

Tele/fax : 011-23793509

Policy Letter No 08 / 2009

Dte Gen Married Accn Project
E-in-C's Branch,
Integrated HQ of MoD (Army)
Kashmir House, Rajaji Marg
DHQ PO, New Delhi -110011

21338/Cement/P&S/34/MAP

17 Sep 2009

.....
.....

DG MAP (All Consultants & PMs)

GUIDELINES FOR USE OF CEMENT IN MAP WORKS

1. Further to DG MAP Policy letter No 03/2006 dated 20 Mar 2006 and Policy No 28/2008 dated 24 Mar 2008.
2. The following types of cement can be used in structural / Non structural works of MAP:-
 - (a) Ordinary Portland Cement grade 43 (IS:8112-1989)
 - (b) Ordinary Portland Cement grade 53 (IS:12269-1987)
 - (c) Portland Pozzolana Cement (IS:1489-1991 Part-I) with fly ash content of grade 43 and 53)
3.
 - (a) **Structural Work**. Only one type of cement will be used in one building. Mixing of various types of cement will be not allowed in one building. However, different type of cement can be used in different buildings.
 - (b) **Non Structural Work**. As far as possible only one type of cement will be used in one building, for Structural and Non Structural Work. However in exceptional cases different types of cement can be used in same building for non structural work such as plaster, flooring, PCC etc, with prior permission of PM (MAP).
 - (c) In case more than one type of cement is used in any work, a record shall be kept showing the locations and the type & cement used.
4. **Use of PPC** While using PPC, the following conditions will generally be met :-
 - (a) Strength criteria for PPC cement will be as per IS-8112-1989.
 - (b) Stripping time shall be minimum 14 days.

Contd..2/-

- (c) Para 3 shall be enforced.
- (d) Mandatory certificates of testing and quality assurance will continue to be submitted as hither-to-fore, with fly ash content as per IS 1489-1991-Part-I.
- (e) The specifications for use of PPC would be compiled and incorporated suitably by Contract Section for inclusion in tender documents.

5. **Control on Cement Supplied by Contractor**

(a) **Procurement.** The cement supplied by the Contractor will only be procured from main producers of cement (**as per list of cement manufacturers at Appx A**). The particulars of manufacturers of cement alongwith the date of manufacture shall be obtained from the contractor for each lot of cement separately. This shall be confirmed from the cement bags brought to site by the contractor. The documents in support of the purchase of cement shall be recorded and verified by DEPMC and PMs of DG MAP.

(b) **Testing.** The manufacturer will carry out inspections and testing of cement in accordance with the relevant BIS provisions. The Contractor shall submit the **Manufacturer's Test Certificate in original** alongwith the Test Sheet giving the result of each physical test as applicable and chemical composition of the cement or authenticated copy thereof, duly signed by the manufacturer with each consignment. The DEPMC and PMs shall record these details in the **Cement Acceptance Register,** as given at **Appx 'B'** after due verification. The PMs shall also organize independent **Physical Tests** for each lot of cement from NABL Laboratories as National Test House, SEMT Wing CME, Regional Research Laboratories, IITs, Govt Engg Colleges and National Institutes of Technology as per IS:3535 (Method of sampling hydraulic cement) and IS 4032-1985 (Method & Chemical Tests for hydraulic cement), IS:4031 (Method of physical test for hydraulic cement), and shall be recorded in the respective portion of **Appx 'B'** In order to undertake departmental testing, requisite facilities shall be organized by the Contractor. The cost of transportation and testing shall be borne by the Contractor.

(c) **Storage.** Cement shall be stored in leak proof cement godown over dry platform at least 20cm high from floor level in such a manner so as to prevent deterioration due to moisture or intrusion of foreign matters. The cement shall be stacked at least 20cm above floor and away from walls. The stacking of Cement will not be more than 10 bags high. It shall be ensured that tested and untested cement are segregated and stored separately with distinct identification. PPC and OPC shall also be stored separately. Maximum period of storage of cement for structural work shall be two months and for all other works three months.

(d) **Documentation.** The Contractor shall submit original vouchers from the manufacturer for the total quantity of cement supplied under each consignment to be incorporated in the work. All consignments received at the work site shall be inspected by PM and documents verified before acceptance. The original vouchers and Test Certificates shall be defaced by PM, signed by Contractor and kept on record in the office of PM duly authenticated and with cross reference to the Control Number recorded in the Cement Acceptance Register. This Register will be signed by JE(in case posted), DEPMC representative, PM and Contractor. The Accepting Officer may order a Board of Officers for random check of cement and verification of connected documents. The entire quantity of cement shall also be suitably recorded in the Measurement Book (not to be abstracted) for record purposes before incorporation in the work and shall be signed by the DEPMC, Project Manager and the Contractor. These documents shall be produced to the all visiting officers from HQ MAP.

6. **Contract Specifications.** Particular specifications for supply of cement by the contractor shall be carefully framed so that no ambiguity is left with regard to its quality, testing, storage and source of procurement in the contract. Specifications should cover the entire relevant requirement specific for the particular work and should not have general specifications covering all types of works and grades of cement. For details on Delivery, Inspection, Testing facilities, identifications and marking of Cement bags by the Manufacturers, reference be made to the relevant BIS Codes. Following points, inter alia, shall be suitably covered in the Contract specifications :-

(a) Source of Procurement.

(b) Testing and Test Certificates. Also provision / procedure should be made if test results of sample are not within the acceptable limits.

(c) The cost of all tests carried out on cement before acceptance for incorporation in the work shall be borne by the contractor whether the results are acceptable or not.

(d) Schedule of supply shall be so ensured and specified so as to match with the progress contemplated in the CPM chart prepared for that project.

7. Procurement of Cement will be restricted to manufactures of OPC & PPC as specified in **Appx 'A'** enclosed.

Contd ..4/-

8. Consultant and Project Manager will ensure that correctness of source of cement, proper stacking, proper age of stock in use are incorporated and mandatory tests for assuring qualitative standard are carried out. Record of the same shall be maintained. Performance feedback shall be submitted by Project Managers during execution and defect liability period. Defects / discrepancy, difficulties noticed shall also be promptly reported to HQ DG MAP for considering continuation of the products for MAP.

9. Executing Agencies and Planning Team including Contract Section of DG MAP must ensure implementation of the above specifications in the project DPRs. For projects where DPRs are approved, provisioning may be ensured at tender / execution stage. **For Projects where contracts have been concluded, changes shall be carried out on case to case basis, depending upon contractual implication, financial health, minus price adjustment, present progress of the project in close coordination with planning Team of DG MAP and prior approval of Accepting Officer.**

10. This policy shall be superseded all the earlier policies issued by DG MAP on the above subject.

(Sanjeev Gupta)
Lt Col
SO1 (P&S)
For DG MAP

Encl : As above

Internal

Plg Team A,

Plg Team B

Contract Section Team A,

Contract Section Team B

Appx 'A'

(Refer HQ DG MAP letter No
21338/Cement/P&S/34 /MAP
dated 17 Sep 2009

LIST OF APPROVED MANUFACTURE FOR CEMENT

For OPC and PPC

- (a) The Associated Cement Companies Ltd.
- (b) Grasim Industries Ltd
- (c) Ultra Tech Cement
- (d) The India Cement
- (e) Dalmia Cement
- (f) Andhra Cement Ltd
- (g) Century Cements
- (h) Saurashtra Cement
- (j) Binani Cement
- (k) Madras Cement
- (l) Mangalam Cement
- (m) Birla Corp Ltd
- (n) Orient Cement
- (o) Lafarge Cement
- (p) Shree Cement
- (q) JK Cement
- (r) JK Lakshmi Cement
- (s) Jaypee Rewa Cement
- (t) Ambuja Cement Ltd
- (u) Star Cement Meghalaya (to be used in Shillong area only)
- (v) NK Cement Pvt Ltd (OPC & PPC for North-Eastern region and only OPC for rest of the country)
- (w) Dhuruv Industrial Co Ltd
- (x) Shree Guru Kripa Cement (Pvt) Ltd, Jammu

In addition to the above, OPC only can be procured from the following producers also:-

- (a) J&K Cement Corporation Kathua, J&K (For Northern Command only)
- (b) Shiva Industries Kathua, J&K (For Northern Command only)
- (c) Star Cement Meghalaya
- (d) Meghalaya Cement

NOTING SHEET

21367/P&S/Ph-II/MAP

-7-

1. Ref note 6 ante.
2. Checked from E-in-C's Branch, no new approval of cement manufacturers have been issued. All approved makes are incorporated in the draft policy.
3. The remarks on the previous draft have been corrected.
4. Draft consolidated policy duly amended is put up for perusal and approval please.

(Sanjeev Gupta)
Lt Col
SO1 (P&S)

_____ Sep 2009

DG

CEMENT SUPPLY & ACCEPTANCE REGISTER

1. CA No & Name of Work
2. Control No*
3. Name of Manufacturer/Brand Name/Gde of Cement (a) Manufacturer _____ (b) Brand _____ (c) Grades
4. Qty of cement & Lot No/Week No (in Bags): (Qty (b) Lot No/Week No
5. Manufacturer's test certificate No
6. Random Test Details (a) Physical test report from vide their letter No (Name of approval Lab/Engg College)
 - (b) Chemical test report from vide their letter No (Name of approval Lab/Engg College)
7. Details of Physical & Chemical properties:

	Physical Requirement (As per IS 4031)							Chemical Requirements (As per IS 4032)										
	Specific surface Area (M ² kg)	Soundness by Le Chatellar	Soundness by Auto Clave	Initial Setting Time (Minutes)	Final Setting Time (Minutes)	Compressive Strength (MPa)			Temp during testing ° C	Standard Consistency(%)	Lime Saturation Factor (Ratio)	Alumina Iron Ratio (Ratio)	Insoluble Residue (%)	Magnesium (%)	Sulphuric Anhydride (%)	Loss on ignition (%)	Alkailes (%)	Chlorides (%)
						03 days	07 Days	28 Days										
As per relevant IS																		
As per manufacturer's test certificate																		
As per random test certificate																		

Remarks with Signature

Accepted / Rejected

Contractor

Junior Engineer

Resident Engineer

Project Manager

Remarks of BOO / Inspecting Officer / DG MAP

* To be allotted serially by PM consignment wise.