

OFFICE OF STATE AID ROAD CONSTRUCTION
 MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DATE: May 10, 2006

SUBJECT: Portland Cement

Section S-701 - HYDRAULIC CEMENT; of the MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION 2004 EDITION is hereby amended as follows:

901-S-701.01--Portland Cement. Delete the third paragraph and table in Subsection 701.01 on page 7-9, and substitute the following:

When Portland cement concrete or cement for soil stabilization is exposed to moderate or severe soluble sulfates, or to seawater, cement types and replacement of cement by Class F fly ash (FA), ground granulated blast furnace slag (GGBFS), or metakaolin shall be as follows:

Cementitious Materials for Soluble Sulfate Conditions

Sulfate Exposure	Water-soluble sulfate (SO ₄) in soil, % by mass	Sulfate (SO ₄) in water, ppm	Cementitious material required
Negligible	0.00 - 0.10	0.0 - 150	- - -
Moderate and Seawater	0.10 - 0.20	150 - 1500	Type II*** cement, or Type I cement with one of the following replacements of cement: 25% Class F, FA, or 50% GGBFS, or 10% metakaolin
Severe	0.20 - 2.00	1500 - 10,000	Type II* cement with one of the following replacements of cement: 25% Class F, FA, or 50% GGBFS, or 10% metakaolin

* Type I cement with a maximum 8% tricalcium aluminate may be used in lieu of Type II Cement.

** Class F, FA or GGBFS may be added as a replacement for Portland cement in accordance with the proportions as listed in this table.

Class C fly ash shall not be used as a replacement for Portland cement in any of the sulfate exposure conditions listed above.