

DELHI DEVELOPMENT AUTHORITY  
OFFICE OF THE CHIEF ENGINEER(QC)/DDA.

No. F-13(36)2003/EC/CS/111

Dated: the 4<sup>th</sup> Oct., 05.

10.10.05

CIRCULAR No - 162

During Q.C. inspections repeated observations have been made in the past regarding poor quality of form work, honeycombing in RCC work, improper placement of reinforcement and inadequate covers to reinforcing bars. But, such defects are still continuing to occur.

It has been observed that the Ex. Engineers send their general reply at much later date stating that defects were rectified subsequently by plastering, micro concreting etc. or reductions effected. Such casual approach on the part of Ex. Engineers not exercising proper process control and not attending promptly the observations of Q.C. Cell defeat the very purpose of Quality Control inspections by Q.C. Cell.

The attention of Ex. Engineers is drawn to Quality Control Circular No.134 of 8.2.95 which emphasizes for checking and approval of form work by AE/EE before the concreting is allowed, and maintenance of records to this effect in the shuttering approval register. To ensure the proper quality of cement concrete the Ex. Engineers have to collect at least 10% of samples of C.C. Cubes and get them tested in their presence; S.Es are also required to collect and test a few samples in their presence. Further, the E.Es. have been directed to inform the Q.C. Cell about the programme of major concreting work in advance either in writing or telephonically to enable the E.Es (QC) to inspect the work and collect the concrete cube samples for checking the quality of the concrete. But none of the instruction are being complied with.

It is enjoined upon all the Ex. Engineers to strictly comply with the instructions contained in Circular No.134 failing which it will be presumed that the Ex. Engineer concerned is intentionally ignoring the instruction and the matter will be dealt accordingly.

( A.P. Singh )  
Chief Engineer(QC)

Copy to:

1. PS to EM/DDA.
2. All Chief Engineers
3. All Executive Engineers

1223/96(QC)II  
18/10/05

1223/96(QC)II  
18/10/05

DELHI DEVELOPMENT AUTHORITY  
OFFICE OF THE CHIEF ENGINEER (QC)

No. F.73(36)2003/QC/CE/ 275

Dated: 16/12/05

CIRCULAR NO. 163

During the Q.C. inspections it has been observed that compaction of earth filling under the floors is invariably done by flooding with water rather than filling in layers, watering to O.M.C. condition and compacting each layer so as to achieve maximum density. By flooding the loosely filled earth, the desired consolidation can't be achieved and the floor is liable to settlement in a later date.

It is therefore, enjoined upon all the field Engineers to ensure the aforesaid practice is completely avoided and the earth filling under the floors is done in layers under O.M.C. condition compacted properly using hand rammer of specified weight or the vibre-plate compactor of appropriate capacity.

( A.P. SINGH )  
CHIEF ENGINEER (QC)/D.D.A.

Copy to:-

1. O.S.D. to V.C. for information please.
2. EM/DDA for information please.
3. All CE's/DDA with request to circulate copies among their SE's/EE's.

✓ SE(QC) and All EE's(QC)/D.D.A.

*AE(QC) for record & check accordingly*

*AE(QC)*

*AP Singh*  
21/12

*AP Singh*  
CHIEF ENGINEER (QC)/D.D.A.

DELHI DEVELOPMENT AUTHORITY  
OFFICE OF THE CHIEF ENGINEER(QC)

No. PS/CE(QC)Circular/2006/14 Dated: the 16<sup>th</sup> Jan., 06.

CIRCULAR /64

Sub: Guidelines for Checking the justification of rates for tenders by the committee constituted by WAB.

The committee comprising of CE(QC), CAO and the C.E. of concerned zone has been constituted as conveyed by Secy., WAB, DDA vide his office letter No. WAB(76)Vol.137/Secy/559 dated 6.10.05 to review the justification submitted by Chief Engineers. The S.E.(P) of concerned zone is Member Secretary.

It has been observed that the CEs do not submit the case to the committee complete in all respects. Also the same is submitted by the SE(P) without scrutinizing which results in delay in its checking. In order to avoid the delay, it is necessary to observe the following procedure:

- 1) The Zonal C.Es., while submitting the case to the committee should invariably attach the certified copy of basic rates followed for preparation of justification. The date of call of tenders should also be indicated.
- 2) In the analysis of rates the reference to DAR for schedule items and reference to other approved Analysis of rates for non-schedule items should invariably be indicated.
- 3) The market rates prevailing at the time of call of tender in respect of the major constituents such as cement, steel and bitumen should also be verified and the final major implication thereof which may effect the justification, should be indicated separately.
- 4) The SE(P) shall get the justification checked to his entire satisfaction and submit to the committee indicating the amount justified by the concerned EE and the amount justified by SE(P) indicating the reasons for variation, if any. He shall also indicate the justification approved by the Committee for similar work in the past, if any with reason of variation.
- 5) The SE(P) shall prepare the minutes of meeting and shall issue after approval of the Committee Members endorsing a copy of the same to the Secretary, WAB for further action.

  
(A.P. Singh)  
Chief Engineer(QC)

F69 (1)1003/EE/QC-II/HI/64

011.2.1.06

**DELHI DEVELOPMENT AUTHORITY  
CHIEF ENGINEER (QC)**

281/EE/QC-II  
03/03/06

Q.C. Circular No. 165

Instances have come to the notice of this office wherein it has been observed that the panelled shutters have not been procured directly from the approved manufacturers by the agency. Further the samples of shutters collected for testing were got tested only for dimensions, strength etc. but not for the timber identification.

It is enjoined upon all the field Engineers to ensure that the shutters are allowed to be procured from reputed and approved manufacturers only and the tests required as per IS No.1003 (Pt.I) 2003,1003 (Pt.II) /1994 as well as timber identification are invariably got carried out before the same are accepted. For non compliance, EE s shall be held responsible.

(A.P.SINGH)  
CHIEF ENGINEER(QC)/DDA

Copy to:

1. OSD to V.C/DDA for information of the latter.
2. EM/DDA for information please.
3. All CEs/DDA with the request to circulate copies among their SEs/EF's.
4. SE/QC & All EEs(QC)/DDA for information & necessary action. They should ensure compliance during their inspection.

EE/QC-II

*[Signature]*  
CHIEF ENGINEER(QC)/DDA.

Pl supply copies to *[unclear]*  
LDC  
*[unclear]*  
6/3

396/CE(Ac)II  
24/03/06

DELHI DEVELOPMENT AUTHORITY  
OFFICE OF THE CHIEF ENGINEER(QC)

NO:- F 68 (1)/317/EE/QC-III/90

014 23.3.06

CIRCULAR NO...166

Instance has come to the notice of this office wherein the payment of earth filling in parks/low lying areas has been made on the basis of truck-measurement, instead of taking proper levels at excavation and disposal points. In this regard, attention of all the concerned is drawn to clause 7.36 to 7.45 of CPWD works Manual Volume-II which outlines detailed procedure to be followed by the field officers for recording the measurements for earth levelling work ( copy enclosed for ready reference).

It is enjoined upon all the field engineers to ensure that aforesaid instructions contained in the CPWD Works Manual 2003 are strictly complied with. Non compliance thereof shall invite administrative action against the defaulters.

(A.P.Singh)  
Chief Engineer(QC)

Copy to:-

1. OSD to VC, DDA for information of latter..
2. EM/DDA for information please.
3. All CEs/DDA with the request to circulate copies among their SEs/FFs.
4. All EEs(QC),DDA

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Anil  
24/3

Chief Engineer(QC) 23/3/06

**7.39** 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 AE/AEE/EE to the name of the contractor indicated above within one month of the date of completion of the 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.

**7.40** Every fourth running bill and the final bill should be paid on the basis of levels.

**7.41** Intermediate payments can, however, be made on the basis of borrow pit measurements. The Executive Engineers should take care that the quantities thus assessed are not in any case more than the actual work done.

**7.42** 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 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 for the work to be done. Before the work of levelling is commenced, the lead chart shall be checked by a responsible officer of the department not below the rank of an AE/AEE in presence of the contractor or his authorised representative and his signatures shall be obtained on the same. This should form an integral part of the contract and should be duly signed by both the integral parties before commencement of the work. The quantity payable for earthwork shall be lower of the quantity derived from cutting or filling. The payment for lead shall be based on lead chart prepared in the aforesaid manner.

**7.43.1** 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 and stipulated in the tender. After this is determined, initial levels of this area should be recorded along with 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 shall 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.

**7.43.2** In respect of import of sweet earth required for horticulture operations, the quantity of good earth required is vary small and there is no single source from where the agriculture soil is readily available. Also, good earth is 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. However, Provision of 7.43.1 will not apply in respect of Horticulture works. The payments in such cases will be made on the basis of levels of the area where earth is to be filled.

**7.44** Similar procedure as in para 7.43.1 should be followed while recording measurements of disposal of earth.

**7.45** In case of small works, borrow pit 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.

### Review of Measurement Books

**7.46** All the Measurement Books in use in a Division should be collected once in the month of September each year for review by the Divisional Accountant in the following respects:-

- (i) To compare the books in use with part I of the register of measurement books maintained in CPWA form 92 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 initialled.
- (iii) To see that pencil entries are not inked over.

7.31 Test check of the Executive Engineers shall also include at least 10% test check of the measurements of RCC items so as to ensure structural safety of building.

7.32.1 In the case of receipt of steel the EE shall test check 10% of the total consignment received, in a month. Any consignment test checked by EE should be checked by him 100%. Permitted variation between the quantities as per 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.

7.32.2 If in any consignment the variation on lower side exceeds the aforesaid limits, 100% check of the measurements by Executive Engineer shall be carried out and detailed investigation into the reasons for the shortage recorded.

7.33 In case of road work where consolidated tenders have been called :-

- (i) The stacks shall be uniformly distributed along the road. The collection of stone metal shall be completed for the entire work or for complete length of 1 km or as directed by the Engineer-in-Charge and measured before the work of laying and consolidation is taken up in hand.
- (ii) The AE must check 50% and the Executive Engineer 10% of the supply of materials in each length of 1 km before the work of laying is started.

7.34 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.

7.35 A collective record of all the check 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.

#### Recording measurements for Earth levelling work

7.36 In case of levelling operations and earthwork, 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.

7.37 Before starting the earth work, the following steps should be taken:-

- (i) Original ground levels should be recorded in the level book in the presence of the contractor.
- (ii) A suitable baseline should be fixed with permanent masonry pillars @ 150 metres to provide a permanent reference line.
- (iii) Circuit should be closed by taking final levels of the starting point or any other point, the R.L. of which was previously determined.
- (iv) Plans showing initial levels, location of bench marks and reduced levels, should be prepared and signed by both the parties and attached to the agreement. Work should be done according to the Specification.

7.38 The Assistant Executive Engineer/Assistant Engineer should exercise test check at least to the extent of 50% and the Executive Engineer at least to extent of 10% where the value of this item of work exceed the limit given in Appendix-1. The test check of the levels should be carried out independently by each officer and readings should be recorded in the prescribed level book 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 taken or retaken and rechecked. The test check by an Officer should be as representative as possible for the entire work done.