

(149)

**DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL**

No. F 73 (36) 2003 / CE(QC) / DDA / 280

Dtd. 13th OCT. 06

Q. C. CIRCULAR No.179

In one of the case it is observed that Decorative Thermosetting Synthetic Resin Bonded Laminated Sheets as per IS:2046 were provided instead of agreement item of Phenolic Laminated Sheets conforming to IS:2036, on the plea that the sheets conforming to IS:2036 were not available in the market. It was argued that the said sheet meets all the requirements of IS:2036; but the test results submitted for the sheet did not show test results in respect of Insulation Resistance, after immersion in water which should be one mega ohm for Grade P-I type of Phenolic Laminated Sheets. Such change therefore was not desirable.

It is therefore enjoined upon all concerned for strict compliance that-

1. The material which is not available in the market should not be prescribed in the NIT. Market survey must be done before incorporating the same in the NIT.
2. No material should be allowed to be used which does not pass all the tests prescribed in the relevant IS code mentioned in the agreement for that material.

Non compliance of instructions shall be viewed seriously.

/

(A.P.Singh)
Chief Engineer (Q.A.C.)

Copy to:-

1. All Chief Engineer / DDA.
2. S.E. / QAC / DDA.
3. All SEs (Elect.) / DDA.
4. All EEs (Elect.) / DDA.
5. E.E.(Elect.) / QAC / DDA.

/stc
Executive Engineer(HQ)QAC

QUALITY ASSURANCE CELL
DELHI DEVELOPMENT AUTHORITY

F.73(36)03/Q.C./C.B./82

Dt: 20/3/07

Q.C.CIRCULAR NO. 180

SUB: Maintenance of Records/Registers in Division Office.

While conducting the technical audit of the various divisions it has been observed that the record/registers are not being maintained properly, as evident from the following:

1. Pages of register are not machine numbered and issued by the EE concerned.
2. Certificate regarding number of pages also not recorded.
3. Cuttings, over writing, additions, alterations/deletion not attested by the concerned officers.
4. Tender opening register does not indicate the name of contractors – representatives in whose presence tenders were opened.
5. Fate of the tender i.e. rejection/approval not entered in the register.
6. In NIT register the estimated cost and NIT No. not shown clearly. The record of numbering of NITs issued by Chief Engineer's Office and Circle Office not maintained.
7. The Contractor's Bill Register/Contractor Ledger Register in proper form indicating vouchers and TEs in the ledger and subsequent adjustment, release etc. not maintained uptodate.
8. Interest bearing security register not maintained by the Divisional Acctt.
9. Deposit register indicating receipt and refund of security deposit and earnest money and other misc. deposits not maintained properly and updated.

ARRD, MR (EE) 352 (P.A. & L.R.) - Akash for work & file in computer file
3/4/07

DELHI DEVELOPMENT AUTHORITY
(QUALITY ASSURANCE CELL)

ANOOBAG AHOOJA
Assistant Engineer
QAG-II/DDA

384/EE/QAC/21
02/04/07
No: F 73(36)03/QC/CB/94

Dated: 26 March, 2007

CIRCULAR NO. 181

Sub: Insurance Cover for Secured Advance on Cat.'B' Materials.

In one of the case it has been observed that Secured Advance was allowed to the agency on the security of material falling under category 'B' whereon the Secured Advance is paid to the agency provided the Comprehensive Insurance Cover is furnished by him for full cost of such material. The Contractor procured insurance cover initially for a period of 3 months to indemnify any loss. The material so procured was partly utilized and for additional material brought subsequently the Secured Advance was allowed further. The total quantity of material was utilized in the work in an extended period of additional five months. During the extended period of 5 months there was no insurance cover, as the policy was neither got renewed by the contractor nor fresh policy obtained. It was incorrect on the part of Executive Engineer to allow such Secured Advance without insurance cover. The Executive Engineer concerned made deduction for non-extension of insurance policy, when observation on the issue was raised by Quality Control Cell.

The action of the Executive Engineer is not in consonance with the provision of Section 31.5.4 of CPWD works manual 2003 and also clause 10B of the agreement. Such casual approach on the part of EE not only violates the contractual/codal provisions but also lead to loss to Government exchequer if any untoward incident happens.

Therefore, it is enjoined upon all concerned

1. To ensure that the Secured Advance is allowed on Category 'B' materials only on Comprehensive Insurance Cover.

AR 402, P 2 (2nd) 9 52¹ (GAD & 2nd) PP with for 40 40
P
3/4/07

DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL

No: F.73(36)/03/QAC/CEK-B/121

Dated: 25th April, 2007

Q.A.C. CIRCULAR NO 182.

Sub: Recording of Completion Certificate.

The Clause 8 of the contract document (PWD-7/8) provides that the Engineer Incharge, within 30 days of receipt of the notice of completion from the contractor, shall inspect the work and if there is no defect in the work, shall furnish the contractor with a **Final Certificate of Completion**, otherwise a **provisional certificate of physical completion** indicating defects (a) to be rectified by the contractor and/or (b), for which payment will be made at reduced rates, shall be issued. But no **Final Certificate of Completion** shall be issued nor shall the work be considered to be complete until the contractor shall have removed from the premises all scaffolding, surplus materials, rubbish, hutments and sanitary arrangements and cleaned of the dirt, splashes from doors, windows etc. to the satisfaction of Engineer Incharge.

The Clause 9 of the contract documents says that the final bill shall be submitted by the contractor within 3 months of **physical completion of work** or within 1 month of the date of the **Final Certificate of Completion** furnished by Engineer In-charge, whichever is earlier.

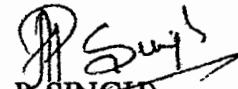
The Clause 16 of contract documents states that the contractor shall, on demand in writing which shall be made within 6 months of **completion of work** from the Engineer Incharge specifying the work, materials or articles complained of, rectify or remove and reconstruct the work as the case may be, at his own cost.

The Clause 17 of contract document states that the security deposit of the contractor shall not be refunded before expiry of 12 months (6 months in case of works costing Rs. 10 lacs and below except road work) after issue of the **certificate final or otherwise, of completion of work**, or till the final bill has been prepared and passed, whichever is later.

(iii) The **Final Completion Certificate** should be recorded after the defects are rectified to the satisfaction of Engineer Incharge.

(iv) The contractor should be asked to submit the final bill after issue of the **Final Completion Certificate**. If he fails to do so within the specified period, the Engineer Incharge may prepare the bill at his own and send the intimation to this effect to the contractor in terms of the contract.

It will be the responsibility of the Superintending Engineer to ensure that the **Final Completion Certificates** are invariably recorded in respect of each work without fail. Non-observance shall invite administrative action.


(A.P. SINGH)
CHIEF ENGINEER (QAC)

Copy to:

1. EM/DDA.
2. OSD to VC/DDA for information of the latter.
3. All Chief Engineers i/c CE(Elect), Project Manager (Flyover), Director (MM)/DDA.
4. All Suptdg. Engineers i/c SE(QC)/DDA.
5. All EEs i/c EEs(QC)/DDA


CHIEF ENGINEER (QAC) 2574107

DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL

No: F-73(36)/03/QAC/CE/CB/150

Dated: 17th May 2007

Q.C. CIRCULAR NO. 183

Sub: Curing of Cement Concrete / RCC Work.

Curing is the process of preventing the loss of moisture from the concrete whilst maintaining a satisfactory temperature regime. As provided in the IS:456:2000 the prevention of moisture loss from the concrete is particularly important if the water cement ratio is low, if the cement has a high rate of strength development, if the concrete contains granulated blast furnace slag or pulverised fuel ash.

Use of OPC grade 33 has almost vanished and the cement of grade 43 or 53 is being used in the mix designs. The water cement ratio is also kept low on durability and strength consideration. In Delhi, during the summer, the temperature goes as high as 45 degree, hence the rate of loss of moisture is quite high. The curing of the cement concrete, therefore, is very important.

CPWD specifications Clause 4.2.10 as well as Clause 13.5 of IS:456:2000 provide two methods of curing i.e. (i) Moist Curing and (ii) Membrane Curing. The method of moist curing is invoked predominantly in our construction works.

As provided in the specifications, the exposed surface of concrete shall be kept continuously in a damp or wet condition by ponding or by covering with a layer of sacking, canvass, hessian or similar materials and kept constantly wet for at least 7 days from the date of placing concrete in case of OPC and at least 10 days where mineral admixtures or blended cements are used. The period of curing shall not be less than 10 days for concrete exposed to dry and hot weather conditions. In case of concrete where mineral admixtures or blended cements are used, the minimum period of curing is to be observed upto 14 days.

Contd.....p/2

DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL

ANOORAG AHOOJA
Assistant Engineer
QAC-II/DDA

No: F7303672003/CE/QAC/234-A

Dated: 29th June, 2007

Q.C. CIRCULAR NO. 184

Sub: Providing the Weep Holes in Retaining Walls and Alike Structures.

The walls of storm water drains, the abutment of culverts and bridges etc. are normally designed as the retaining walls with moist backfill. Clause 6.2.4.14 of CPWD Specifications provides that in retaining walls and the like, where water is likely to accumulate, weep holes, 50 to 75 mm square shall be provided at 2 meters vertically and horizontally unless and otherwise specified. The lowest weep hole shall be at about 30 cm above the ground level. All weep holes shall be surrounded by loose stones and shall have sufficient fall to drain out the water quickly.

But it has been observed that the aforesaid provisions are not strictly adhered to. Either the weep holes are not provided; or if provided the size and spacing of holes are not uniform; the mouths of the holes are not finished properly during plaster; the slope in the weep holes is not maintained and the drainage filter not provided.

As the walls are not designed for submerged condition of backfill, there is every likelihood that the walls may fail in ~~containing~~ due to excessive water pressure, if no proper drainage/weep holes are provided.

It is therefore enjoined upon all the concerned that the aforesaid provisions are strictly adhered to while designing / constructing the retaining wall and alike structures.

For providing drainage filter behind the weep holes in storm water drains, the stone/brick ballast filled in a PVC wire mesh or chicken wire mesh can be provided.

Contd.....p/2

**DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL II**

No. F 73 (36) 2003/CE/QAC/2340 Dated 29/6/07

Q.A.C.CIRCULAR NO. 185


During the inspection of one of the work it has been observed that, the work of C/O stone masonry Boundary wall, and providing & fixing of M.S. grills thereon were being executed in two different contracts, but opening for concrete pedestals for grills not left, instead the wall were dismantled subsequently for the same. This not only amounted to splitting of work, but also led to infructuous expenditure. This infructuous expenditure could have been avoided, had both the work been done under one contract.

It is, therefore enjoined upon the field Engineer to ensure in future work. splitting of such work is not allowed.

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

Copy to:

- 1 .OSD to VC for information of the letter.
- 2 .PS to EM/DDA for information please.
3. All CE,s/DDA with the request to circular copies among their SE,s/EEs.
4. All EEs (QAC).


CHIEF ENGINEER(QAC)/DDA. 29/6/07

DELHI DEVELOPMENT AUTHORITY
CHIEF ENGINEER (QAC)

No.F.73(36)2007/CE/QAC/ 357

Dated: 30-8-07

Q.A.C. CIRCULAR NO.186

Sub: Plasticity Index Test for Binding Material used in WBM construction.

As per Clause 17.1.4 of CPWD specifications 1996 Vol.V, the binding materials to prevent reavelling of water bound macadam construction shall consist of a fine grained material possessing Plasticity Index value of 4 to 9 when the WBM is to be used as a wearing course, and 4 to 6 when WBM is being adopted as a sub-base/base course with bituminous surfacing on top of it. The Plasticity Index shall be determined in accordance with IS:2720(Pt.V). As per clause 404.2.7 of MORTH specification the maximum Plasticity Index allowed is 6, there is no lower limit.

Many a times, it has been observed by this Cell that the binding material is not got tested for Plasticity Index.

It is enjoined upon all concerned field units that Plasticity Index test for binding material used in WBM construction must invariably be got conducted as per clause 17.1.4 of CPWD Specifications 1996 Vol.V. Non compliance of the provisions shall be viewed seriously.

(ER. A.P. SINGH)
CHIEF ENGINEER(QAC).

Copy to:

1. Engineer Member, DDA.
2. O.S.D. to V.C for information of the latter.
3. All Chief Engineers, Project Manager(Flyover), Director(MM), DDA.
4. All Suptdg. Engineers i/c S.E (QAC), DDA.
5. All Executive Engineers i/c E.Es (QAC), DDA.


CHIEF ENGINEER (QAC)

**DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL – VI**

No. F73(36)07/CE(QAC)/DDA/ 1321

Dated 20.9.07

Q.C.CIRCULAR NO.187

SUB: - Obtaining the Manufacturers Test Certificate before acceptance of material.

In one of the inspection of the construction of fly-over by the Quality Assurance Cell, it has been observed that the tests certificates in respect to the each lot of Cement & Steel reinforcement procured by the contractor not obtained from the manufacture / supplier, as per clause-1015 of MORTH specifications. Further the sample for each lot was not collected at site and got tested before permitting their use.

It is enjoined upon all the field Engineers that, they shall obtain the test certificates of the manufacturer in respect to each lot/ consignment invariably from the agency, collect the sample at site for each lot and got conducted the required tests from the approved laboratories, in accordance with the relevant specifications, before such material is permitted to be used.

Non-compliance of instruction shall be viewed seriously.

(A.P.SINGH)
Chief Engineer
QAC/DDA.

Copy to :-

- 1.P.S. to E.M.,DDA for information of E.M.
- 2.OSD to V.C. for information of the later.
- 3.All Chief Engineers(Civil),DDA with spare copies for distribution
4. All Suptdg.Engineers(Civil),DDA. among SEs/EEs/AEs.
- 5.All Executive Engineers (Civil),DDA.


C.E./QAC/DDA.

**OFFICE OF THE CHIEF ENGINEER (QAC)
DELHI DEVELOPMENT AUTHORITY**

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

403

Dated:

5/10/07

Q.C. CIRCULAR NO. 188

Sub: Wrong recording of measurements.

It has been observed in one of the Quality Control inspection, that height of brick work in foundation was executed less than the requirement of structural drawing and in RCC work size of column footing was executed less than size of footing, as per structural drawing. However, the measurements were recorded as per the structural drawing instead of taking actual measurement at site and the cost adjustment was made by the field staff subsequently by way of Reduction Item Statement or Recovery Statement or T.E.O.

It is enjoined upon all the field engineers to ensure that the work should be executed strictly in accordance to the structural drawings and the measurements should be recorded as per the work actually executed at site keeping in mind the manual provisions. The dimensions executed beyond specified in the drawings, should be ignored. In case any discrepancy is noticed on a subsequent date, the revised measurements should be recorded and cost adjustment be made accordingly.

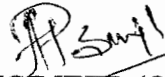
In this regard, attention of all concerned is drawn towards provisions laid down in specifications which outlines procedure to be followed for recording the measurements.

/

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

Copy to:

1. O.S.D. to VC.. DDA – for information of the latter.
2. PS to EM/DDA for information of EM please.
3. All CE(s)/DDA with spare copies to circulate copies among their SE(s)/EE(s).
4. All EE(s)/QAC/DDA.


5.10.07
CHIEF ENGINEER (QAC)/DDA

OFFICE OF THE CHIEF ENGINEER (QAC)
DELHI DEVELOPMENT AUTHORITY

ANOOORAG AHOOJA
Assistant Engineer
QAC-II/DDA

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

404

Dated: 5/10/07

Q.C. CIRCULAR NO. 189

Sub: Providing of manhole covers / openings in S.W. Drains.

In one of the inspection of QAC, it has been observed that circular manhole covers with frame were provided in the R.C.C. slab, covering the SW drains, though 1.20 meter wide opening with SFRC perforated covers were already provided at every 20 meter intervals. The provision of these SFRC perforated covers was adequate for cleaning operation, as well as, ventilation. The additional provision of providing circular manhole covers with frame increases the cost of work which could have been avoided.

It is enjoined upon all the NIT approving authorities to ensure that provision of circular manhole covers should not be made where the provision of openings with SRFC perforated covers has been made at regular internals.

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

Copy to:

1. O.S.D. to VC, DDA, for information of the latter.
2. PS to EM/DDA for information of EM please.
3. All CE(s)/DDA with spare copies to circulate copies among their SE(s)/EE(s).
4. SE (QAC) & All EE(s)/QAC/DDA for information and necessary action please. They should ensure compliance during their inspection.


CHIEF ENGINEER (QAC)/DDA

DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL

No F 73 (36) 2003 /CE (Q C) /DDA/

412

Dated:-

11/10/07

Q.C. Circular No- 190

Subject :- Brick work not done by using outside scaffolding.

During the inspection of works by QAC , it was observed that brick work was got done without providing outside scaffolding and only inside scaffoldings were provided. When pointed out by Q.A.C , it was replied that the work would be accepted at reduced rates . It is to point out that the purpose of providing outside scaffoldings is to ensure that the masonry work is erected in true plumb, line and level The reduction in rate defeats the very purpose, hence RIS in lieu of, is neither desirable nor acceptable.

It is enjoined upon, all EE's / SE's to ensure that instructions contained in Q.C. circular No-7 are strictly adhered to and in future no brick work without using outside scaffolding should be allowed.

(A.P.Singh)
Chief Engineer (QAC)
D.D.A.

Copy to :-

1. E.M, DDA for information .
2. OSD to VC , for information of the later.
3. All Chief Engineers (Civil) ,DDA.
4. All Superintending Engineers(Civil), DDA with spare copies for distribution among E.E.
5. All Executive Engineers (Q.A.C.) ,DDA.

Chief Engineer (QAC)

9.10.07

DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL

No. F 73 (36)/CE (QC)/DDA /

432

Date.

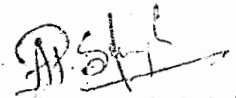
19.10.07

CIRCULAR NO.191

In absence of any BIS Code regarding paver blocks, a circular no.151 dated 17.1.05 was issued by CE(QA)/DDA with the approval of E.M.

Now, since BIS has published IS Code 15658-2006 on precast concrete blocks for paving-specification, this code supersedes the QC circular no.151 dated 17.1.05. The new code shall be referred by field/planning units and CE(QA)/Lab. for reference and guidance henceforth.

This issues with the approval of EM.



(ER. A.P.SINGH)

CHIEF ENGINEER (QAC)/DDA.

Copy to:-

1. O.S.D. to V.C/DDA for kind information of the letter.
2. P.S to E.M. for kind information of the letter.
3. All CE's/DDA for information and for circulation among their SEs & EEs.
4. Director (Hort) North & South.
5. Director (MM)P.M./F.OMC,GRP-I
6. S.E (QA)/DDA.


CHIEF ENGINEER(QAC)/DDA

1121/EE(QAC)II
29/11/07

**OFFICE OF THE CHIEF ENGINEER (QAC)
DELHI DEVELOPMENT AUTHORITY**

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

457

Dated: 2/11/07

Q.A.C. CIRCULAR NO. 192

Sub: Mode of Transportation of Ready Mix Concrete (RMC).

It has been observed in one of the Quality Control inspection, that ready mix concrete of M-25 Grade is directly poured in a tractor trolley from the batch mixing plant and taken to the place of casting. Transporting the ready mix concrete by tractor trolley to the place of casting/ pouring is not a proper mode of transportation, as there are chances of segregation of concrete, loss of ingredients, ingress of foreign matters etc.

It is enjoined upon all the field engineers to ensure that ready mix concrete is transported to the placement area by specified mode of transport mentioned in the clause No. 5.8.9.1 of CPWD specifications. Common among them are Transit Mixer, Buckets hauled by Trucks or crane hoist, pipe line by pumping and conveyor belts.

All variables in transportation, considering type and accessibility of placement/locations, distance, time, interval etc. shall be carefully studied before arriving at the method used.

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

Copy to:

1. O.S.D. to VC.. DDA – for information of the latter please.
2. PS to EM/DDA for information of EM please.
3. All CE(s)/DDA with spare copies to circulate copies among their SE(s)/EE(s).
4. All EE(s)/QAC/DDA.

[Signature]
CHIEF ENGINEER (QAC)/DDA

EE/QAC II

1121/52/2003/EE(QAC)II

For info
one copy to me
[Signature]
29/11

1152/EE(QAC)DDA
7/12/07

DELHI DEVELOPMENT AUTHORITY
CHIEF ENGINEER (QA)
QUALITY ASSURANCE CELL
VIKAS SADAN: NEW DELHI

No. F.73 (36)2003/CE (QAC)/DDA/

497

Dated: 30-11-07

QAC Circular No.-193

During the inspection of one of the works, it was observed that building in plan was in L-shape having dimensions of the two adjacent sides as 33m and 18m respectively and the clear projection forming L-shape as 12 m, but no expansion joint had been provided. Whereas, as per provisions in IS: 4326, clause 4.4.3, buildings having plans like L, T, E and Y shall preferably be separated into rectangular parts by providing separation sections at appropriate places except in the following situations-

- i) The buildings with small lengths of projections forming L, T, E or Y shapes need not be provided with separation section. In such cases the length of the projection may not exceed 15 to 20 percent of the total dimension of the building in the direction of the projection.
- ii) For buildings with minor asymmetry in plan and elevation separation section may be avoided.

When such issue was raised by QC Cell with SE, the T.S. authority, he never replied, but EE replied that there was no provision of expansion joints in the drawing, hence not provided. It appears that SE, the T.S. authority did not give due attention to the observation. He could have taken action to avoid recurrence of such deficiencies.

It is, therefore, enjoined upon all the concerned that the provisions contained in IS : 4326 are strictly adhered to while approving the Architectural/Structural drawings by the T.S. authorities. If any deficiency is observed by the field units during or before execution, the same should invariably be brought out to the notice of T.S. authorities for necessary action. Non-adherence to codal provisions shall be viewed seriously.

(Er. A. P. SINGH)
Chief Engineer (QA)
D.D.A.

Copy to-

- 1. Engineer Member, DDA;
- 2. OSD to VC for information of later;
- 3. All CEs, DDA with spare copies for circulating among the SEs/EEs.
- 4. All EEs/QAC, DDA.

AP Singh
Chief Engineer (QA) 29-11-07
D.D.A.

MSA / QA II
U.S.C.
PC note -
one copy to me
EE/QAC II
7/12

DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL

No F73 (36) 2003/ DDA / 541

Dated:- 20-12-07

Q.C. Circular No- 194

Subject :- Use of J.C.B. for disposal of surplus material.

It has been observed that J.C.B. is often allowed as Extra item for dressing of ground on hourly basis without linking the output with physical quantum of work. Such work could have been done by paying extra item per sq mtr basis , as the work is susceptible to measurements.

C.E. /S.E. are advised to take appropriate action to stop such practice in future and adopt acceptable mode of execution.

(A.P.Singh)
Chief Engineer (QAC)
D.D.A.

Copy to :-

1. P.S to E.M, DDA for information of E.M.
2. OSD to VC , for information of later.
3. All Chief Engineers (Civil) ,DDA. with spare copies for distribution.
4. All Superintending Engineers(Civil), DDA.
5. All Executive Engineers (Civil) ,DDA.

AP
JZ
vll

one copy to me

1/11/07

AP Singh
Chief Engineer (QAC) 17.12.07

DELHI DEVELOPMENT AUTHORITY
OFFICE OF THE CHIEF ENGINEER (QAC)

No: F73 (36)2003/DDA/


29

Dated: 07.01.08

QAC CIRCULAR No. 195

It has been noticed that most of the tube wells go out of order either due to lowering of water table or use of sub standard quality material particularly M.S. & G.I. pipes. This has not been found in the interest of DDA and fairness to the usage for public funds.

Chief Engineer/Superintending Engineers are advised to insist on use of only branded/graded pipes with ISI marking viz. JINDAL, PRAKASH SURYA, SWASTIK or TATA etc. It should also be mandatory on the part of the contractors to provide test certificates in respect of quality of pipe being used, even if it is ISI Mark.


(Shekhar Dey)
Chief Engineer (QAC)
DDA

Copy to:

1. OSD to VC for the information of latter
2. P.S. to EM/DDA for information of latter
3. Chief Engineers including Chief Engineer (Elec.)
- ✓ 4. Director (MM)
5. Project Manager (Fly Over) Gr. I & II
6. Director (Hort.) South & NORTH

Chief Engineer (Q.A.C)

DELHI DEVELOPMENT AUTHORITY
QUALITY ASSURANCE CELL

No.F73 (36)08/CE (QAC)/DDA/ 257


Dated: 9/5/08

Q.C. CIRCULAR NO. 196

During the inspection of works by Q.A.C. this has been observed that, in some of the cases materials / ingredients for concrete mix design are being sent directly by the contractors. Professors, Scientists, Test Houses are being approached by the agency for obtaining design mix on behalf of the Executive Engineers. This practice needs to be discontinued.

It is enjoined upon all that in future, procedures as elaborated in QC Circular no.173 shall be followed strictly for Concrete Mix Design keeping in view the following.

- i) Two sets of the samples of the ingredients of concrete shall be collected & sealed by the Executive Engineer. One set of the ingredients shall be forwarded directly along with the letter to the head of the Institute/Laboratory/Test House, listed in the contract document as per requisition proforma, i.e. Annexure - 1, circulated vide QC Circular No.173. Second set of the sealed ingredients shall be preserved at site to match/ensure that similar quality ingredients are used during the execution of work.
- ii) The charges towards Concrete Mix Design job shall be incurred by the Department or, Agency as per terms & conditions of the contract. Printed receipt shall be obtained from the Test house.


(J.M.JOSHI)
Chief Engineer (QAC)

Copy to: -

1. O.S.D. to V.C. / DDA for the kind information of the latter.
2. PS to EM/ DDA for the kind information of the latter.
3. All CE's/Project manager(Fly Overs)/Director(MM) DDA. with spare copies for the SEs & EEs under their zone.
4. All EEs, QAC, DDA.

Chief Engineer (QAC)/DDA

DELHI DEVELOPMENT AUTHORITY
CHIEF ENGINEER(QAC)

No.F.73(36)2003/CE/QAC/DDA / 393

Dated:12.6.08.

CIRCULAR NO.197

Subject: Empanelment of Testing laboratories.

In continuation to circular No.146 dated 7.9.02, 152 dated 10.3.05, 157 dated 26.5.05 and 160 dated 9.8.05, Engineer Member, D.D.A has accorded the approval for empanelment of the following laboratory for the purpose of chemical and mechanical testing of materials covered under NABL certification.

S. No.	Name of the Laboratory	Address
1.	BHARAT TEST HOUSE	454/2, 1 st floor Timber Market, near Azadpur Chowk, Delhi – 110033 Telephone no.27672629,27675696 Fax 91-11-27681204

The approval shall be valid for a period of two years from the date of issue of this circular. DDA reserves the right to depanel them without any notice.


(J.M. JOSHI)

CHIEF ENGINEER(QAC)/D.D.A.

Copy to:

1. O.S.D. to V.C/DDA.
2. Engineer Member/DDA.
3. All Chief Engineers/DDA.
4. All S.E.'s/DDA
5. Dir.(MM) & P.M.(Flyover)/DDA.
6. All Executive Engineers(QAC)/DDA.
7. All E.E.'s/DDA.
8. Circular File
9. Concerned lab.


CHIEF ENGINEER(QAC)/D.D.A.

708 / ECL(QAC) II
29/8/08
DELHI DEVELOPMENT AUTHORITY
OFFICE OF THE CHIEF ENGINEER(QAC)

No.F.73(36)2008/CE(QAC)/DDA / 495

Dated: August 14, 2008

CIRCULAR NO.198

This circular already stands issued Vide No.606 & Circulated vide No.EM1(17) 2007/ Cir(Inspn)/DDA/121 dt.7.1.08 and contents of the same are valid except that number is amended to avoid repetition with another circular issued earlier by CE(HQ) with the same number.

With the increase in the power of acceptance of tenders by various officers, a need has arisen to modify the inspection limit of QAC. The same is being notified as under:

S.No.	Name of Inspection by QAC	Civil works	Electrical/Hort. works
(i)	No routine inspection. SE concerned will be responsible for quality assurance of works.	Upto Rs. 15 lakhs	Upto Rs. 5 lakhs
(ii)	Routine inspection of 25-50% works. CE with the help of AE(QC)s shall be responsible for quality assurance of works. QAC Inspections will be only to monitor effectiveness of the CE's Inspection.	Rs15-100 lakh	Rs.5 lakh-30 lakh
(iii)	Routine inspection of 100% works	Above Rs.100 lakh	Appx. Rs30 lakh

1. For original work, the above limits will be judged on the basis of estimated cost or tendered cost or actual cost, whichever is higher. Splitting of works for the purpose of tenders will not be done without approval of competent authority. For the purpose of inspection the un-split cost of work will be the basis.

2. For maintenance work, the T.S will be accorded scheme wise, project wise. For example, say for maintenance of millennium park composite estimates will be sanctioned for full year by each discipline separately i.e. civil, electrical and horticulture. No splitting of the sub head is allowed. For one year, tenders shall be invited in one go as far as possible. In case of splitting, acceptance of tender shall be within the competency of the powers of acceptance of the complete sub head.

3. For horticulture work 25 inspections per year for electrical works 60 inspections per year and for civil work an average 50 inspections per zone per year shall be conducted. Efforts will be made to cover all the divisions with at least two works of each division.

4. Inspection programme will be prepared with the approval of CE(QAC). CE(QAC) shall have discretion to select any work, irrespective of cost etc.

This issues with the approval of VC, DDA.

(Er. J.M.Joshi)
Chief Engineer (QAC), DDA

99
52
Copy to

- QA II R
1/9/08
1. V.C, DDA
 2. E.M, DDA
 3. CVO, DDA
 4. All Chief Engineers (Elect), (EZ), (SEZ), (SWZ), (Ronini) and NZ
 5. Project Managers (Fly over I and II) DDA.
 6. Director (MM), DDA.
 7. Director (Hort) South and North, DDA.

Chief Engineer(QAC)

755/2E/QAC-II
24/9/08

DELHI DEVELOPMENT AUTHORITY
OFFICE OF THE CHIEF ENGINEER
QUALITY ASSURANCE CELL

No. F.73(36)2003/CE(QAC)/DDA/509

Dated: 12/9/08

Q.A.C CIRCULAR NO. 199

Subject: Facility for testing of Centrifugally Cast (Spun) iron pipes and Coarse Aggregate for Los Angeles Abrasion Value.

It is being apprised that the following new tests stand introduced in the "Material Testing Laboratory" of this cell situated at Khel Gaon, Shahpur Jat, New Delhi - 110049.

1. Centrifugally Cast (Spun) iron, spigotted & socketed, soil, waste, ventilating and rain water pipes of nominal diameter-50 to 150mm, for all tests as per IS:3989 except hydrostatic test.
2. Los Angeles Abrasion Value of Coarse Aggregate as per IS: 2386 (Part IV)

All heads of the respective zones of the DDA are requested to bring the same in the knowledge of their sub-ordinate staff with appropriate directions at their level so that the said available facility is effectively utilized.

A.K.H. m
(Er. A.K. RASTOGI)
CHIEF ENGINEER (QAC)/D.D.A.

Copy to:

1. OSD to VC, DDA for information of the latter.
2. PS to EM, DDA for information of the latter.
3. All Chief Engineers (Civil), DDA.
4. Director (MM), Project Manager (Flyover) Group-I & II and Director (Hort.) North & South.
5. SE (QAC) and All EES (QAC) DDA.

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UDC | *GAJ* *ff*

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24/9

A.K.H. m
CHIEF ENGINEER (QAC)/D.D.A.

DELHI DEVELOPMENT AUTHORITY
Quality Assurance Cell
(ISO 9001:2000 Certified)

IInd Floor, C-2 Block, Vikas Sadan, INA, New Delhi-110023

333
17-3-10

No. F 73(36)2010/CE(QAC)/DDA/168

Dated: 17/3/10

QAC CIRCULAR NO. 200

Subject: Existing facilities in Material Testing Laboratory of Quality Assurance Cell

During inspection of works, it has been often observed that the field staff is not aware of the existing facilities in Material Testing Laboratory of this cell situated at Khel Gaon, Shahpur Jat, New Delhi-110049 (Contact No. 011-26495752) resulting in non adherence to QAC Circular No. 153 regarding testing of materials in its totality. However new tests were introduced in past after circulation of proper information in this regard, yet in order to make it further convenient - a consolidated list of tests being conducted in this laboratory as on date is being enclosed as Annexure-A for ready reference. This list also incorporates tests for soils for determination of water content, liquid limit and plasticity index which are being introduced now.

This may please be ensured that it is widely read by all concerned.

Encl: As Above

(Er. J.S.Rai)
Chief Engineer (QAC), DDA

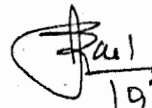
Copy to:

1. OSD to VC, DDA for information of the latter please.
2. PS to EM, DDA for information of the latter please.
3. All Chief Engineers, DDA.
4. Director (MM), Project Manager (Flyover) Group-I & II and Director (Hort.) North & South.
5. SE (QAC) and all EEs (QAC), DDA.

~~EE/QAC-I~~

AE (QAC) I

12/3


12/3/10
Chief Engineer (QAC), DDA



D.D.A.

TESTS BEING CONDUCTED IN QUALITY ASSURANCE CELL'S LABORATORY

- 1 CEMENT CONCRETE CUBES
 - a. Compressive Strength
- 2 BRICKS / BRICK TILES
 - a. Dimensional tolerance
 - b. Compressive Strength
 - c. Water Absorption
 - d. Efflorescence
- 3 CERAMIC TILES (Presently at abeyance- likely to start soon) :
 - a. Water Absorption
 - b. Crazeing
 - c. Chemical Resistance
- 4 WATER
 - Chemical Analysis
- 5 STONE AGGREGATES, ROAD METAL, GRANULAR SUB-BASE, WET MIX MACADAM, WATER BOUND MACADAM
 - a. Gradation
 - b. Volumetric Analysis
 - c. Aggregate Impact Value
 - d. Flakiness Index
 - e. Elongation Index
 - f. Combined Flakiness Index & Elongation Index
 - g. Los Angeles Abrasion Value
 - h. Ten Percent Fines Value
 - i. Water Absorption
- 6 BITUMINOUS CONCRETE
 - a. Bitumen Content
 - b. All other tests related with Stone Aggregates
- 7 FINE AGGREGATES (SAND)
 - a. Gradation
 - b. Silt Content
- 8 HARD / RUBBLE STONE
 - a. Water Absorption
- 9 MILD STEEL & ROLLED STEEL SECTIONS
 - a. Unit Weight
 - b. Dimensions
- 10 ALUMINIUM SECTIONS
 - a. Dimensions
 - b. Thickness of Anodic Coating (By Stripping Method)

Contd...page 2/2



D.D.A.

**TESTS BEING CONDUCTED IN
QUALITY ASSURANCE CELL'S LABORATORY**

- 11 TERRAZO & CHEQUERED TILES
 - a. Wet Transverse Strength
 - b. Water Absorption
 - c. Abrasion Resistance
- 12 FLUSH DOOR SHUTTERS
 - a. End Immersion Test
 - b. Glue Adhesion Test
 - c. Knife Test
- 13 PANELED SHUTTERS
 - a. Joinery Details
 - b. Moisture Content
- 14 CEMENT CONCRETE INTERLOCKING PAVER BLOCKS
 - a. Dimensions
 - b. Compressive Strength
 - c. Block Density
 - d. Water Absorption
- 15 WOODEN SECTIONS
 - a. Moisture Content
- 16 GALVANIZED ARTICLES
 - a. Thickness of Zinc Coating
 - b. Unit Weight
 - c. Dimensions
- 17 CEMENT CONCRETE HOLLOW BLOCKS
 - a. Dimensions
 - b. Compressive Strength
 - c. Density
- 18 CCI PIPE
 - a. Weight
 - b. Dimensions
 - c. Soundness
- 19 SOIL
 - a. Water Content
 - b. Liquid Limit
 - c. Plasticity Index

Srinivasan
12/3/10
Executive Engineer /
QAC Lab, DDA