LAFARGE NORTH AMERICA

Cement

FLY ASH TEST REPORT

Analysis by: Lafarge Seattle Concrete Lab
Sample from : Centralia Power Plant
Average Analysis: May 2021
Test Report Number 6-21 Class F

Chemical Analysis

	Results		Limits
Silicon Dioxide (SiO_2)	**47.9**	**%**	
Aluminum Oxide (Al_2O_3)	**16.6**	**%**	
Iron Oxide (Fe_2O_3)	**5.8**	**%**	
Total (SiO_2) + (Al_2O_3) + (Fe_2O_3)	**70**	**%**	50% Min - ASTM
Sulphur Trioxide (SO_3)	**1.0**	**%**	5% Max - ASTM
Calcium Oxide (CaO)	**15.0**	**%**	18% Max - ASTM
Magnesium Oxide	**5.6**	**%**	
Moisture Content	**0.15**	**%**	3% Max - ASTM
Loss on Ignition	**0.29**	**%**	5% Max
Available Alkali as Equiv. Na_20 *(previous month's result)*	**0.52**	**%**	1.5% Max

Physical Analysis

Fineness Retained on 45 um (No. 325 Sieve)	**20.0**	**%**	34% Max - ASTM
Strength Activity Index with Portland Cement			
% of Control at 7 Days	**88**	**%**	75% Min - ASTM
% of Control at 28 Days *(previous month's result)*	**92**	**%**	75% Min - ASTM
Water Requirement, Percent of Control	**93**	**%**	105% Max- ASTM
Autoclave Expansion	**0.05**	**%**	0.8% Max - ASTM
Density	**2.64**	**Mg/m^3**	

Uniformity Requirements

Density, Variation from Average	**0.00**	**%**	5% Max - ASTM
Fineness 45um Sieve, Variation from Average	**2.30**	**%**	5% Max - ASTM

We hereby certify that the composite fly ash sample above meets the chemical and physical requirements of ASTM C618 and AASHTO M295 for class F fly ash.

Certified : _____

Rob Shogren
Technical Director

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