(Annexure I to Board's Letter No. 2007/CE.1/CT/18 Dated 05.07.2010)

GUIDELINES FOR IMPLEMENTING "PROJECT MANAGEMENT CONSULTANCY" SERVICES IN RAILWAYS

1. Following are the guidelines for implementing Project Management Consultancy (PMC) in the Zonal Railways:

a. PMC shall be deployed only in two to three contracts in each Zonal Railway to gain experience. They will be deployed only in throughput enhancement construction projects (doubling, traffic facility, railway electrification and Signal & Telecommunication works) that are estimated to cost more than Rs.100 crore each. After gaining adequate experience, this policy would be reviewed by the Board after a period of one year for necessary further action.

b. PMC shall be adopted "contract based" and not "project based". Ideally, high value projects should be executed on a composite contract basis covering works relating to all departments (Civil, Electrical, OHE, S&T etc.) and one PMC should be engaged for that contract. However, where it is not feasible to float composite tenders for mega projects, PMC can be for the project as a whole covering multiple works contracts being executed in that project.

c. In Railway construction projects, PMC should be engaged only for supervision of contract and this PMC for supervision of contract should be distinct and different from other consultants, if any, engaged for planning, survey and other activities that precede the actual award of contract.

d. Since the PMC policy is new to Railway construction projects, PMC contract shall be finalized on Quality and Cost Based Selection (QCBS) method of selection for works contracts of value upto Rs.100 crore and Combined Quality Cum Cost Based Selection (CQCCBS)[1] method of selection for works

[1] Terms taken from the 'Manual of Policies and Procedure of Employment of Consultants' dated 31.08.2006, issued by the Ministry of Finance.

contracts of value more than Rs.100 crore. The detailed procedure for the proposed QCBS and CQCCBS based selections recommended is explained in chapter 3 of Volume I of model tender document and step by step procedure for evaluation of tenders vide page 106 to 111 of Volume II of model tender document. QCBS system entails awarding of scores for the stipulated parameters which inter alia, includes qualification and experience of the consultant and their key personnel at the Technical Evaluation stage and followed by opening of the Price Bid of those tenderers who qualify in the Technical Bid and the final award is determined based on the Financial Bid. In the case of CQCCBS system, the final award is based on the combined weightage given to the scores obtained both in Technical and Financial Bid. The detailed procedure to be followed in this regard are given in the model tender document.

e. Since the success of the PMC depends mainly on the quality of man-power the PMC consultant would engage in the contract, eligibility and qualification criteria to be prescribed in the PMC tender for different categories of personnel assume great importance.

f. Two-packet system of tendering shall be adopted i.e. packet one shall be technical bid and packet-two shall be price bid.

g. The consultant engaged for planning and design activities preceding the award of contract for the subject work shall not be eligible to participate in the PMC in the same work.

h. In this PMC, the Consultants shall function in the capacity as Engineer's Representative and the Engineer's role shall continue to be with regular Engineer/ Manager(s) of Railways.

i. The PMC consultants or any of their members (if it is a consortium), cannot be engaged as the main works contractor for the same project for which they are consultants.

j. Participation of JV/consortium in the proposed PMC contract would be encouraged. The JV policy guidelines that were recently introduced in works contracts vide Board's letter no.

2002/CE-1/CT/37 dated 2.9.08 would be equally applicable in PMC contracts to the extent modified. This will facilitate Joint Ventures firm to participate in PMC contracts.

k. Measurement and preparation of bill etc. would be undertaken by the main works contractor and submitted in serially numbered measurement sheets. This shall be checked 100% by the PMC supervisor and further 20% test check shall be carried out by Assistant Resident Engineer/ Resident Engineer of the PMC consultant. This shall be followed by representative test check at not less than 10% by the nominated engineer of the Railways. The Dy CE (In charge), who shall be designated as the 'Project Engineer', shall exercise random checks so as to ensure that procedure has been followed and there are no excess payment on account of incorrect/irregular measurements. The detailed measurement procedure to be followed by the PMC contractor has been furnished in the model tender document enclosed.

l. The Railway engineer at the JA grade level shall be the nominated 'Project Engineer (In charge)' who shall be responsible for all issues of project management inclusive of billing, measurements, quantity variations, progress report, etc. The detailed duties and responsibilities of the 'Project Engineer' shall continue to be as per the existing procedure except to the extent modified in these guidelines.

m. For hidden items, which cannot be verified later on even through the latest non-destructive testing methods, such as initial levels before the earthwork, in addition to the procedure under the clause (k) above, the test checks shall be more comprehensive and stringent and these shall be recorded in the presence of the Railway Supervisors.

n. PMC consultant shall indemnify Railways for excess billing claimed either due to oversight or done intentionally.

o. The consultant shall take out and maintain insurance at his own cost against risks as specified in the tender. Detailed clauses for this are incorporated in the model tender document enclosed.

p. It is the duty of the PMC consultant to keep a tag on variation in quantities in contracts and raise alarm sufficiently in advance to enable Railways take necessary corrective action.

q. PMC consultant's main responsibility is to ensure execution of work with due controls for safety, quality control, cost control and project progress monitoring; and for this purpose a Performance Guarantee shall be submitted by the PMC consultant.

r. Payment to the PMC consultant shall be made in the manner explained below:-

(i) The monthly payment shall be made @ 80% of the accepted man month rates as per actual deployment of staff duly certified by the Dy.CE (In charge).

(ii) 10% of the accepted man month rates shall be released proportionately to the average financial progress of the construction contract for which PMC has been appointed.

(iii) Balance 10% of the accepted man month rates shall be released on successful commissioning of the project as under:

i) On preparation and submission of Final bill – 6%

ii) During defect liability period of one year- 4% @ 1% for each quarter.

In case any of the relevant Key Personnel/Technical staff remains unavailable during important activities, like Pre-Non interlocking, Non-interlocking work and commissioning of project, recovery will be made @ three times the payable remuneration.

s. A proper *Quality Assurance* system including positioning of programme expert, quality expert and safety expert should be put in place by the works contractor for deriving the full benefit for PMC. The works tender should provide for such a system. The PMC should ensure that the works contractor put such a Quality Assurance system in place and see that the same is properly implemented. It is also PMC's responsibility for getting approval of the competent Railway authority for

construction methodology proposed by the contractor, for changes in design and scope of work if any warranted during the project execution, for the timely reaching of milestones fixed and for the good performance of the asset created during the defect liability period.

t. For successful execution of mega Railway projects for which PMC consultants are engaged, commensurate allocation of funds every year to meet the physical target is of paramount importance. In the present scheme of things, this sort of assured allocation of funds during the gestation of the project execution does not take place and this besides jeopardizing the physical target also leads to huge cost overrun and consequent contractual complications. For success of PMC contracts, a minimum guaranteed fund allocation for the project concerned (for which PMC consultant is engaged) during the construction period has to be ensured.

u. Amendments to the extant codal provision in Engineering code and Finance code can be undertaken after the PMC policy is introduced and sufficient experience gained. For the present, suitable clauses have been incorporated in the model tender document to take care of deviations from the extant clauses applicable to works contracts.

v. The PMC cost and the cost of Railway establishment put together should not be more than the permissible D&G provision in the sanctioned estimate for the project concerned.

w. All PMC tenders irrespective of its value shall be finalized by tender committees of level not less than SAG.

x. Since PMC concept is new for Railways, there is a need to develop PMC expertise for Railway related works. Since the existing PMC consultants may not have direct railway project experience, after awarding a PMC contract, a few select supervisory personnel of the PMC consultant should undergo training at IRICEN, Pune, which has already developed training modules on PMC. The cost of training and other incidental expenditure in this regard shall be borne by the PMC

consultant. Necessary clauses to this effect has been incorporated in the tender document.

2. **MINIMUM QUALIFICATION CRITERIA**

2.1 Only those offers which are considered as valid offers would be taken up for evaluation of technical bids.

(a) The tenderer must have paid the cost of the tender document.

(b) The tenderer must have paid the EMD amount in one of the prescribed formats.

(c) The tenderer should be a valid, legal and duly registered/ incorporated entity – individual/firm/society/company registered in India or a valid JV firm/consortium.

(d) The tenderer should not have been blacklisted.

(e) The tenderer should not have conflict of interest as defined in the tender condition.

2.2 **Technical Eligibility**

1.	Minimum value of a single eligible PMC contract carried out in the last five years i.e. current financial year and the previous five financial years.	(A) Value of one completed Eligible Assignment executed for Railway works, equivalent to 0.5% of the cost of work for which the subject PMC tender is being called, OR Value of one completed Eligible Assignment relating to a project executed for government or quasi-government organization other than Railways equivalent to 0.75% of the cost of work for which the subject PMC tender is being called.
2.	Turnover from Consultancy Contracts during the last three financial Years, i.e. Current Financial year and previous Three years.	The tenderer should have a minimum turnover of **0.75 %** of the cost of work for which the subject PMC tender is being called, in last three financial years
3	Net Profit	The tenderer should have been in 'Profit' at least during two of the preceding three financial years.

NOTE: "Eligible Assignment" in the above table is defined as consultancy assignments in respect of General Consultancy Services, Project Management Consultancy services, Construction Supervision / Monitoring, as the case may be, for the projects relating to highways, airports, metro rail or other infrastructure projects for engineering

works. For workshop/RE/S&T works, the *Eligible Assignment* will have to be suitably defined in the tender document by the competent authority i.e. overall 'Project Head' in consultation with associate FA&CAO.

2.3 **Qualification and Experience Requirement of Key Personnel**

2.4 List of Key Personnel: The Tenderer shall offer and make available the Key Personnel as per the list prescribed in the tender.

2.5 The CAO in consultation with FA&CAO/C may modify the type and number of key personnel, their qualification, experience, number of eligible assignments, etc. in the eligibility condition of the tender depending upon the nature of the project, its scope and requirement. A suggested list of Key Personnel for PMC contract has been given in the model tender document enclosed.

2.6 Terms of Reference (TOR) i.e. the scope of consultancy work shall be clearly defined in the tender document. A sample TOR has been given in the model tender document. Similarly, the role and responsibility of the PMC has also been elaborated in the model tender document.

2.7 The detailed evaluation procedure to determine a tenderer's eligibility (as per the QCBS model) for opening the financial bid has been explained in the model tender document enclosed.

3. **<u>OTHERS</u>**

(a) The model tender documents for the purpose of awarding PMC contract are enclosed herewith in two volumes. Volume I contains standard fixed clauses and Volume II contains variable clauses. While clauses in volume I will remain unchanged in all PMC contracts, the clauses in Volume II can be changed by the Zonal Railway with the approval of the CAO/C or the PHOD concerned with concurrence of FA & CAO/C or FA & CAO as per the requirements in each PMC contract.

(b) Since in the proposed PMC model, the responsibility of measurement and billing has been assigned to the works contractor, it is necessary that the works contractor has a proper team of technically qualified personnel.

(c) After gaining sufficient experience in the field organization, this policy would be further reviewed after period of say one year.

(d) In order to get a lasting solution for effective supervision of Railway projects, it is necessary to strengthen the infrastructure for in house supervision. This can be done by launching a massive recruitment drive to fill the existing vacancies of supervisory officials in all departments.

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