



**Cement**

**FLY ASH TEST REPORT**

Analysis by: Lafarge Seattle Concrete Lab  
Sample from : Centralia Power Plant  
Average Analysis: August 2024  
Test Report Number 9-24 F CSA

**Chemical Analysis**

|  |        | Limits        |
|--|--------|---------------|
| Silicon Dioxide (SiO <sub>2</sub> )              | 50.4 % |               |
| Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> ) | 17.6 % |               |
| Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )     | 6.1 %  |               |
| Sulphur Trioxide (SO <sub>3</sub> )              | 1.1 %  |               |
| Calcium Oxide (CaO)                              | 14.4 % | 15% Max - CSA |
| Magnesium Oxide                                  | 4.0 %  |               |
| Moisture Content                                 | 0.18 % |               |
| Loss on Ignition                                 | 0.30 % |               |
| Total Alkalies as Equivalent Na <sub>2</sub> O   | 4.29 % |               |

**Physical Analysis**

|  |                        |               |
|--|------------------------|---------------|
| Fineness Retained on 45 um (No. 325 Sieve)                 | 13.3 %                 | 34% Max - CSA |
| Strength Activity Index with Portland Cement               |                        |               |
| % of Control at 28 Days ( <i>previous month's result</i> ) | 91 %                   |               |
| Water Requirement, Percent of Control                      | 93 %                   |               |
| Density  | 2.60 Mg/m <sup>3</sup> |               |

We hereby certify that the composite fly ash sample above meets the chemical and physical requirements of CAN/CSA A3001 for Type F Fly Ash.

Certified . \_\_\_\_\_

Rob Shogren  
Technical Director

**WESTERN REGION**

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