BOND	DATE	BOND	EXECUTED
----------	------	------	----------

Principal

Surety

SUM OF BOND EXPRESS-IN WORD AND FIGURES	DATE OF BID
---	-------------

CONTRACT NUMBER / AWARD LETTER:

Know all men by these presents, that we, the principal and surety above named are held firmly bound to the Chairman, Airports Authority of India, hereinafter, called the chairman in the sum stated above, for the payment of which sum well and truly to be made, we unconditionally bind ourselves, our heirs executors administrators, and successors jointly and severally, firmly by these presents. The condition of this obligation is such, that where as the principal has submitted the accompanying bid date as shown above, now, therefore, if the principal shall not withdraw the said bid within the period specified therein or any extension thereof after opening of the same, or if such period be specified, within one hundred and eighty days after said opening and shall within the period, specifies therefore or if no period specified are presented to him for signature, executed such further contractual documents, if any, as may be required by the terms of the bid as accepted, and given bonds with good and sufficient surety or sureties, as may be required for the faithfully performance and proper fulfillment of the resulting contract, and for the protection of all persons supplying labour and material in the execution of the work provided for in such contract, or in the event of the withdrawal of the said bid within the period specified or the failure to enter into such contract and give such bonds within the time specified, the principal shall pay to the Chairman, the differences between the amount specified in said bid and the amount for which the Chairman may procure the required work, supply and services obligation should be void and of no effect, otherwise shall remain in full force and virtue.

The bid bond is valid from \_\_\_\_\_ until \_\_\_\_\_. IN WITNESS WHERE OF, the above bounded parties have executed this instrument under their several seals on the date indicated above, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing bodies.

Our liability under this guarantee is restricted up to a sum of US\$ \_\_\_\_\_ and shall expire on \_\_\_\_\_ unless a demand or claim under this guarantee is received by us in writing on or before \_\_\_\_\_, all your rights under this guarantee shall be forfeited and we shall stand relieved and discharged from all liabilities there under.

This instrument should be returned to us upon its expiry or settlement of claim(s), if any, there under, whichever is earlier.

(SIGNATURE AND SEAL OF PRINCIPALS)

IN WITNESS OF



**To**

**THE CHAIRMAN,  
AIRPORTS AUTHORITY OF INDIA  
RAJIV GANDHI BHWAN,  
SAFDARJUNG AIRPORT  
NEW DELHI – 110003.**

BID BOND	DATE	BOND	EXECUTED
----------	------	------	----------

Principal

Surety

SUM OF BOND EXPRESS-IN WORD AND FIGURES	DATE OF BID
---	-------------

CONTRACT NUMBER / AWARD LETTER:

Know all men by these presents, that we, (FULL NAME AND ADDRESS OF SURETY) (herein after referred to as Surety) are held firmly bound to the Chairman, Airports Authority of India, (hereinafter, called the Chairman) in the sum stated above, for the payment of which sum well and truly to be made, we unconditionally bind ourselves, our heirs executors administrators, and successors jointly and severally, firmly by these presents. The condition of this obligation is such, that where as the principal has submitted the accompanying bid date as shown above, now, therefore, if the principal shall not withdraw the said bid within the period specified therein or any extension thereof after opening of the same, or if such period be specified, within one hundred and eighty days after said opening and shall within the period, specified therefore or if no period specified are presented to him for signature, executed such further contractual documents, if any, as may be required by the terms of the bid as accepted, and given bonds with good and sufficient surety or sureties, as may be required for the faithfully performance and proper fulfillment of the resulting contract, and for the protection of all persons supplying labour and material in the execution of the work provided for in such contract, or in the event of the withdrawal of the said bid within the period specified or the failure to enter into such contract and give such bonds within the time specified, the principal shall pay to the Chairman, the differences between the amount specified in said bid and the amount for which the Chairman may procure the required work, supply and services obligation should be void and of no effect, otherwise shall remain in full force and virtue.

IN WITNESS WHERE OF, the above, we have executed this instrument under our seal on the date indicated above.

Notwithstanding anything contained herein above our liability under this guarantee is restricted up to a sum of US\$ \_\_\_\_\_ payable in equivalent in Indian Rupees and shall expire on \_\_\_\_\_ unless a demand or claim under this guarantee is received by us in writing on or before \_\_\_\_\_, all your rights under this guarantee shall be forfeited and we shall stand relieved and discharged from all liabilities there under.

This instrument should be returned to us upon its expiry or settlement of claim(s), if any, there under, whichever is earlier.

(SIGNATURE AND SEAL OF SURETY)

(Letter of understanding from the Depositor to Bank to be submitted along with Bid Bond to Airports Authority of India)

The Branch Manager,

..... Bank,

.....

Sub: My / Our Bank Guarantee bearing No..... dated for ..... amount ..... issued in favour of Airports Authority of India A/c .....

Sir,

The subject Bank Guarantee is obtained from your branch for the purpose of security / Earnest Money on account of contract awarded/to be awarded by M/s AAI to me/us.

I hereby authorize the Airports Authority of India in whose favour the deposit is made to close the subject Bank Guarantee before maturity / on maturity towards adjustment of dues without any reference /consent/notice from me our side and the bank is fully discharged by making the payment to Airports Authority of India.

Signature of the Depositor

Place :

Date:

## **INSTRUCTIONS FOR COMPLETION OF BID-BOND**

1. This form shall be used for construction work or the furnishing of supplies or services whenever a bid bond is required. There shall be no deviation from except as authorised by the Airports Authority of India.
2. The name including full Christian name and business or residence address of each individual party to the bond should be inserted in the space provided therefore and each of such party shall sign the bond with his usual signatures on the line opposite the serial scale, and adhesive seal shall be affixed opposite the signature.
3. If the principals are partners, their individual names shall appear in the space provided thereof with the receipt that they are partners composing a firm, naming it, and all the members of the firm shall execute the bond as individuals.
4. If the principal or surety is a corporation, the name of the state in which incorporated shall be inserted in the space provided in there form and said instrument shall be executed and attested under the corporate/seal as indicated in the form. If the corporation has no corporate seal the fact shall be stated in which case a scrolled adhesive seal shall appear following the corporation name.
5. The official character and authority of the person or persons executing the bond for the Principal of a corporation, shall be certified by the secretary or Astd. Secretary; according to the form herein provided. In lieu of such certificate there may be attached to the bond copies of such of the records of the corporation as will show the official character and authority of the officer signing duly certified by the secretary or Assistant secretary under the corporate seal to the true copies.
6. The date of this bond must not be of the date of the instrument in connection with which it is given.

**PROCEDURE OF MAINTAINING BANK GUARANTEES****[Reference Para No. 29.6.2]**

Against civil and electrical work contracts bank guarantees are generally accepted from the contractors in lieu of security deposit, mobilization advance, performance bond/guarantee, earnest money (bid bond) etc. These bank guarantees are to be issued by the scheduled banks but not any co-operative bank/gramin Bank.

Bank guarantee to be submitted by the contractor at the first instance should be valid for the period stipulated in contract. Generally same is till the expiry of warrantee period and stipulated in the contract.

In case due to any reason validity of bank guarantee is required to be got extended notice for the same should be given to the contractor well in advance at least a month before its expiry with a copy to the bankers who have issued the said guarantee with a request that in case contractor does not approach for extension before its expiry same should be encashed and amount in full paid to AAI. Engineer-in-charge is to ensure that letter of contractor as well as bank are positively delivered and acknowledge obtained and kept in record.

In case of positive confirmation about extension of bank guarantee, inspite of action as per above is nor received at least 03 working days before its actual expiry, another letter should be delivered to the bank specifically asking for encashment of bank guarantee and payment of amount to the AAI.

The bank guarantee are important legal documents in term of agreement therefore the agreement signing authority responsible for safe custody of this bank guarantee of as well as maintenance of subsidiary records. In order to have a counter check on bank guarantee a parallel record should also be maintained by F&A department and agreement signing department should review the performance guarantee/bank guarantee periodically and take necessary preventive action in advance.

Concerned SM/SM(SG)/Asstt.GM Engg should maintained proper register incorporating there in details of the bank guarantees submitted by contractors agreement wise. Every months and this register should personally checked by SM/SM(SG)/Asstt. GM Engg to ensure that validities of the bank guarantees are not expired two month before the expiry date of validity period of each bank guarantee concerned SM/SM(SG)/Asstt. GM should ensure to get validity period extended for further period to cover the actual maintenance period in case of security deposit or to the date of total recovery of principle amount and thereof in case of mobilization advances. This action should be coordinated with the concerned Account Unit in time.

**REGISTER OF BANK GUARANTEES**

S.No	Name of work	Name of contractor	of Agmt. No.	Details of bank guaran-tees with amt. etc.	Valid upto	Extended upto	Remarks about final disposal
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

**FORM OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT IN INDIVIDUAL  
CONTRACT**

(On Non-Judicial Stamp Paper)

**[Reference para 30.3.1]**

To  
The Airports Authority India

1. In consideration of the Airports Authority India having its head office at New Delhi (hereinafter called the “AAI” which expression shall unless repugnant to the subject or context include its administrators, successors and assigns) having agreed under the terms and conditions of Contract Agreement No. \_\_\_\_\_ dated \_\_\_\_\_ made between \_\_\_\_\_ and AAI in connection with the work of \_\_\_\_\_ (hereinafter called the said contract), to accept Deed of Guarantee as herein provided’ for Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) in lieu of the Security deposit to be made by the contractor or in lieu of the deduction to be made from the contractor’s bills, for the due fulfillment by the said Contractor of the term and conditions contained in the said Contract. We, the \_\_\_\_\_ bank (hereinafter referred to as “the said Bank” and having our registered office at \_\_\_\_\_ do hereby undertake and agree to indemnify and keep indemnified AAI from time to time to the extent of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) against any loss or damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI by reason of any breach or breaches by the said Contractor of any of the terms and conditions contained in the said contract and to unconditionally pay the amount claimed by AAI on demand and without demur to the extent aforesaid.
2. We, the \_\_\_\_\_ Bank, further agree that AAI shall be the sole judge of and as to whether the said Contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI on account thereof and the decision of AAI that the said Contractor has committed such breach or breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by AAI from time to time shall be final and binding on us.
3. We, the said Bank, further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contracts and till all the dues of AAI under the said Contract or by virtue of any of the terms and conditions governing the said Contract have been fully paid and its claims satisfied or discharged and till the Accepting Authority of the contract certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said Contractor and accordingly discharges this guarantee subject, however that AAI shall have no claim under this Guarantee after 90 (Ninety) days from the date of expiry of the Defects Liability Period as provided in the said Contract, i.e., \_\_\_\_\_ (date) or from the date of cancellation of the said Contract, as the case may be, unless a notice of the claim under this Guarantee has been served on the Bank before the expiry of the said period in which case the same shall be enforceable against the Bank notwithstanding the fact, that the same is enforced after the expiry of the said period.
4. AAI shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee or Indemnity from time to time to vary any of the terms and conditions of the

said contract or to extend time of performance by the said Contractor or to postpone for any time and from time to time any of the powers exercisable by it against the said Contractor and either to enforce or forbear from enforcing any of terms and conditions governing the said Contract or securities available to AAI and the said Bank shall not be released from its liability under these presents by any exercise by AAI of any liberty with reference to the matters aforesaid or by reason of time being given to the said Contractor or any other forbearance, act or omission on the part of AAI or any indulgence by AAI to the said Contractor or any other matter or thing whatsoever which under the law relating to sureties would but for this provisions have the effect of so releasing the Bank from its such liability.

5. It shall not be necessary for AAI to proceed against the Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank, notwithstanding any security which AAI may have obtained or obtain from the Contractor at the time when proceedings are taken against the Bank hereunder be outstanding or unrealised.
6. We, the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of AAI in writing and agree that any change in the Constitution of the said Contractor or the said Bank shall not discharge our liability hereunder.

In presence of:

Dated this \_\_\_\_ Day of \_\_\_\_\_

WITNESS

1.

For and on behalf of (The Bank)

2.

Signature \_\_\_\_\_

Name & Designation \_\_\_\_\_

Authorisation No. \_\_\_\_\_

Name & Place \_\_\_\_\_

Bank's Seal \_\_\_\_\_

The above Guarantee is accepted by Airports Authority of India.

For and on behalf of Airports Authority of India.

Signature \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

Dated \_\_\_\_\_

Note:

**\*For Proprietary Concerns**

Shri \_\_\_\_\_ son of' \_\_\_\_\_ resident of \_\_\_\_\_ carrying on business under the name and style of \_\_\_\_\_ at \_\_\_\_\_ (hereinafter called "the said Contractor" which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives).

**For Partnership Concerns**

1. Shri \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_

2. Shri \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_  
carrying on business in co-partnership under the name and style of \_\_\_\_\_ at \_\_\_\_\_  
(hereinafter collectively called “the said contractor” which expression shall unless the context requires otherwise include each of them and their respective heirs, executors administrators and legal representatives).

**For Companies**

M/s \_\_\_\_\_ a Company registered under the Companies Act, 1956 and having its  
registered office in the State of (Hereinafter called “the said Contractor” which expression shall unless  
the context requires otherwise include its administrators, successors and assigns).



**FORM OF PERFORMANCE SECURITY (GUARANTEE)**

**Bank Guarantee Bond**

**[Reference para 30.6.2]**

1. In consideration of the Chairman, AAI (hereinafter called “AAI”) having offered to accept the terms and conditions of the proposed agreement between .....and.....[hereinafter called the said Contractor(s)] for the work ..... (hereinafter “the said agreement”) having agreed to production of a irrevocable Bank Guarantee for Rs.....(Rupees .....only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

We ..... (indicate the name of the Bank) (hereinafter referred to as “the Bank”) hereby undertake to pay to the Chairman, AAI an amount not exceeding Rs. .... (Rupees ..... only) on demand by AAI.

2. We ..... (Indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demure, merely on a demand from AAI stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank Shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs..... (Rupees ..... only).

3. We, the said Bank, further undertake to pay to the Chairman, AAI any money so demanded notwithstanding any dispute or disputes raised by the contractor (s) in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under his bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

4. We..... (Indicate the name of the bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of AAI under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-charge on behalf of AAI certified that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.

5. We ..... (indicate the name of the bank) further agree with AAI that AAI shall have the fullest liberty without our consent and without effecting in any manner our obligations hereunder to vary any of terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by AAI against in the said contractors (s) and to forebear or enforce any of the terms and conditions relating to the said agreement and we shall not be relived from our liability by reason of any such variation, or extensions being granted to the said contractor(s) or for any forbearance, act of omission on the part of AAI or any indulgence by the AAI to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving.
  
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
  
7. We..... (Indicate the name of the bank) lastly undertake not to revoke this guarantee except with the previous consent of AAI in writing.
  
8. This guarantee shall be valid upto.....\*..... unless extended on demand by AAI. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.....(Rupees.....only) or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

In presence of:

Dated this \_\_\_\_ Day of \_\_\_\_\_

WITNESS

1.

For and on behalf of (The Bank)

2.

Signature \_\_\_\_\_

Name & Designation \_\_\_\_\_

Authorisation No. \_\_\_\_\_

Name & Place \_\_\_\_\_

Bank's Seal \_\_\_\_\_

The above Guarantee is accepted by Airports Authority of India.

For and on behalf of Airports Authority of India.

Signature \_\_\_\_\_

Name \_\_\_\_\_

Designation \_\_\_\_\_

Dated \_\_\_\_\_

Note :- \* Date of validity should be schedule date of completion + six months.

**GUARANTEE FOR REMOVAL OF DEFECTS**

**GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS  
AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS  
[Reference Para 31.3.1]**

The Agreement made this ----- day of ----- One thousand nine hundred and ----- between ----- son of ----- - of ----- [hereinafter called the Guarantor of the one part] and the Chairman, AAI [hereinafter called the Authority of other part].

WHEREAS THIS agreement is supplementary to a contract [hereinafter called the Contract] dated ----- and made between the GUARANTORY OF THE ONE PART and the Chairman, AAI, whereby the Contractor, inter-alia undertook to render the buildings and structures in the said contract recited completely water and leak proof.

AND WHEREAS THE GURANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak proof for five years from the date of giving of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and minimum life of such water proofing treatment shall be five years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose.

- [a] Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof.
- [b] Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts.
- [c] The decision of the Engineer-in-charge with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found render the building water proof to the satisfaction of the Engineer-in-charge at his cost and shall commence the work such rectification within 7 days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the department by some other contractor at the GUARANTOR's cost and risk. The decision of the Engineer-in-charge as to the cost, payable by the Guarantor should be final and binding.

That if Guarantor fails to execute the water proofing or commits breach there under then the Guarantor will indemnify the Principal and the successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reasons of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and / or cost incurred by the Government the decision of the Engineer-in-charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligator -----  
--- and by ----- and for an on behalf of the Chairman, AAI on the day, month  
and year first above written.

SIGNED, SEALED AND delivered by OBLIGATOR in the presence of: -

1.

2.

SIGNED FOR AND ON BEHALF OF CHAIRMAN, AAI ----- IN THE  
PRESENCE OF: -

1.

2.

**FORM OF SUPPLEMENTARY AGREEMENT**  
**[Reference Section 32.7.1]**

This Agreement made this day the ..... between .....hereinafter called the First party which expression shall include his heirs, executors and administrators / their successors and assigns and the Chairman, Airports Authority of India through ..... hereinafter called the Second party which expression shall include his successors assigns, shown as under:-

1. That this Agreement shall be called as Supplementary Agreement to the Agreement No. ....relating to the construction of ..... entered into by the parties to this agreement.
2. That WHEREAS the first party has substantially completed the execution of the work described in and covered by the Agreement No. .... except the item mentioned in the schedule annexed to this Agreement And whereas the items of the work mentioned in the schedule annexed to this Agreement can not now be executed on account of non completion of the sanitary work, electric installation and some other work; and whereas both the parties are desirous that the items mentioned in the schedule annexed to this agreement should be executed by the first party after the completion of the sanitary work, electric installation and some other work, it is hereby further agreed as under:-
  - (a) That the first party shall and will execute the work covered by the items mentioned in the schedule annexed to this agreement at the rates and as per the terms and conditions of the original Agreement no. .... whenever called upon to do so by the Engineer-In-Charge, within a period of one year from the date hereof.
  - (b) That the first party shall have absolutely no claim of whatsoever nature against the second party for doing the work mentioned in the schedule annexed to this Agreement as required under clause (a) above, except that which he would be entitled to under the original Agreement No.....
  - (c) That the first party shall be liable to execute all other items arising out of the original Agreement No..... which in the opinion of the Engineer-In-Charge are necessary.
  - (d) That the first party shall start with the work of the remaining items mentioned in the schedule annexed to this Agreement within ..... days from ..... on the receipt of a letter to the effect from the Engineer-In-Charge or from any date fixed in the said letter and shall complete the said work within the time fixed by the said Engineer-In-Charge or as extended by him from time to time.
  - (e) That on the due execution and completion of this agreement by the parties, the bill of the first party in relation to the work already done by him under the original Agreement No..... shall be provisionally finalised by the second party and payment on account, if any amount is due, shall be made to the first party provided that the second party shall have a right to retain such amount as is considered reasonable by him as a security for the execution of the work mentioned in the scheduled annexed to this agreement and the second party shall have a right to deal with the said amount of security as the thinks proper

under the terms and conditions of the original agreement. Further, on the due execution and completion of this agreement, the first party should be entitled to claim back his security deposit relating to the work in question, subject to the right of the second party to retain such amount as he thinks reasonable as mentioned above soon after the maintenance period of \_\_\_ month(s), as the case may be mentioned in Clause ..... of the original agreement, is over.

(f) That the final bill relating to the entire work under the two agreements should be prepared after the completion of the entire work covered by Agreement No..... and this agreement.

3. Except as modified by this agreement the said Agreement No..... shall remain in full force and effect.

IN WITNESS WHEREOF THE ABOVE MENTIONED PARTIES HAVE PUT THEIR signature on this day the.....

\_\_\_\_\_  
(Signature of Contractor)

\_\_\_\_\_  
(Signature of accepting authority  
For and on behalf of Chairman,  
Airports Authority of India

\_\_\_\_\_  
(Signature of Witness)

\_\_\_\_\_  
(Signature of Witness)

Name & address  
of witness \_\_\_\_\_

Name & address  
of witness \_\_\_\_\_

**PROFORMA FOR SITE ORDER BOOK**

**[Reference Para No. 34.1]**

1. Name of Work: : -----
2. Agreement No. : -----
3. Name of Contractor : -----
4. Stipulated date of Commencement : -----
5. Stipulated Date of Completion : -----

SN	Remarks of the Inspecting officer or Contractor	Action taken and by whom	Remarks
(1)	(2)	(3)	(4)

**INSPECTION PROFORMA FOR WORKS**

**[Reference Para No. 34.1(a)]**

1. Name of the work :
2. Location :
3. Name of the contractor/agency :
4. Cost of the work (estimated and contract) :
5. Date of award of contract :
6. Date of commencement of work :
7. Scheduled date of completion of work :
8. List of documents maintained at site :
9. Quality of the work. Does it confirm to the prescribed specifications? If not, what are the reasons. :
10. Physical progress of the work (%)
  - (i) Targeted: :
  - (ii) Achieved: :
11. Highlight the delays that have occurred or anticipated: :
12. Likely effect of the delays on over all targets: :
13. Actual expenditure incurred :
14. Physical progress (Total work done in money value) :
15. Whether the actual expenditure commensurate with the physical progress of the construction work? If not, reasons thereof :
16. Inspection resume :
17. Remedial Measures
  - (a) Progress of Work :

Signature of the  
inspection officer





**STANDARD SCHEDULE OF CONTRACT PERIODS**  
**[Reference para 36.1.1]**

S. No	Type of building	Contract period (in months) for total plinth area of buildings in all floors including basement.					
		Upto 250 Sqm	251 to 500 Sqm	501 to 1000 Sqm	1001 to 2500 Sqm	2501 to 5000 Sqm	Every additional 2500 Sqm
<b>A. FOR BUILDING WORKS</b>							
1	SINGLE STOREYED LOAD BEARING STRUCTURES	4	6	8	10	11	1
2	SINGLE STOREYED FRAMED STRUCTURES	5	7	9	11	12	1
Extra for every additional storey (for load bearing as well as framed structures): 1.5 months							

(B)		<b><u>For Modern Building with Steel Structure</u></b>	
S. No	Type of Building	Contract period (in months) for total plinth area of buildings in all floors including basement.	
		Upto 5000 Sqm	Every additional 2500 Sqm
1	For Modern Building with Steel Structure, curtain glazing and profile sheet roofing	11	1

(C)		<b><u>For Pavement Works</u></b>
S. No	Estimated Cost of Work	Contract period (in months)
1.	For Works upto Rs. 5.00 crores	3 – 6
2.	For Works beyond Rs. 5.00 to Rs. 10.00 crores	6 – 9
3.	For Works beyond Rs. 10.00 to Rs. 15.00 crores	10 – 12
4.	For Works above Rs. 15.00 crores	13 – 18

**Notes:**

1. This Schedule is applicable for works where construction of buildings of total plinth area upto 25,000 sqm. is involved. For bigger works, the NIT approving authority shall decide the contract period based on the merits of the individual case.

2. This schedule is to serve as a general guide for fixing contract periods for building works under normal conditions, in large cities like Delhi, Kolkata, Chennai etc. where the building trade is well organized. For small or out of the way places where normal facilities for construction of building may be lacking, contract periods should be fixed suitably after taking into consideration the local conditions, subject to a maximum increase in time period of 33-1/3%.
3. When the contract period runs through monsoons, extra period may be allowed for the same on the assumption that progress during monsoons is about half of the progress in fair weather. For example in Delhi, where the monsoons last for about 2 months one month may be added, and in places like Kolkata and Mumbai, where monsoons last four months, two months may be added.
4. Where a basement is to be provided, an extra period of 3 to 4 months may be added depending on the extent of basement and depth of sub-soil water table.
5. This schedule takes into account the normal building specifications as per standard CPWD Plinth Area Rate. Extra period may be allowed for works having special features such as (i) domes, shells and coffered roofs, (ii) extensive stone work, stone veneering and sculpturing and (iii) special finishes and architectural feature.
6. In case of works consisting of number of small units, such as a group of residential quarters, scattered over a large area, an extra period of 1 to 3 months may be allowed depending on the number of units and their disposition.
7. When work is to be executed in congested areas and on small sites, the period may be suitably increased because of difficulties in storage of building materials.
8. This schedule takes into account about 3 months for foundations in the case of multi-storeyed buildings of five or more storeys. In case of buildings on piles, normally the work of the piles would be executed through a separate contract and the time required for the superstructure should be fixed by reducing the period determined on the basis of the schedule by about 3 months.
9. Contract periods for internal and external services should be fixed according to the programme for completion of the building taking into consideration the local conditions.
10. For particular cases of urgent nature of cases where completion period is fixed and cannot be postponed and cases of national importance, workable time period may be fixed preferably by holding a pre-bid conference with the prospective tenderers.

**D. Extra Time for Remote / Difficult Area**

For works in North Eastern Region, extra time of 20% will be allowed.

For works in Srinagar, extra time of 30% will be allowed.

For works in Leh, Portblair and Agatti, extra time of 50% will be allowed

**PROFORMA FOR PROVISIONAL EXTENSION OF TIME**  
**[Reference para 36.2.1]**

No. \_\_\_\_\_

Dt \_\_\_\_\_

To

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SUB: Construction of \_\_\_\_\_  
Agreement no. \_\_\_\_\_

Dear Sir(s),

Reference your letter no. \_\_\_\_\_ dated \_\_\_\_\_ regarding grant of extension of time for completion of the above work.

2. The stipulated date of completion for the above mentioned work was \_\_\_\_\_ as per agreement.
3. Provisional extension of time for completion of the above mentioned work is granted upto \_\_\_\_\_ without prejudice to the right of AAI to recover the liquidated damages in accordance with the provision of clause 32 of the said contract agreement.
4. Provided notwithstanding the extension hereby granted time is and shall still continue to be the essence of the said agreement.

Yours faithfully

SM/SM(SG)/Asstt. GM Engg  
For and on behalf of the Chairman  
Airports Authority of India

NOO

1. The DGM/JGM Engg \_\_\_\_\_
2. The AM/M Engg \_\_\_\_\_
3. The AM/M, RAU/SAU \_\_\_\_\_ Region

SM/SM(SG)/Asstt. GM Engg

**[FORM OF APPLICATION BY THE CONTRACTORS FOR SEEKING EXTENSION OF  
TIME] [PART-1]  
[Reference Para 36.5.1]**

1. Name of Contractor
2. Name of work as given in the agreement
3. Agreement No.
4. Estimated cost put to tender/contract amount
5. Date of commencement of work as per agreement
6. Period allowed for completion of work as per agreement
7. Date of completion stipulated (in agreement)/actual
8. Period for which extension of time has been given previously:
  - a] 1<sup>st</sup> Extension Vide SM's No      Dated              Months              Days
  - b] 2<sup>nd</sup> Extension Vide SM's no      Dated              Months              Days
  - c] 3<sup>rd</sup> Extension Vide SM's no      Dated              Months              Days
  - d] 4<sup>th</sup> Extension Vide SM's No      Dated              Months              DaysTotal extension previously given.
9. Reasons for which extensions have been previously given.  
[Copies of the previous applications should be attached]
10. Period for which extension is applied for
11. Hindrances on account of which extension is applied for with dates on which hindrances occurred and the period for which these are likely to list.
  - a] Serial No.
  - b] Nature of hindrances
  - c] Date of occurrence
  - d] Period for which it is likely to last
  - e] Period for which extension required for this particular hindrance
  - f] Overlapping period if any with reference to item
  - g] Net extension applied for
  - h] Remarks; if any

Total period for which extension is now applied for on account of hindrances mentioned above.

Month

Days

12. Extension of time required for extra work
13. Details of extra work and the amount involved: -
  - a] Total value of extra work
  - b] Proportionate period of extension of time based on estimated amount put to tender on account of extra work.
14. Total extension of time required for 11 & 12

Submitted to the Assistant Manager/ Manager -----

Signature of Contractor  
Dated

**APPLICATION FOR EXTENSION OF TIME – [PART-2]  
[To be filled in by AM/Manager Engg]**

1. Date of receipt of application from -----
2. Contractor for the work of ----- in the O/o AM/Mgr.
3. Acknowledgement issued by AM/Mgr. vide his no. ----- dated -----
4. Acknowledgement issued by AM/Mgr. vide his reasons given by the contractor are correct and what extension; if any; is recommended by him. If he does not recommended the extension reasons for rejection should be given.

Signature of AM/Manager [Engg.]  
Dated:

**[To be filled in by the Senior Manager/SM(SG) (Engg)]**

1. Date of receipt in the Divisional Office
2. Senior Manager [Engg] remarks regarding hindrances mentioned by the Contractor:
  - i] Serial No.
  - ii] Nature of hindrance
  - iii] Date of occurrence
  - iv] Period for which hindrances is likely to last
  - v] Extension of time applied for by the Contractor
  - vi] Overlapping period if any, giving reference to items which overlap
  - vii] Net period for which extension is recommended
  - viii] Remarks as to why the hindrance occurred and justification for extension recommended
3. Senior Manager [Engg] recommendations : The present progress of the work should be stated and whether the work is likely to be completed by the date up to which extension has been applied for. If extension of time is not recommended, what amount of compensation is proposed to be levied under clause no.\_\_\_\_ of the agreement.

DGM/JGM Engg's recommendations

Date:

Signature of SM/SM(SG) [Engg]

GM (Engg)'s recommendations

Date:

Signature of DGM/JGM [Engg]

Executive Director 's recommendations

Date:

Signature of GM [Engg]

Dated:

Signature of ED

**HINDRANCE REGISTER**  
[Reference Para no. 36.5.2.1]

Name of work :

Agreement No. :

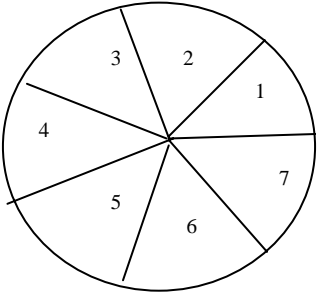
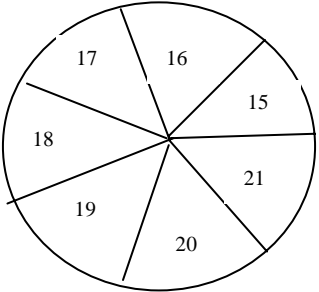
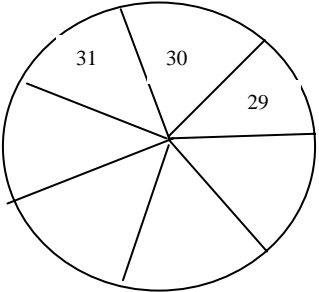
S.N.	Name of hindrance	Date of start of hindrance	Date on which hindrance was over	Period of hindrance	Overlapping period if any, of simultaneous hindrance	Net period of hindrance	Remarks	Signature of SA/SS/Jr. Exe/AM /ME
1	2	3	4	5	6	7	8	9

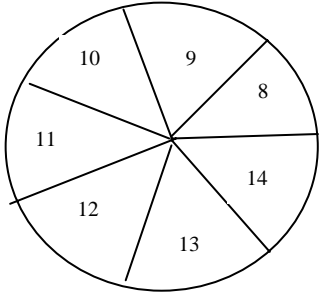
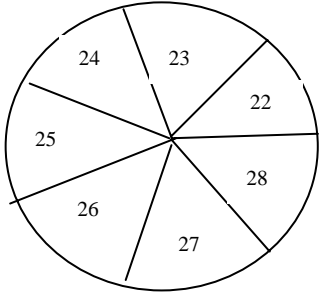
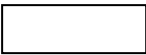
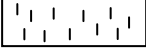

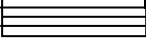
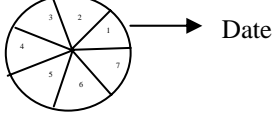


**WEATHER REPORT**  
**[Reference Para no. 36.5.2.2]**

**Name of Work:**

**Month:-**

	
Week No. _____ Week Start _____	Rain Fall _____ Week End _____
	
Week No. _____ Week Start _____	Rain Fall _____ Week End _____
	
Week No. _____ Week Start _____	Rain Fall _____ Week End _____

	
Week No. _____ Week Start _____	Rain Fall _____ Week End _____
	
Week No. _____ Week Start _____	Rain Fall _____ Week End _____
<b>LEGEND</b>	
1. Fair & Clear	
2. Cloudy	
3. Rain	
4. Partly Rain	
	

**PROFORMA FOR INTIMATING THE CONTRACTOR LEVY OF LIQUIDATED DAMAGES  
[Reference Para no. 36.5.4.1]**

To

Name\_\_\_\_\_

Address of the Contractor\_\_\_\_\_

\_\_\_\_\_

Subject:\_\_\_\_\_

Dear Sir(s),

The date of completion for the above mentioned work was\_\_\_\_\_as stipulated in the agreement \_\_\_\_\_ (here give the number and date etc. of the agreement).

Extension of time for completion of the above mentioned work was granted upto \_\_\_\_\_without prejudice to the right of AAI to recover the liquidated damages in accordance with the provision of clause (here give relevant clause no.) of the said contract agreement.

In exercise of the powers conferred on me under clause (here refer the relevant clause no.) of the agreement, I\_\_\_\_\_the \_\_\_\_\_Engineer decide and determine that you are liable to pay Rs. \_\_\_\_\_ as and by way of compensation as stipulated in clause--- (here refer the relevant clause no.) of the agreement. The said amount of compensation is hereby levied on you for the period of \_\_\_\_\_ and at the rate of \_\_\_\_\_as determined by me of the contract value of the work and you are hereby called upon to pay the same to the Airports Authority of India within \_\_\_\_\_(here mention the period) failing which the said amount should be recovered by the Airports Authority of India from your security deposit or other dues lying with the Government.

Yours faithfully,

\_\_\_\_\_Engineer

**PROFORMA FOR EXTENSION OF TIME**  
**[Reference Para no. 36.6.1]**

To

Name\_\_\_\_\_

Address of the Contractor\_\_\_\_\_

Subject:\_\_\_\_\_

Dear Sir(s),

Reference your letter no. \_\_\_\_\_ dated \_\_\_\_\_ in connection with the grant of extension of time for completion of the work\_\_\_\_\_.

The date of completion for the above mentioned work was \_\_\_\_\_ as stipulated in the agreement No.\_\_\_\_\_.

Extension of time for completion of the above mentioned work is granted upto\_\_\_\_\_ without prejudice to the right of the Airports Authority of India to recover liquidated damages in accordance with the provisions of clause—(here refer the relevant clause no.) of the said contract agreement.

Provided that notwithstanding the extension hereby granted, time is and shall still continue to be the essence of the said agreement.

Yours faithfully

For and on behalf of the Chairman  
Airports Authority of India

\_\_\_\_\_Engineer.

**PROFORMA OF LETTER TO BE ISSUED TO THE CONTRACTOR FOR SUBMISSION OF  
EXTENSION OF TIME (PART-I)  
[Reference Para No.36.9.3.1]**

Date :

M/s -----

Sub: Extension of Time

Ref: 1) Agreement No. ----- for the work of -----  
2) Refer Site order entry no. ----- of the date.

Dear sir,

Your attention is invited to the above referred Agreement and relevant site order entry. You are required to submit your application for final extension of time as per the enclosed format (Ref clause no. ----- under ----- conditions of the contract)

In this connection you may kindly note that the actual date of completion as per our record is ----- . The application in the prescribed format shall be submitted within 21 days from the date of issue of this letter. If the details are not received within the prescribed period (or) if the details are not submitted within the date committed by you, AAI shall be finalizing the final Extension of Time based on the details available with this office.

Receipt of this letter should be acknowledged.

Yours faithfully,

(Name and Designation)  
Engineer-in-charge

Copy to 1) The DGM in-charge for the Region/Airport for information.

**NOTE: If the contractor requests extra time to furnish the details due to valid reason, beyond time specified above Engineer-in-charge may consider the same based on its merit. However, if the contractor fails to finalize the statements as per above letter. However, the contractor should be informed well in time about his failure to submit the details within the extended time in writing.**

**SPECIMEN OF LETTER GIVEN TO THE CONTRACTOR IN REGARD TO THE  
RECTIFICATION OF DEFECTIVE WORK AND REMOVAL OF SUB-STANDARD  
MATERIAL  
[Reference Para 38.1.1]**

To

M/s Shri -----

Subject: Construction ----- Agreement no. -----

WHEREAS the above work has been awarded to you under the subject contract and the same is in progress/the same has been completed.

2. WHEREAS the items of works as detailed in schedule attached herewith have been executed with unsound, imperfect and unskilful workmanship/with materials of inferior description and that materials and/or articles provided for the execution of the work are unsound and of a quality inferior to that contracted for.

3. WHEREAS the material and/or articles provided by you for execution of the work as detailed in the Schedule hereto are unsound and of quality inferior to that contracted for.

4. NOW you are hereby called upon to rectify or remove and reconstruct forthwith each item or work as detailed in the said schedule of work in whole or in part as the case may require with sound perfect and the skilful workmanship and/or with materials and articles of sound and proper quality as per the Contract at your own cost and charge.

5. I ----- Engineer-in-charge in exercise of the powers conferred on me by the aforesaid agreement, for and on behalf of the Chairman, AAI, hereby give you Notice to remove the cause set out above within ----- days to my satisfaction failing, which action will be taken against you under clause (s) nos.\_\_(to be indicated by Senior Manager [Engg.] of the agreement.)

For and on behalf of the Chairman, AAI

Senior Manager/SM (SG) [Engg]  
Engineer-in-Charge

**SPECIMEN OF LETTER BY THE SENIOR MANAGER [ENGG] / ASSTT. GM TO  
CONTRACTOR FOR PROVISIONAL REDUCTION IN RATE FOR SUB-STANDARD WORK**

**[Reference Para 38.2.1]**

To,

M/s -----

Dear Sir[s]

Subject: Construction ----- Agreement no. -----

--

The Chairman, AAI considers that the items of work [specified in the statement appended herewith] relating to the above mentioned work undertaken by you ----- in terms of the above agreement have not been executed in accordance with the prescribed specifications and/or in a workmanlike manner and therefore, cannot be accepted in terms of the above said agreement for payment at the rates specified in the agreement.

2. The Chairman, AAI however, is willing to consider acceptance of the same. should you agree to receive payment at rates suitably reduced taking into consideration the sub-standard nature of the said items of work. The DGM / JGM will determine as to what suitable reductions in the rates should be made from the agreed rates for the said items. His decision shall be final. Pending such decision of the DGM/JGM Engg, however, the payment for the said items of work will be made at the provisional rates indicated against each item.

3. If you agree to the aforesaid conditions for acceptance of payment for the said items of work you may please return the enclosed form duly executed by you.

4. If no reply is received from you within three weeks of the date of receipt of letter, it shall be presumed that the offer is not acceptable to you. In the said event the offer shall stand withdrawn, without prejudice to the right and remedies of the Chairman, AAI in terms of the contract.

Yours faithfully,

Senior Manager/SM(SG) [Engg.]  
For and on behalf of the Chairman, AAI

**SPECIMEN OF LETTER OF CONTRACTORS ACCEPTANCE OF PROVISIONAL  
REDUCTION OF RATE FOR SUB-STANDARD WORK**

**[Reference Para 38.2.1]**

To

-----  
-----

Subject: - Construction of -----

Reference: - Your letter no. -----

Sir,

I/We have carefully read the terms and conditions offered in your letter dated -----  
and they are acceptable to me/us.

Pending the decision of the DGM / JGM of the final rates of payment against the items of  
work specified in the statement attached to your above letter, which will be final and binding. I/We  
agree to the same being paid at the provisional rates indicated against each of the said item of work for  
the above work as mentioned in your statement.

Yours faithfully,

Contractor[s]

**FORM OF BANK GUARANTEE TO SECURE A LUMP-SUM ADVANCE**

(On Non-Judicial Stamp Paper)

[Reference at Para No. 39.1.2]

To  
The Airports Authority India

1. In consideration of the Airports Authority India having its head office at New Delhi (hereinafter called "AAI" which expression shall unless repugnant to the subject or context include its administrators, successors and assigns) having agreed under the terms and conditions (Contract Agreement No. \_\_\_\_\_ dated \_\_\_\_\_ made between \_\_\_\_\_ \* \_\_\_\_\_ and AAI in connection with the work of (hereinafter called "the said contract"), to make at the request of the Contractor a lump-sum advance of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) for utilizing it for the purpose of the Contract on his furnishing a guarantee acceptable for AAI we, the Bank (hereinafter referred to as "the said Bank") and having our registered office at do hereby guarantee the due recovery by AAI of the said advance with interest thereon -as provided according to the terms and conditions of the Contract. If the said Contractor fails to utilize the said advance for the purpose of the Contract and/or the said advance together with interest thereon as aforesaid is not fully recovered by AAI we, the \_\_\_\_\_ Bank hereby unconditionally and irrevocably undertake to pay to AAI on demand and without demur to the extent of the said sum of Rs \_\_\_\_\_ (Rupees \_\_\_\_\_ only) any claim made by AAI on us for the loss or damage caused to or suffered by AAI by reason of not being able to recover in full the said sum of Rs \_\_\_\_\_ (Rupees \_\_\_\_\_ only) with interest, as aforesaid.
2. We, the \_\_\_\_\_ Bank, further agree that AAI shall be the sole judge of and as to whether the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and the extent of loss or damage caused to or suffered by AAI on account of the said advance together with interest not being recovered in full and the decision of AAI that the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and as to the amount or amounts loss or damage caused to or suffered by AAI should be final and binding on us.
3. We, the said Bank, further agree that the Guarantee therein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract and till the said advance with interest has been fully recovered and its claims satisfied or discharged and till the Accepting Authority of the contract certifies that the said advance with interest has been fully recovered from the said Contractor, and accordingly on discharges this guarantee subject, however, that AAI shall have no claim under this Guarantee after 90 (Ninety) days from the date of completion of the said contract, i.e., \_\_\_\_\_ (date) or from the date of cancellation of the said Contract, as the case may be, unless a notice of the claim under this Guarantee has been served on the Bank before the expiry of the said period in which case the same shall be enforceable against the Bank notwithstanding the fact, that the same is enforced after the expiry of the said period.
4. AAI shall have the fullest liberty without effecting in any way the liability of the Bank under this Guarantee or Indemnity, from time to time to vary any of the terms and conditions of the said Contract or the advance or to extend time of performance by the said Contractor or to postpone for any time and from time to time any of the powers exercisable by it against the said



Contractor and either to enforce a forbear from enforcing any of the terms and conditions governing the said Contract or the advance or securities available to AAI and the said Bank shall not be released from its liability under these presents by any exercise by AAI of the liberty with reference to the matters aforesaid or by reason of time being given to the said Contractor or any other forbearance, act or omission on the part of AAI or any indulgence by AAI to the said Contractor or of any other matter or thing whatsoever after I which under the law relating to sureties would but for this provisions have the effect of so releasing the Bank from its such liability.

5. It shall not be necessary for AAI to proceed against the Contractor before proceeding against the Bank if and the Guarantee herein contained should be enforceable against the Bank notwithstanding any security which AAI may have obtained or obtain from the Contractor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealised.
6. We, the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of AAI in writing and agree that any change in the Constitution of the said Contractor or the said mess Bank shall not discharge our liability hereunder.

In presence of:

Dated this \_\_\_\_ Day of \_\_\_\_\_ 200\_

WITNESS

1.

For and on behalf of (The Bank)

Signature \_\_\_\_\_

2.

Name & Designation \_\_\_\_\_

Authorisation No. \_\_\_\_\_

Name & Place \_\_\_\_\_

Bank's Seal \_\_\_\_\_

The above Guarantee is accepted by Airports Authority of India.

For and on behalf of Airports Authority of India.

Signature \_\_\_\_\_

Name & Designation \_\_\_\_\_

Dated \_\_\_\_\_

Note:

**\*For Proprietary Concerns**

Shri \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_ carrying on business under the name and style of \_\_\_\_\_ at \_\_\_\_\_ (hereinafter called “the said Contractor” which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representatives).

**For Partnership Concerns**

1. Shri \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_

2. Shri \_\_\_\_\_ son of \_\_\_\_\_ resident of \_\_\_\_\_ carrying on business in co-partnership under the name and style of \_\_\_\_\_ at \_\_\_\_\_ (hereinafter collectively called “the said contractor” which expression shall unless the context requires otherwise include each of them and their respective heirs, executors administrators and legal representatives).

**For Companies**

M/s \_\_\_\_\_ a Company registered under the Companies Act, 1956 and having its registered office in the State of (Hereinafter called “the said Contractor” which expression shall unless the context requires otherwise include its administrators, successors and assigns).

**MATERIAL BROUGHT TO SITE AGAINST WHICH ADVANCE CAN BE GRANTED  
[REFERENCE PARA 39.2.1]**

**CATEGORY-A**

**[Items against which secured advance can be granted]**

**CIVIL: -**

1. Bricks
2. Stone and Brick aggregate
3. Stone
4. Finished products of brass, iron or steel such as doors and window frames, wire mesh gate, GI sheets etc.
5. Pre-cast RCC products, such as pipes, jali, water, storage tanks, etc.
6. Doors and windows fittings
7. Pipes and sanitary fittings of CI, SCI and HCI
8. Aluminium items & fittings

**ELECTRICAL**

1. Steel conduits
2. CI/GI Pipes
3. Distribution Boards
4. HT/LT Panels
5. CI Boxes
6. IC Boards
7. Switch gears [HT&LT]
8. ACSR Conductors
9. AC Plant & Machinery
10. Pumps
11. Generating sets [without oil]
12. Fans
13. Electric light fittings (without Tubs/Bulbs)
14. GI Sheets
15. Grills & Diffusers
16. other E&M Equipments

**CATEGORY-B**

**[Items against which secured advance can be granted after obtaining insurance cover]**

**CIVIL: -**

1. Glazed tiles, Terrazzo tiles and similar articles
2. Marble Slab
3. Asbestos cement products
4. Finished timber products, such as doors, windows flush doors, particle boards [subject to mandatory tests being satisfactory] etc.
5. Bitumen in sealed drums

Bitumen felt  
Polythene pipes and fittings  
Sanitary fittings and pipes of S.W Porcelain and Chinaware materials  
Laminated/Safety, one way vision and Bullet proof glasses  
Chemicals required for anti-termite treatment [in sealed drums]  
Paints, Varnishes, Distemper, Pigment, Sprit etc.  
Cement  
Sand and Moorum

**ELECTRICAL: -**

1. Transformers
2. Oil filled switch gears
3. LT & HT Cables
4. Fans
5. Storage & Dry Batteries
6. Epoxy cable compounds
7. Electric cable compounds
8. Electric light fittings
9. Wood battens, casing and capping and wooden boards
10. Flexible wires
11. PVC materials
12. Oil and Lubricants
13. Glass wool thermo Cole and other insulating material
14. Porcelain HT & LT insulators

**CATEGORY-C**

**[Items against which no secured advance should be granted]**

**CIVIL: -**

1. Glass products other than those indicated in Category-B
2. Chemical compounds other than those under Category-B

**ELECTRICAL: -**

1. Glass globes and shades
2. Bulbs and tubes
3. Petrol / Diesel
4. Foreon and other refrigeration gases
5. Oil & Lubricants
6. Batteries



**Obtaining Labour Licence before the date of the commencement of physical work**

An instance has come to notice wherein a Labour Licence was obtained by the contractor after physical commencement of the work, whereas same should have been obtained immediately after award of work and before starting the execution, as laid down in the relevant clause of the Conditions of Contract. To avoid re-occurrence of such situation, all concerned are advised to ensure that the contractor obtains a valid Labour Licence under the Contract Labour (R&A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971 well before the commencement of the work and retains the validity of licence till its completion. For the purpose of obtaining Labour Licence, Asstt. General Manager Engg./Sr. Manager Engg., Airports Authority of India will endorse a copy of letter of award to the Regional Labour Commissioner/Labour Enforcement Officer and issue the required certificate in Form-V i.e. (Form of Certificate by Principal Employer) to the contractor for obtaining the Labour Licence. The Engineer-in-Charge of the concerned work will be designated as Principal Employer on behalf of Airports Authority of India and should be responsible to complete all the formalities required under the provisions of Contract Labour Act/Rules aforementioned.

**EVALUATION OF PERFORMANCE OF CONTRACTORS/FIRMS****[Reference Section 50]**

Period of report: -----

**PART I**

1. Work
  - (a) Name
  - (b) Contract Agreement No.
  - (c) Contract Amount
  - (d) Date of Commencement
  - (e) Date of completion
  - (f) Progress till report  
(Approximate percentage)
  
2. Contractor (a)
  - Name
  - (b) Address
  - (c) Registered with (Department,  
Class and Reg. No.)

**PART II**

[Sr. Manager (Engg)/ Asstt G M (Engg)'s Assessment]

1. Mobilization Prompt/Average/Slow
  
2. Site Supervision Good/Adequate
  
3. Quality of work (Very Good, Good, Average, Poor, Very Poor)
  - (i) Material used
  - (ii) Structural work
  - (iii) Finish
  - (iv) Speed of execution
  
4. Carrying out instructions of  
Engineer-in-charge Immediate/Argumentative
  
5. Sub-Standard/Defective Work executed;  
(Yes/No. If yes, approximate value below).
  - (a) Defective works rejected.

- (b) Sub-Standard work standard work accepted at reduced rates
- 6. Was work delayed?  
(Yes/No. if yes, approximate value below).
  - (a) Were reasons beyond control; of contractor?
  - (b) Was delay due to lack of contractor's recourses or lack of adequate efforts by contractor?
  - (c) Whether any compensation was levied?
- 7. Behaviour of contractor and his employees with AAI officials.  
(Cordial/Average/Strained)
- 8. Is contractor financially sound? (Yes/No)
- 9. (a) Is contractor litigious? (Yes/No)  
(b) Does he habitually prefer boosted up claims for arbitrations (Yes/No)  
(c) If yes total amount claimed?
- 10. Overall performance of contractor  
(Very Good, Good, Average, Unsatisfactory)
- 11. Any other Remarks

Sign. & Date  
(Name)

Sr. Manager (Engg)/Asstt. GM (Engg)

Date:.....



**PART III**

**[D G M (Engg)/ A G M (Engg)'s Remarks]**

1. Does DGM(Engg)/ AGM(Engg) agree with Sr. Manager (Engg) 's / Asstt. G M (Engg) 's report and assessment?  
(Yes/No. Specify points of disagreement, if any?)
  
2. Comments on capabilities of contractor  
Technical           Excellent/Good/Poor  
Financial           Excellent/Good/Poor  
General             Excellent/Good/Unsatisfactory
  
3. Overall assessment of contractor.  
(Very Good, Good, Average, Unsatisfactory)
  
4. Any other Remarks

Sign. & Date  
(Name)

DGM (Engg)/AGM(Engg)

Date:.....

**PART IV**

**[G M (Engg.)'s Remarks]**

1. Comments/Overall assessment
  
2. Recommendation on issue of tenders for future AAI works
  
3. Any other Remarks

Sign. & Date  
(Name)

GM (Engg)

Date:.....

**PART V**

**[ED (Engg.)'s Remarks]**

Sign. & Date  
(Name)

ED (Engg)

Date:.....