



Florida Department of Transportation

RICK SCOTT
GOVERNOR

5007 NE 39th Avenue
Gainesville, FL 32609

ANANTH PRASAD, P.E.
SECRETARY

October 7, 2011

**** Expired ****

MATERIALS BULLETIN NO. 05-11

(FHWA Approved: 10/6/11)

TO: DISTRICT MATERIALS RESEARCH ENGINEERS

FROM: Timothy J. Ruelke P.E., Director, Office of Materials

COPIES: Tom Byron, Ghulam Mujtaba, Mike Bergin,
Chris Richter (FHWA), Chad Thompson (FHWA)

**SUBJECT: CONCRETE WITH LUMPS AND BALLS IN THE PRECAST/PRESTRESSED
CONCRETE FABRICATION FACILITIES**

Specifications Section 346 requires the use of uniformly produced concrete, free of lumps and balls, in casting of structures and products for Florida Department of Transportation (FDOT) projects. During the fabrication of precast/prestressed concrete products, the fabricator must reject any batch of concrete that contains lumps and balls.

As an alternative to the rejection of the delivered batches of concrete during a concrete placement, the fabricator may use the delivered batches by removal of the lumps and balls prior to placement of concrete. The fabricator and concrete fabrication facility must take necessary actions, as described below:

1. The fabricator shall utilize an appropriate size and opening grate over the conveyance equipment to prevent movement of any lumps or balls into the concrete form. The grate shall cover the entire opening of the conveyance equipment with square or rectangular openings of 2 ½ inches or smaller in either direction. Ensure that the strips or bars of grates have such a design that they do not cause any segregation or impediment of continuous flow of concrete.
2. Proceed with the placement of concrete mix after removal and discarding of lumps and balls from the grate and verifying the slump of the concrete is in compliance with the mix design. The placed concrete has to meet the required plastic and hardened concrete properties. The quality control inspector must cast test cylinders from each load of concrete that is utilized in casting of concrete products, after removal of lumps and balls.
3. The quality control inspector must report the problem of lumps and balls in the concrete to the concrete producer and the District Materials Office.

MATERIALS BULLETIN NO. 05-11

October 7, 2011

Page 2

4. The District Materials Office will notify the producer that in the future FDOT will not accept concrete from its production facility until the facility demonstrates its ability to batch concrete free of lumps and balls. In addition, the production facility shall revise its quality control plan to include corrective actions related to concrete production free of lumps and balls.
5. The concrete producer has to submit the Quality Control (QC) Plan revision describing corrective actions to prevent the recurrence of the delivery of lumps and balls concrete from its production facility to any of the current or future FDOT projects to the District Materials Office.
6. The District Materials Office will review the concrete producer's QC plan revision and inspect the concrete production facility to ensure that future delivery of concrete from the production facility do not contain lumps and balls.

Should you have any questions please contact Mike Bergin or Ghulam Mujtaba, State Materials Office at 352-955-6666 or 352-955-6685, respectively.

TJR/mb