

REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS OFFICE OF THE SECRETARY

MANILA

3 1 JAN 2018



SUBJECT: Amending the Guidelines on the Accreditation of Private Testing Laboratories

To further ensure the effective quality control of materials in the implementation of various DPWH projects, these guidelines on the accreditation of private testing laboratories are hereby amended.

1.0 SCOPE AND FIELD OF APPLICATION

- 1.1 This document prescribes the rules and regulations governing the accreditation of private testing laboratories, laboratories of Provincial Engineering Offices and universities/colleges that can perform the testing of materials for Government infrastructure projects. It includes their organizations, staff qualifications, testing premises, test equipment, calibration, records keeping and the issuance 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 efficiently;
 - 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 the prescribed guidelines and standards of the Department.
 - 1.2.4 In compliance with the new codes, laws and guidelines set by other Government agencies relevant in the accreditation of private testing laboratories.

2.0 DEFINITION

- 2.1 Bureau of Research and Standards (BRS) A Bureau created under Executive Order No. 124 which is 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.
- 2.2 Certificate of Accreditation A document signed by the Director of BRS issued to testing laboratories authorizing/accrediting them to perform the required tests for Government infrastructure projects.

- 2.3 Certificate of Authority to Operate Chemical Laboratories– a certificate given to any firms, corporations and government agencies to operate chemical laboratory or engage in the practice of chemistry or chemical analysis in the Philippines as defined in R.A. No. 10657.
- 2.4 Chemical Analysis refers to a physio-chemical or biochemical procedure which involves activities defined in R.A. No. 10657.
- 2.5 Chemical Laboratory refers to a facility where chemical analysis and chemical synthesis are performed. Such activities carried out outside of a chemical laboratory, for example, a factory, mobile laboratory or field analysis, shall likewise be considered a chemical laboratory.
- 2.6 Department Referred herein as the Department of Public Works and Highways (DPWH).
- 2.7 Pollution Control Officer (PCO) a technical person competent in pollution control and environmental management, performing the duties and responsibilities in a particular establishment and officially accredited by the Environmental Management Bureau (EMB) Regional Office to perform such responsibilities.
- 2.8 Registered Chemical Technician refers to any person who assists in the routine work of chemical analysis, chemical synthesis, and sale of chemicals and chemical equipment/ apparatus and who is duly registered as such with the Board and the Commission. Chemical technicians may only work or practice under the supervision of a registered chemist.
- 2.9 Registered Chemist refers to any person who is engaged in the professional practice of chemical analysis, as defined in R.A. No. 10657 and who is duly registered with the Board of Chemistry.
- 2.10 Republic No. 10657 An act regulating and modernizing the practice of Chemistry in the Philippines, otherwise known as the "Chemistry Profession Act".
- 2.11 Testing Laboratory A laboratory which measures, examines, tests, calibrates or otherwise determine the characteristics or performance of materials or products.
- 2.12 Test Method A defined standard technical procedure to determine one or more specified characteristics of the material or product.
- 2.13 Test Report A document which presents the test results and other information relevant to the test.

3.0 RESPONSIBILITIES OF THE BRS

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- 3.1 Grant Certificate of Accreditation to applicant Laboratories that are capable of complying with these guidelines.
- 3.2 Assess 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.

4.0 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 (see **Annex A**), obtainable from BRS with a non-refundable fee of Php 1,000.00. 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 reassessment 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 (see **Annex B**). 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 two (2) years renewable every other 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 participate in 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.

- 4.8 Laboratories performing chemical tests shall apply for a Certificate of Authority to Operate Chemical Laboratories from the Professional Regulation Board (PRC) as per IRR of R.A No. 10657.
- 4.9 Contractors with laboratories capable of testing construction materials should also secure the accreditation from BRS to ensure the highest standard in quality control implementation and that they should undergo the same proficiency testing joined by DPWH Private Testing Laboratories.
- 4.10 A Certificate of Accreditation issued to Private Testing Laboratories shall only be used or valid for the specific address where the laboratory is situated. In case of transfer of location/address, they shall notify or inform the BRS accordingly.

5.0 APPLICATION DENIED OR CERTIFICATE REVOKED/CANCELLED

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- 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.
 - 5.1.2 Upon investigation/ inspection of the BRS, the certificate holder is found to have issued fraudulent/tampered test results to its clients.
 - 5.1.3 Issue test reports to DPWH projects on tests not included in their accreditation.
- 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 fifteen (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 fifteen (15) days period. In case of appeal, a meeting between the BRS and the applicant shall be held on a date not less than fifteen (15) days and not more than one hundred (100) days after the receipt of the notice, and the applicant or the certificate holder so appealing shall be given at least a seven (7) day notice of the time and place of such meeting. The decision of the Director of BRS shall be final.

6.0 ORGANIZATION OF THE TESTING LABORATORY

6.1 The testing laboratory shall:

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- 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 able to demonstrate, as required by the BRS Inspectors, its capability/proficiency to perform the representative tests on the materials samples 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 judgment 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/her 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.
- 6.1.8 Ensure that its personnel are aware of the relevance and importance of their activities and how they can contribute to the achievement of the objectives of the organization.
- 6.1.9 In cases where testing involves chemical analysis or use of chemicals, a Registered Chemist shall take charge and supervise all activities in the chemical laboratory as prescribed in R.A. No. 10657.

7.0 QUALITY SYSTEM

- 7.1 The laboratory shall maintain an internal quality assurance program appropriate to the type, range and volume of work performed. The quality assurance program 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 said quality manual shall contain information regarding:

7.2.1 Business permit and SEC registration.

7.2.2 Photos of the laboratory and its premises.

- 7.2.3 The structure of the laboratory (organizational charts).
- 7.2.4 Complete list of all the testing equipment /apparatus in the laboratory, with photographs and proof of ownership.
- 7.2.5 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.
- 7.2.6 General quality assurance procedures.

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- 7.2.7 Quality assurance procedures specific for each test, as appropriate.
- 7.2.8 Where appropriate, proficiency testing, use of reference materials, etc.
- 7.2.9 Satisfactory arrangements for feedback and corrective action whenever testing discrepancies are detected.
- 7.2.10 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.

8.0 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 current 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.
- 8.6 The following shall be present in laboratories conducting chemical tests/analysis:
 - 8.6.1 At least one (1) Registered Chemist who has the authority to undertake the professional practice of chemistry as defined in R.A. No. 10657. A registered Chemist can supervise a maximum of five (5) registered Chemical Technicians.

- 8.6.2 The provision of Registered Chemical Technician is elective and it depends on the judgment of the organization if needed so.
- 8.6.3 At least one (1) Pollution Control Officer who is responsible for the hazardous waste management system of the laboratory in compliance with P.D. 1586, R.A. 6969, R.A. 8749, R.A. 9275 and R.A. 9300 and other environmental laws and issuances. The PCO shall secure accreditation from the concerned Environmental Management Bureau (EMB) Regional Office where the laboratory is located.

9.0 TESTING AND MEASURING EQUIPMENT

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- 9.1 The testing laboratory shall be furnished with or has access to all items of equipment required for correct performance of the tests and measurements for which it is accredited.
- 9.2 Testing equipment/apparatus should be "per laboratory basis"; i.e., exclusive to the laboratory branch. 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 equipment 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.

9.7 To ensure proper functioning and to prevent deterioration of testing equipment, the laboratory shall have planned maintenance and procedures for safe handling, transporting and storing of testing equipment.

10.0 CALIBRATION

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- 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 program.
- 10.2 The overall program 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 program 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.

11.0 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 nonstandard, these shall be fully documented and shall have been validated appropriately before use.
- 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 program execution and take appropriate action.

12.0 ENVIRONMENT

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- 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 purposed 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.
- 12.4 Laboratories conducting chemical tests shall comply with the requirements of DENR AO No. 12, Series of 2014, Revised Guidelines for Pollution Control Officer Accreditation, on the hazardous waste materials as provided by R.A. No. 6969, otherwise known as the "Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990".

13.0 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.

14.0 PERFORMANCE WITNESSING OF TEST

- 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 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.

15.0 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.

16.0 TEST REPORTS

- 16.1 All test report forms shall have designated numbers and accountable to the laboratory doing the test, following the BRS standard format and ISO 9001:2015 standards (see **Annex C**).
- 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 complete 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 or receipt of sample 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.

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- 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 issuance 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 of the DPWH.
- 16.6 Chemical Analysis test reports shall be certified by a registered Chemist. He/she must affix his/her signature, license number and official seal on the test reports as provided by the IRR of R.A. No. 10657. If chemical analysis was performed by a registered Chemical Technician, he/she shall sign and affix his license number on the test reports as well.

17.0 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 by 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.

18.0 ANNUAL ASSESSMENT BY THE BRS

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- 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.

This Order shall take effect immediately and supersedes the following issuances:

- 1. Department Order No. 26, Series of 1989, re: Accreditation of Private Testing Laboratories
- 2. Department Order No. 190, Series of 1991, re: Amending Department Order No. 26, Series of 1989
- 3. Department Order No. 173, Series of 2002, re: Amending Department Order No. 26, Series of 1989
- 4. Department Order No. 48, Series of 2012, re: Amending Department Order No. 173, Series of 2002

DIMAS S. SOGUILON Undersecretary Officer-In-Charge

Secretary

MARK A. VILLAR

Department of Public Works and Highways Office of the Secretary

14.1.2 FET/RGT

BRS Form No. 1

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APPLICATION FOR ASSESSMENT AS DPWH ACCREDITED PRIVATE TESTING LABORATORY

The Director Bureau of Research and Standards Department of Public Works and Highways EDSA, Quezon City

Sir:

In accordance with the "Guidelines for the Accreditation of Private Testing Laboratories" issued by DPWH, we hereby apply for assessment as a DPWH accredited private testing laboratory.

1. Name of Applicant: _____

2. Address: _____

3. Telephone Number(s):

4. Address of Testing Laboratory if Different from No. 2:

5. Telephone Number of Testing Laboratory if Different from No. 3:

6. Name of Duly Authorized Representative:

7. Position of Duly Authorized Representative:

- 8. Specific Test/s for which accreditation is sought. (Use a separate sheet if necessary): _____
- 9. Testing Apparatus and Laboratory Equipment List down the test facilities for the type of test for which accreditation is sought. Include name of equipment, its purpose/use, manufacturer, date acquired and dated placed in service (Use a separate sheet if necessary).

- 10. Calibration State program of calibration of measuring instruments/ equipment. (Use a separate sheet if necessary).
- 11. List down the personnel in-charge of testing, together with their qualifications.
- 12. Describe briefly the security measures for ensuring the protection of proprietary rights and confidential information.

In the event that a certificate of accreditation is granted, we hereby agree to comply with the "Guidelines for the Accreditation of Private Testing Laboratories" and to abide by all rules and regulations promulgated by the DPWH for the accreditation of private laboratories of assessed technical competence.

> (Signature) President/Manager/Duly Authorized Representative

Subscribed and sworn to before me this ____ day of _____ 20___, affiant exhibiting to me his/her Residence Certificate No. _____, issued at

Notary Public

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CERTIFICATE OF ACCREDITATION

This is to certify that <u>Name of Testing Laboratory</u> located at <u>Complete Address of Testing Laboratory</u> is duly accredited to undertake materials testing for government infrastructure projects pursuant to Department Order No. 26, series of 1989, as amended by Department Order No. 190, series of 1991 and Department Order No. 173, series of 2002.

Name of Tests

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This certificate is good only for the above-mentioned tests and shall be valid from _____to ____.

REYNALDO G. TAGUDANDO Director IV

Republic of the Philippines Department of Public Works and Highways BUREAU OF RESEARCH AND STANDARDS EDSA, Diliman, Quezon City

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	Lab. Report No:			
<u>TEST REPORT ON EN</u>	MULSIFIED ASPH/	<u>4<i>LT</i></u>	<u></u>	Date
Project	:			
Kind of material	:			
Sample identification	:			
Quantity represented	:			
Sampled at	:			
Original source	:			
Supplied by	:			
Proposed use	:			
Governing Spec's	:			
Sampled by	:			
Q X XX	(Name & de	signation)	(Office)	(Date)
Submitted by	:			
· · · · · · · · · · · · · · · · · · ·	(Name & de	signation)	(Office)	(Date Received)
Lab. No. : 273-17	(No Payment)			
TESTS			<u>RESULTS</u>	
Abrasion Loss (LAM)), %			
Bulk Specific Gravity	v (SSD)			
Absorption, %	· · · · · · · · · · · · · · · · · · ·			
REMARKS:				
Tested by:		Checked by:		
				,
Witnessed by:		ATTESTED:	<u></u>	

QMS-BRS-MTD-Physi<u>cal Section</u> Form No. <u>43</u>

ANNEX C

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Republic of the Philippines Department of Public Works and Highways BUREAU OF RESEARCH AND STANDARDS EDSA, Diliman, Quezon City

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Lab.	Report No:	

			Date
TEST REPORT ON CONC	RETE AGGREGATES		
Project	:		
Kind of Material	•		
Sample identification	•		
Quantity represented	•		
Sampled at	•		
Original Source	•		
Sunnlied hy	•		
Pronosod uso	•		
Governing Snec's	•		
Samnled by	•		
Sumpica by	• Name & designation	an) (Offic	no) (Date)
Submitted by	I white a newsprant		(1)
Gronwide og	Name & designation	on) (Offic	ce) (Date Received)
Lah No. :			
TEST:	5	REOUIREMENTS	RESULTS
Sieve Analysis: Cumulative 9	6 Passing		
Size Sieve, mm			
9.5		100	
4.75		95-100	
2.36		• • • · ·	
1.18		45-80	
0.6		-	
0.30		5-30	
0.15		0-10	
0.075		0-3	
Fineness Modulus		2.75	
Bulk Specific Gravity (SSI	m	-	
Absorption %		-	
Soundness (Na-SQ.) % L	066	10 Max	
Morter Strength %	035	95 Min	
Arganic Impurities		-	
Urgano impuntos		-	
Unit weight, kg/m			
LOOSe		-	
REMARKS:	I	- 1	
Tested by:	C	Checked by:	
	4	·	
Witnessed by:	A	ATTESTED:	
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