

**MATERIALS DIVISION**  
  
 Virginia Department of Transportation  
**MEMORANDUM**

<b>GENERAL SUBJECT:</b> Revisions to Materials Division Manual of Instructions		<b>NUMBER:</b> MD 316-09
<b>SPECIFIC SUBJECT:</b> Revisions to the frequency of performing absorption testing on concrete pipe		<b>DATE:</b> June 1, 2009
<b>DIRECTED TO:</b>  District Administrators	<b>SIGNATURE:</b>  Charles A. Babish, P.E. State Materials Engineer <i>Signature on original copy of memorandum</i>	

This memorandum is being issued to revise the Materials Division Manual of Instructions Section 204.26(f)(1). to allow concrete pipe producers the option of decreasing the amount absorption testing on concrete pipe based upon a concrete pipe manufacturer's history of passing test results for a specific mix design.

Modify Section 204.26(f)(1)b as follows:

b Absorption ~~One per lot~~ *See Note below*

Add new paragraphs at the end of Section 204.26(f)(1) as follows:

*Note: The requirements for absorption testing on concrete pipe are one per lot with no history of test results. If a history is available, then the minimum frequency of absorption testing may be reduced as follows:*

*Frequency of tests = one randomly selected absorption test per number of consecutive production lots with passing test results or a minimum of one test per 30 consecutive production lots*

*A random sampling process (as defined in the concrete pipe manufacturer's approved Quality Control Plan on file with the Department) will be used to determine the lot from which a specimen will be tested. If a failing result is obtained or if one or more of the source of materials for a mix designs changes, the frequency of test will resume at one test per lot as if no history was available.*

*Examples:*

*No. 1 -- If no history is available, the frequency of testing is one per lot. If this test passes, then over the next two lots, one lot is randomly selected and tested for absorption. If the absorption test passes, then the frequency of testing will be one randomly selected lot out of the next 3 lots. The process continues in this manner until 30 consecutive passing results are obtained. Once 30 consecutive passing tests results are obtained, then, as long as subsequent tests pass and there are no changes in the source of materials for the mix design, the frequency of testing will be one test on a randomly selected lot per 30 lots.*

*No. 2 - If a concrete pipe manufacturer has 10 consecutive passing test results, then the frequency of absorption tests would be one randomly selected lot out of the next 10 lots. If the next random sample test passes, the number of consecutive passing test results increases by one to becomes 11. Once 30 consecutive passing tests results are obtained, then, as long as subsequent tests pass and there are no changes in the source of materials for the mix design, the frequency of testing will be one test on a randomly selected lot per 30 lots.*

*No.3 - If the number of consecutive passing test results was 35, the frequency of absorption tests would be one test on a randomly selected lot out of the next 30 consecutive lots, provided there are no changes in the source of materials for the mix design.*

*If a failure occurs, then the number of tests would reinitialize at one test per lot.*

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