



Florida Department of Transportation

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SECRETARY

December 1, 2010

MATERIALS BULLETIN NO. 07-10

DCE MEMORANDUM NO. 17-10

(FHWA Approved: 11/30/10)

**TO: DISTRICT MATERIALS RESEARCH ENGINEERS
DISTRICT CONSTRUCTION ENGINEERS**

FROM: Thomas O. Malerk, P.E., Director, Office of Materials
David A. Sadler, P.E., Director, Office of Construction

COPIES: Bob Burleson, Brian Blanchard, Rodney Chamberlain, Steve Plotkin, Leigh Markert,
Mike Bergin, Chris Richter, Chad Thompson, Abraham Scott, Duane Brautigam,
Roosevelt Petithomme

SUBJECT: HIGH SLUMP CONCRETE WITH LUMPS AND BALLS

The Department, representatives of the contracting industry, and representatives of concrete producers met recently to discuss the increasing trend of high slump concrete being delivered to FDOT projects that contain lumps and balls. The discussions at that meeting led to the development of this memorandum to address a consistent means by which the Department will address this issue on its construction projects.

In recognition of some challenges facing the concrete industry with regard to the production of high slump concrete (7 inches of slump or above) that is free of lumps and balls, the Department will implement the following on all ongoing and future projects:

1. For all high slump concrete placements the contractor will be required to utilize a grate over the conveyance equipment to capture any lumps or balls that may be present in the mix. The grate shall cover the entire opening of the conveyance equipment and will have square or rectangular openings that are a maximum of 2 ½ inches in either direction.
2. Placement of any concrete mix that has lumps or balls is allowed to continue provided the lumps or balls are removed from the grate and discarded, all at the contractor's risk for strength gain. The Engineer, at his discretion, may make cylinders to verify the strength of the concrete.
3. The Department project personnel will monitor these placements and note any lumps and balls that are found. This information is to be reported to the District Materials Office so that Department can address the issue with the concrete producer through the Producer's Quality Control (QC) Plan.
4. The District Materials Office shall use the following process to evaluate and take action on concrete not in compliance with the specifications covering lumps and balls in high slump concrete;
 - a. If there are lumps and balls present in one truck of high slump concrete the District Materials Office will note this for future plant inspections.

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- b. If another truck(s) exhibits lumps and balls, the District Materials Research Engineer (DMRE) or their representative will inspect the batch plant to ensure compliance to the concrete producers QC plan, specifically that portion of the plan that addresses the batching of high slump concrete.

If subsequent trucks exhibit lumps and balls, the DMRE or its representative will notify the concrete producer that the Department will not accept high slump concrete from that production facility for any FDOT projects until the concrete producer demonstrates its ability to batch high slump concrete free of lumps and balls. In addition, that production facility will revise that portion of its QC plan that addresses the batching of high slump concrete to reflect QC improvements made. The Department will continue to work with the concrete industry on related issues concerning the allowance of additional mixing revolutions, additional time for placements, and the use of admixtures to help control concrete slump. Should you have any questions please contact Steve Plotkin at 904-360-5501 at the State Construction Office or Mike Bergin at 352-955-6666 at the State Materials Office.

TM/DS/bp