

State of Louisiana
Department of Transportation and Development (DOTD)
Materials and Testing Section Approved Materials Procedure
for

HYDRATED LIME AND QUICKLIME

MATERIAL SPECIFICATION REFERENCE:

DOTD Standard Specifications, Subsection 1018.02, Supplemental Specifications and Special Provisions

APPROVED MATERIAL EVALUATION SUBMITTAL:

The manufacturer shall submit a completed Approved Materials Evaluation Submittal for each plant location to the DOTD Materials and Testing Section Coordinator listed below.

PRELIMINARY REQUIREMENTS:

The complete submittal must include:

- Complete Approved Materials Evaluation Form
- Letter requesting evaluation of the material
- Product Data Sheets
- Safety Data Sheet (SDS)
- Sample
- An outline of the supplier's quality assurance sampling and testing program.
- Independent Laboratory Test Results

NOTE: Evaluation will not begin until all required items listed above are received by the Materials Laboratory.

Certifications and/or Test Reports

Submit a Certificate of Analysis (CA) for samples to be submitted to the Materials and Testing Section. The CA shall show test results applicable to the intended use of the material and the test results shall meet all specifications listed or referenced in DOTD Standard Specifications, Subsection 1018.02, or Supplemental Specifications and Special Provisions.

Sample (to be furnished at no cost to the Department)

A one gallon (4 L) sample of typical production material is to be provided to the Department. The sample shall be placed in a friction top metal can or other moisture-proof container that will insure the sample against contamination. The Department reserves the right to send a representative to make an on-site inspection of the plant's facilities with emphasis on the method of sampling and handling of samples after they are taken.

TEST REQUIREMENTS:

Laboratory Testing

The approved materials sample shall comply with AASHTO M 216 with the following exceptions:

1. Maximum free moisture shall be 1.50 percent for hydrated lime.
2. Quicklime shall contain no more than 8 percent MgO by weight of total material. The quicklime shall be protected from contact with moisture prior to testing, and shall be free flowing and graded so that 100 percent will pass a 3/8 inch sieve. When the quicklime is to be used in slurry, a minimum of 95 percent shall pass the 3/4 inch sieve.

Field Evaluation

The Department may require an inspection of the plant to review methods of sampling, testing and handling of the material.

Evaluation Time (1 Week)

GENERAL:

Upon completion of the evaluation, the submitter will be notified in writing concerning the results of the evaluation and whether the product will or will not be added to the Approved Materials List (AML). The DOTD Materials and Testing Section Coordinator shall be notified in writing of any change from the original product submittal. The Department reserves the right to re-evaluate any product or individual material at any time. A Certificate of Analysis (CA) of the material shall be submitted quarterly to the DOTD Materials and Testing Section Coordinator to remain on the AML.

It is also the manufacturer's responsibility to supply the contact information of the representative responsible for the material to the Materials Section Coordinator to remain on the AML. This is done by completing the Approved Materials Evaluation Form annually or when there is a change in the manufacturing representative responsible for the material.

If approved, the manufacturer is required to submit a list to the DOTD Materials and Testing Section Coordinator showing plant and terminal representatives authorized to:

1. Sample hydrated lime or quicklime in accordance with this procedure.
2. Sign "Lime Certificate of Delivery" forms which must be completed for each shipment.
3. Sign certificates of analysis for quarterly plant samples as defined herein.

Other requirements for approved plants are as follows:

1. Effective Quality Control program:

The plant's quality control program shall be sufficient to insure that the finished lime possesses uniform characteristics within the Department's specifications. An accurate record of test results representing daily production shall be maintained by the plant.

2. Provide Quarterly Plant Samples:

Each lime plant must provide a quarterly lime sample along with a complete physical and chemical analysis of a representative portion of source material to the Department's Materials Section on a continuous basis in order to maintain source approval. Quarterly samples must be submitted in the months of February, May, August and November.

The sample shall be representative of typical production and the same size as that of the qualification samples.

The plant sample shall be taken regardless of whether or not lime is being produced for Louisiana projects.

3. Maintain List of Authorized Representatives:

All approved plants and terminals shall submit and maintain a list of representatives authorized to sign documents pertaining to the certification, testing, and shipment of lime.

4. Allow Periodic Inspections By Department Personnel:

The Department may conduct periodic inspections of plant facilities with emphasis on sampling and testing procedures, at the Department's discretion. If a plant inspection is undertaken, the inspector shall have entry at all times to the parts of the plant involved in the manufacture, sampling, and testing of lime, and shall also have the cooperation and assistance of plant personnel during the inspection. The Department must also be notified in writing of any change in material formulation. Significant changes may require reevaluation of the material.

5. Provide "Lime Certificate of Delivery" Forms For Each Shipment:

A completed "Lime Certificate of Delivery" form (blank forms are supplied by the Department), shall accompany all shipments of lime intended for use on state projects including shipments to distribution terminals or to authorized distributors. A copy of each form shall also be sent to the Materials Engineer Administrator. The terminal's or distributor's records and operations must be such that the lime handled is traceable to a reasonable production period.

6. Seal Conveyances:

The manufacturer's seals shall be placed on all outlets of railroad cars and barges and on discharge ends of truck transports delivering lime to Department projects. This seal must be placed immediately after loading and in the presence of the manufacturer's, terminal's or distributor's authorized representative. The seals shall be intact and in place upon arrival at the destination.

The Department's authorized representative shall observe the removal of the seals and shall verify that the seal numbers are the same as those listed on the certifications which accompany the shipment.

MATERIAL SAMPLING REQUIREMENTS:

Material Sampling & Acceptance:

1. Verification Tests

The Department's project personnel will sample shipments to State projects in accordance with the Department's Materials Sampling Manual. These samples will be submitted to the Materials and Testing Section for testing in accordance with AASHTO M 216 modified as shown in Subsection 1018.02 of the Standard Specifications.

2. Acceptance

Sealed shipments of lime will be accepted by project personnel based on properly completed "Lime Certificate of Delivery" forms signed by an authorized plant terminal or distributor representative. The Project Engineer, however, will be required to obtain verification samples as indicated above.

PROJECT ACCEPTANCE REQUIREMENTS:

The inclusion of any material on the Approved Materials List is not blanket approval for its use. All materials, regardless of prior approval, shall be sampled in accordance with the Materials Sampling Manual.

DISQUALIFICATION AND REMOVAL:

Any material may be removed from the AML at any time. Causes for removal from the AML may include, but are not limited to the following:

- Non-conformance with specifications
- Performance requirements
- Failure to notify the Department of any change in material formulation.
- Failure of the supplier to provide proper certifications as required by this procedure
- Failure to supply current contact information for the material representative in accordance with this procedure.

REQUALIFICATION:

Any material which has been disqualified and removed from the AML will be considered for re-evaluation only after submission of a formal request along with acceptable evidence that the problems causing the disqualification and/or removal have been resolved.

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DOTD MATERIALS AND TESTING SECTION COORDINATOR

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Approved 05/24/17

A handwritten signature in black ink, appearing to read "B. Owens", is positioned above the printed name of the Engineer Administrator.

BRIAN OWENS, P.E.
DOTD MATERIALS ENGINEER ADMINISTRATOR