



Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
**OFFICE OF THE SECRETARY**  
Manila

097.12DPWH  
07.06.2012

JUL 06 2012

DEPARTMENT ORDER )  
No. 48 )  
Series of 2012 07.06.12 )  
SUBJECT: **AMENDING DEPARTMENT ORDER NO. 173,  
SERIES OF 2002, RE: GUIDELINES ON THE  
ACCREDITATION OF PRIVATE TESTING  
LABORATORIES**

To ensure a more effective and better quality control of construction materials in the implementation of various DPWH projects, and to strengthen the existing criteria in the Accreditation of Private Testing Laboratories, Department Order No. 173, Series of 2002, "Guidelines on the Accreditation of Private Testing Laboratories" is hereby amended specifically Section 4, Application for the Certificate of Accreditation to include item 4.7 which shall read:

- 4.7 Applicants for initial and/or renewal of Certificate of Accreditation of testing cement products shall be required to undergo the Proficiency Testing Program conducted by the Cement Manufacturers Association of the Philippines (CeMAP) to enhance their capabilities to test cement in accordance with the prescribed standards.

Except for the above amendment, the provisions of Department Order No. 173, Series of 2002 shall remain in force.

This Order shall take effect immediately.

  
**ROGELIO L. SINGSON**  
Secretary



WIN2101823

# **GUIDELINES FOR THE ACCREDITATION OF PRIVATE TESTING LABORATORIES**

## **1. SCOPE AND FIELD OF APPLICATION**

- 1.1 This document prescribes the rules and regulations governing the accreditation of private testing laboratories that can perform the testing of materials for and in behalf of the Department. It includes their organizations, staff qualifications, testing premises, test equipment, calibration, records keeping and the issuing of reports.
- 1.2 The aim of the document is to set out criteria, the observance of which will ensure that the work of the testing laboratory is conducted;
  - 1.2.1 With technical and commercial integrity.
  - 1.2.2 With a known level of accuracy in all tests and measurements (i.e., the uncertainty is known).
  - 1.2.3 In accordance with guidelines and standards of the Department.

## **2. DEFINITION**

- 2.1 Testing Laboratory – A laboratory which measures, examines, tests, calibrates or otherwise determine the characteristics or performance of materials or products,
- 2.2 Test Method – A defined standard technical procedure to determine one or more specified characteristics of material or product.
- 2.3 Test Report – A document which presents the test results and other information relevant to the test.
- 2.4 Department – Referred herein as the Department of Public Works and Highways.
- 2.5 Bureau of Research and Standards (BRS) – A newly created Bureau, under Executive Order 124 mandated to develop and set effective standards and reasonable guidelines to ensure the safety of all infrastructure facilities in the country and to assure efficiency and proper quality in the construction of government public works.
- 2.6 Certificate of Accreditation – A document signed by the Director of BRS issued to testing laboratories authorizing/accrediting them to perform the required tests for and in behalf of the DPWH.

### **3. RESPONSIBILITIES OF THE BRS**

- 3.1 Grant Certificate of Accreditation to applicant Laboratories that are capable of complying with these guidelines.
- 3.2 Assesses the applicant laboratories as to their compliance with these guidelines.
- 3.3 The BRS at its discretion may:
  - 3.3.1 Increase or reduce the scope of accreditation.
  - 3.3.2 Revoke the Certificate of Accreditation.
  - 3.3.3 Reconsider, after due notice, the accreditation in the light of notified changes/additions in personnel, equipment and/or system.
  - 3.3.4 Shall prepare a directory of accredited private testing laboratories. Such directory shall be made available to prequalified contractors of DPWH.
  - 3.3.5 Gives due notice to an already accredited laboratory of any intended changes/adjustments appertaining to the guidelines. The Certificate holder shall be given such time as in the opinion of the BRS is reasonable to carry out the necessary adjustments to its procedures. The testing laboratory shall notify the BRS when such changes/adjustments have been completed. BRS shall conduct an assessment of the laboratory to check compliance with the changes.
  - 3.3.6 Shall collect accreditation fees in accordance with the rules and regulations on fees.

### **4. APPLICATION FOR THE CERTIFICATE OF ACCREDITATION**

- 4.1 The application for the grant of a Certificate of Accreditation shall be accomplished on BRS Form No. 1, obtainable from BRS with a non-refundable fee of P200.00. Said application shall be filed with the BRS.
- 4.2 The testing laboratory shall make available to the BRS Director or his duly designated/authorized representative such data, information as may be required in connection with the processing of the application for accreditation or in the re-assessment of its testing competence during the annual assessments.
- 4.3 In the event that BRS, after assessing the laboratory, is satisfied that the testing laboratory complies with these guidelines, then, it shall issue the Certificate of

Accreditation. The Certificate shall indicate the specific type/s of test that can be done by the laboratory in accordance with existing standards of the DPWH.

- 4.4 Once a Certificate is issued, it shall remain valid for one year renewable every year thereafter upon application.
- 4.5 The Certificate of Accreditation shall be non-transferable.
- 4.6 A Certificate of Accreditation may be relinquished by a certificate holder upon giving one month notice in writing.
- 4.7 Applicants for initial and/or renewal of Certificate of Accreditation of testing cement products shall be required to undergo the Proficiency Testing Program conducted by the Cement Manufacturer's Association of the Philippines (CeMAP) to enhance their capabilities to test cement in accordance with the prescribed standards.

## **5. APPLICATION DENIED OR CERTIFICATE REVOKED/CANCELLED**

- 5.1 Any Certificate granted under provisions of these guidelines shall be revoked or cancelled on the following grounds:
  - 5.1.1 The certificate holder fails to comply with any or all of the terms and conditions of the certificate as provided for in these guidelines.
- 5.2 No certificate shall be cancelled or annulled unless the Director of BRS has served a notice of his intention to do so, stating therein the grounds for the contemplated action, granting the certificate holder the opportunity to be heard.
- 5.3 The decision of the BRS under these guidelines shall be appealable within 15 days upon receipt of such decision in writing to the BRS of his desire to appeal the decision.. The decision of the Director of BRS denying the application shall be considered final for failure to appeal within the 15 days period. In case of appeal, meeting between the BRS and the applicant shall be held on a date not less than 15 days and not more than 100 days after the receipt of the notice, and the applicant nor certificate holder so appealing shall be given at least 7 days notice of the time and place of such meeting. The decision of the Director of BRS shall be final.

## **6. ORGANIZATION OF THE TESTING LABORATORY**

- 6.1 The testing laboratory shall:
  - 6.1.1 Be legally identifiable.

- 6.1.2 Have an organizational structure, including quality system that enables it to maintain the capability to perform satisfactory the technical functions for which accreditation is granted.
- 6.1.3 Be enable to demonstrate, on request from the persons assessing its competence, that it is capable of performing the tests representatives of those for which it is seeking accreditation.
- 6.1.4 Be legally organized so as not to subject staff members to undue pressure or inducement that might influence their judgement or results of their work.
- 6.1.5 Be structurally organized in such a way that each staff member is aware of both the extent and the limitations of his area of responsibility.
- 6.1.6 Have a technical manager (however named) who has overall responsibility for the technical operations of the laboratory.
- 6.1.7 Have adequate security rules and measures for the protection of proprietary rights and confidential information.

Note: In small laboratories, the organizational structure may fulfill the requirements of this clause in a simplified way.

## **7. QUALITY SYSTEM**

- 7.1 The laboratory shall operate an internal quality assurance programme appropriate to the type, range and volume of work performed. The quality assurance programme shall be documented in a quality manual which is available for use by the laboratory staff. The quality manual shall be maintained and updated by a responsible member of the laboratory staff. The person or persons responsible for quality assurance within the laboratory shall be designated by the laboratory management and have direct access to top management.
- 7.2 The quality shall contain information regarding:
  - 7.2.1 The structure of the laboratory (organizational charts)
  - 7.2.2 The operational and functional duties and services pertaining to quality, so that each person concerned will know the extent and the limits of his responsibility.
  - 7.2.3 General quality assurance procedures.
  - 7.2.4 Quality assurance procedures specific for each test, as appropriate.

7.2.5 Where appropriate, proficiency testing, use of reference materials, etc.

7.2.6 Satisfactory arrangements for feedback and corrective action whenever testing discrepancies are detected.

7.2.7 Procedure for dealing with technical complaints.

7.3 The quality system shall be systematically and periodically reviewed by or on behalf of management to ensure the continued effectiveness of the arrangements, and corrective action initiated. Such reviews shall be recorded together with details of any corrective action taken.

## **8. STAFF**

8.1 The staff shall have the necessary education, training, technical knowledge and experience for their assigned functions.

8.2 There shall be a job description for each senior technical position category which includes the necessary education, training, technical knowledge and experience.

8.3 The proportion of supervisory to non-supervisory staff shall be such as to ensure adequate supervision.

8.4 Suitable staff shall be nominated to deputies for the senior technical and quality system management staff in their absence.

8.5 Information on the relevant qualifications, training and experience of the technical staff shall be maintained by the laboratory.

## **9. TESTING AND MEASURING EQUIPMENT**

9.1 The testing laboratory shall be furnished with or have access to all items of equipment required for correct performance of the tests and measurements for which it is accredited.

9.2 All equipment shall be properly maintained to ensure protection from corrosion and other causes of deterioration. Instructions for a proper maintenance procedure for those items of equipments which required periodical maintenance shall be available.

9.3 Any item of the equipment which has been subjected to overloading or mishandling or which gives doubtful results or has been shown by calibration or otherwise to be defective, shall be taken out of service and clearly labeled until it has been repaired and then shown by test of calibration to be performing its function satisfactorily.

- 9.4 Records shall be maintained of each major items of equipment. Each record shall include:
- 9.4.1 The name of item of equipment.
  - 9.4.2 The contractor's name and type identification and serial number.
  - 9.4.3 Date received and date placed in service.
  - 9.4.4 Current location, where applicable.
  - 9.4.5 Details of maintenance.
- 9.5 In the case of measuring equipment, the record shall include:
- 9.5.1 Date of last calibration and calibration reports.
  - 9.5.2 The maximum period of time between successive calibrations.
- 9.6 A label or tag indicating the date of the calibration should be attached to the equipment requiring the calibration.

## **10. CALIBRATION**

- 10.1 Measuring and testing equipment used in the testing laboratory shall be calibrated where appropriate before being put into service and thereafter according to an established programme.
- 10.2 The overall programme of calibration of equipment shall be designed and operated so as to ensure that measurements made in the testing laboratory are traceable (where the concept is applicable) to national standards of measurements specified by the International Committee of Weights and Measures. Where the concept of traceability to national or international standards of measurement is not applicable, the testing laboratory shall provide satisfactory evidence of correlation or accuracy in a suitable programme of interlaboratory comparisons).
- 10.3 Reference standards of measurement held by the laboratory shall be used for calibration only and for no other purpose.
- 10.4 Reference standards of measurements shall be calibrated by a competent body that can provide traceability to a national or international standard of measurement.
- 10.5 Where relevant, in-service testing equipment shall be subjected to checks between regular recalibrations.

## **11. TEST METHODS AND PROCEDURES**

- 11.1 The testing laboratory shall have adequate documented instructions on the use and operation of all relevant equipment, on the handling and preparation of test items (where applicable), and on standard testing techniques, where the absence of such instructions could jeopardize the efficacy of the testing process. All instructions, standards manuals and reference data relevant to work of the testing laboratory shall be maintained up-to-date and be readily available to the staff.
- 11.2 The testing laboratory shall use methods and procedures required by the specification against which the test items are to be tested. The specification shall be available to the staff performing the test.
- 11.3 Where it is necessary to employ test methods and procedures which are non-standard, these shall be fully documented.
- 11.4 All manual calculation and data transfers shall be subject to appropriate checks.
- 11.5 Where these results are derived by electronic data processing techniques, the stability of the system shall be such that the accuracy of results is not affected. This generally implies an ability to detect malfunctions in the hardware during programme execution and take appropriate action.

## **12. ENVIRONMENT**

- 12.1 The environment in which the tests are undertaken shall be such that it will not invalidate the test results or adversely affect the required accuracy of measurement. The testing premises shall be protected as required from excessive conditions such as excessive temperature, dust, moisture, steam vibration, electromagnetic disturbance, interference and shall be maintained accordingly. They shall be sufficiently spacious to limit the risk of damage or danger and to allow operators to make practical and precise movements. The premises shall have the equipment and energy sources needed for the testing. When the testing so requires, they shall be equipped with devices to monitor the environmental conditions.
- 12.2 Access to and use of all test areas shall be controlled in a manner appropriate to their designated purpose and entry by persons external to the laboratory shall be defined.
- 12.3 Adequate measures shall be taken to ensure good housekeeping in the testing laboratory.

## **13. HANDLING OF ITEMS TO BE TESTED**

- 13.1 A system for identifying the samples or items to be tested or calibrated shall be applied, either through documents or through marking, to ensure that there can be no confusion



regarding the identity of the samples or test items and the results of the measurements made.

13.2 A procedure shall exist for bonded storage of items where necessary.

13.3 At all stages of storing, handling and preparation for test, precautions shall be taken to prevent damage to items, for example, contamination, corrosion or the application of stresses, any of which would invalidate the results. Any relevant instructions provided with the item shall be observed.

13.4 All samples to be tested should be transported and submitted by the government authorized representative involved in the implementation of the project.

13.5 There shall be clear rules for the receipt, retention and disposal of samples.

#### **14. PERFORMANCE/WITNESSING OF TEST (As amended by DO # 190, series of 1991)**

14.1 Accredited Private Testing Laboratories owned by companies involved in the supply of construction materials for DPWH projects, shall engage the services of another private testing laboratory accredited by the DPWH in testing the samples of the said materials to maintain check and balance.

14.2 All tests on construction materials for DPWH projects shall be witnessed by the authorized government representative involved in the project implementation.

#### **15. RECORDS**

15.1 The testing laboratory shall maintain a record system to suit its particular circumstances and comply with any existing regulations. It shall retain on record all original observations, calculations and derived data, calibration records and the final test report for an appropriate period. The records for each test must contain sufficient information to permit satisfactory repetition of the test.

15.2 All records and test reports shall be held secure and in confidence to the client, unless otherwise required by the law.

#### **16. TEST REPORTS**

16.1 All test report forms shall have designated numbers and be accountable to the laboratory doing the test, following the BRS standard format.

16.2 The work carried out by the testing laboratory shall be covered by a report which accurately, clearly and unambiguously presents the test results and all other relevant information.

16.3 Each test report shall include at least the following information:

16.3.1 Name and address of testing laboratory

16.3.2 Unique identification of report (such as Laboratory Number or Laboratory Report Number) on each page of the report.

16.3.3 Name and address of client.

16.3.4 Description and identification of the test item.

16.3.5 Date of receipt of test item and date (s) of performance of test as appropriate.

16.3.6 A statement of the effect that the test results relate only to the items tested.

16.3.7 Identification of the test specification, method procedures.

16.3.8 Description of sampling procedure, where relevant.

16.3.9 Any deviations, additions to or exclusions, and any other information relevant to a specific test.

16.3.10 Disclosure of any non-standard test method or procedure utilized.

16.3.11 Measurements, examinations and derived results, supported by tables, graphs, sketches and photographs as appropriate, and any failures identified.

16.3.12 The signatures and title of person(s) accepting technical responsibility for the test report and date of issue.

16.3.13 A statement that the report shall not be reproduced without the approval of the testing laboratory.

16.4 Corrections or additions to a test report after issue shall be made only by a further document suitably marked, e.g. "Supplement to test report serial number ----- (or as otherwise identified)", and shall meet the relevant requirements of the preceding paragraphs.

16.5 The test report should indicate only the result of the test/s conducted on the materials. Evaluation as to acceptability of the materials tested shall be done by the implementing office on the DPWH.

## **17. TERMS AND CONDITIONS OF THE CERTIFICATE**

17.1 The following terms and conditions shall be binding to all certificate holders. Any infraction thereof shall constitute sufficient grounds for cancellation or revocation of the certificate.

17.1.1 The certificate holder shall at all times comply with these guidelines.

17.1.2 The certificate holder shall claim that it is accredited only with respect to the type of test performed in accordance with these guidelines.

17.1.3 The certificate holder shall not use the certificate in any manner wherein the BRS may reasonably object and shall not make any statement relevant to the authority of the certificate holder in a way which in the opinion of the BRS may be misleading.

17.1.4 Upon termination of a Certificate of Accreditation, (however determined) the testing laboratory forthwith shall discontinue its use and all advertising matters which contain any reference thereto.

17.1.5 The Accredited Laboratory shall make it clear in all contracts with its clientele other than the BRS, that a satisfactory test report shall in no way imply that the product so tested is approved the BRS and shall not be used nor be authorized to use, for promotional or publicity purposes by the said client without prior written permission from the BRS in order to ensure that there is no misrepresentation of the BRS position.

## **18. ANNUAL ASSESSMENT BY THE BRS**

18.1 Visits - A duly authorized assessor of the BRS shall be permitted to visit the testing laboratory periodically (once per year, minimum) but at the discretion of the BRS to determine that the conditions upon which the Certificate was granted are being observed and carried out.

18.2 Monitoring Testing and Reporting Procedures - In order to monitor testing and reporting procedures, the BRS may require the testing laboratory to carry out from time to time tests and prepare reports on test samples submitted by the BRS.

18.3 Confidentiality - All information obtained by the BRS in the operation of this scheme of laboratory accreditation will be treated as confidential between the private testing laboratory and the BRS. Such information will not be divulged without the written permission of the testing laboratory manager.