

9290200 POZZOLANS AND SLAG  
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Rudy Powell

Comment: (Internal, 9-23-10)

Is this additional language really needed? The existing sentence, "Continuance of Department ..." says pretty much the same thing. Also, the Department "may conduct inspections." Why state that? We always have the ability to conduct inspections. The inspection timeframes are written to the Department and not needed in the spec.

**929-1.1 General:** *The cementitious materials supplier shall submit the proposed quality control plan, certified test reports from an approved independent laboratory acceptable to the State Materials Office, and a sample of the material for Department verification. The quality control program of a cementitious materials supplier shall conform to Section 105-3. Continuance of Department Qualifications is subject to satisfactory results from periodic verification evaluations. The Department may conduct inspections of the cementitious materials supplier's production facility to ensure conformance with the quality control plan. The inspections will be conducted at least annually and the results of the inspection will be provided to the supplier.*

Response: We added this language because we don't state it anywhere else. Unlike the other materials, there is no Materials Manual Volume II section that speaks to Industry. We've always done yearly inspections, but don't state anywhere that this is the requirement to either FDOT personnel or to Industry. This one sentence is the only place that we state this to both parties. If someone asked us where does it say you can perform yearly inspections, without this language, we can't say. From the Specifications Office (as per RP): The proposed 2 sentences will not be included in the spec. They are a repeat of "Continuance of Department Qualifications .... **periodic** verification evaluations." In addition, 6-1.1, 105-1.2.1, and 105-3.1 provide language. If the Department is to inspect once a year then that needs to be either in the Materials Manual or CPAM, not the spec.

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Comments: (10-19-10, Internal Review)

**929-2.3 Fly Ash (Class C):** *Fly ash derived from the combustion of ground or powdered coal shall meet the requirements of ASTM C-618 Class C fly ash. Sampling and testing of fly ash shall follow the requirements of ASTM C-311. When Class C fly ash is used in concrete, the test results shall verify improved sulfate resistance and improved or comparable corrosion protective properties, as compared to ASTM C-618 Class F fly ash concrete. The durability tests of concrete shall be performed in accordance with ASTM C-1012 and FM 5-522.*

These tests are not enough to screen out the C ash we don't want. I suggest C-1012 testing should be partially submerged samples rather than fully submerged. Instead of FM5-522 we should ask for 3 bar tombstone. Both in the hot room.

Response: SMO has developed a new test method, FM 3-C-1012, for durability tests. This is reflected in the language in 929-2.3.

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Bob Dion  
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Comments: (11-2-10)

Please review 929-3.2 can 'and this specification' be deleted? Acceptance is based on certification that the requirements of ASTM C-120 have been met, there doesn't appear to be any other requirements in the specification.

Response:

From the Specifications Office: The cementitious materials supplier must also follow and meet the requirements of 929-1. This is what "and this specification" refers to.

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David Marshall  
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Comments: (11-3-10)

Please revise the standards report to reflect that the C 618 Report is NOT a mill certificate or mill analysis, this verbiage is from cement production and fly ash is tested in a separate manner as reflected by the format difference.

Attached is a typical C 618 as an example.

<b>HEADWATERS</b>		<b>RESOURCES</b>				Adding Value to Energy™	
Headwaters Resources certifies that pursuant to ASTM C-618-08 protocol for testing, the test data listed herein was generated by applicable ASTM methods and meets requirements of ASTM C-618 and AASHTO M-295 and Florida D.O.T. 929 Specification for Class F fly ash.							
<b>Report of Class "F" Fly Ash Martin Lake Plant, Tarum, Texas Unit #1,2</b>							
DATE: <u>October 20, 2010</u> LABORATORY NUMBER: <u>LNIT #1,2 AUGUST</u>							
		<b>COMPOSITE DATE</b>					
		AUGUST 2010					
		<b>ASTM C-618-08</b>		<b>AASHTO M-295-06</b>			
		<b>SPECIFICATIONS</b>		<b>SPECIFICATIONS</b>			
<b>CHEMICAL ANALYSIS</b>		<b>CLASS C</b>	<b>CLASS F</b>	<b>CLASS C</b>	<b>CLASS F</b>		
Silicon Dioxide (SiO <sub>2</sub> )	32.86 %						
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	20.26 %						
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	6.35 %						
Sum of SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , & Fe <sub>2</sub> O <sub>3</sub>	79.47 %	50 Min.	70 Min.	50 Min.	70 Min.		
Magnesium Oxide (MgO)	3.06 %						
Sulfur Trioxide (SO <sub>3</sub> )	0.39 %	5.0 Max.	5.0 Max.	5.0 Max.	5.0 Max.		
Moisture Content	0.07 %	3.0 Max.	3.0 Max.	3.0 Max.	3.0 Max.		
Loss On Ignition	0.12 %	6.0 Max.	6.0 Max.	5.0 Max.	5.0 Max.		
Available Alkalis as Na <sub>2</sub> O	0.74 %			1.5Max.	1.5Max.		
Calcium Oxide (CaO)	10.91 %						
<b>PHYSICAL ANALYSIS</b>							
Fineness: Amount retained on 325 sieve %	16.28 %	34% Max.	34% Max.	34%Max.	34%Max.		
Water Requirement, % Control	95 %	105%Max	105%Max	105%Max	105%Max		
Specific Gravity	2.46						
Autoclave Expansion, %	-0.05 %	0.8% Max	0.8% Max	0.8% Max	0.8% Max		
Strength Activity Index With Portland Cement, 7 Day	88 %	75% Min.	75% Min.	75% Min.	75% Min.		
28 Day	100 %	75% Min.	75% Min.	75% Min.	75% Min.		
* Applicable only when required by purchaser.						<b>AUTHORIZED SIGNATURE:</b> 	
P.O. Box 38 Thompsons, Texas 77461-0038 P: 281.343.0079 F: 281.343.0872							

Response: Changed to certified test report.

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Comments: (11-29-10)

Section 929, comments for District 5 from Daniel Haldi as follows:)

929-2.2 and 2.3, Is sampling and testing only required of Type F? Shouldn't statement be in general, 2.1 so all are sampled and tested by ASTM methodology?

Response: Change made. Sampling and testing moved to general subarticle.

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