

Fly Ash - Class F

Date last edited: 09/26/2024

For use as cement replacement in portland cement concrete according to Std. Spec. 501.2.4

Plant	Plant Location	Plant Operator	Coal Source(s)	Vendor	Vendor Distribution Terminal(s)	Date Approved
Belle River Power Plant	East China, MI	DTE Energy	Decker Coal Mine (Decker, MT) Spring Creek Coal Mine (Decker, MT)	Ozinga Cement	11701 Torrence Ave, Chicago IL 960 East Bay Milwaukee WI	9/26/2024
Coal Creek Station	Underwood, ND	Rainbow Energy	Falkirk Mine (Underwood, ND)	EM Resources	N/A (direct from plant)	9/26/2024
Prairie State Energy	Marissa, IL	Prairie State Energy Co.	On-site mine (PSEC campus)	EM Resources	N/A (direct from plant)	9/26/2024

Contact:  
[DOTProductSubmittal@dot.wi.gov](mailto:DOTProductSubmittal@dot.wi.gov)



## **Approved Product List Application Process for Class F Fly Ash**

Wisconsin Department of Transportation (WisDOT) requires approval for using class F fly ash that exceeds 15% cement replacement in concrete projects from the approved product list (APL). This APL approval process for class F fly ash is subject to the requirements described below.

### **Approval Process**

- To apply for WisDOT's APL process for class F fly ash, the manufacturer/supplier must submit the required information listed below for WisDOT's review:
  - Safety Data Sheet
  - Description of the coal sources/types and blending percentages (with range of variability) that currently comprise the class F fly ash source.
  - Certified test report for the class F fly ash for each source of fly ash for the last 12 months of production must be provided. Testing must be conducted in an accredited American Association of State Highway and Transportation Officials (AASHTO) and Cement and Concrete Reference Laboratory (CCRL) testing laboratory/facility and the report must include the physical and chemical test data showing that fly ash has met or exceeded the requirements in outlined material property requirements section.
    - The testing laboratory/facility must participate in CCRL accreditation/inspection program and the manufacturer/supplier shall provide a copy of the testing facility's current CCRL inspection report.
    - If submitting an independent laboratory test data, include the AASHTO/CCRL certification of the testing laboratory.
  - Primary point of contact for the submitted product including name, email address, phone number, and mailing address.
  - Submit the above required information to [DOTProductSubmittal@dot.wi.gov](mailto:DOTProductSubmittal@dot.wi.gov).
- By applying, the manufacturer/supplier certifies that they have reviewed the standards/requirements, and their product meets the requirements. WisDOT may reject an APL submittal without further review if WisDOT determines that the product does not meet standards/requirements.
- Application submissions are due on March 1<sup>st</sup> of each year. Applications will be reviewed within 4 weeks of submittal and when the review is completed, manufacturers/suppliers will be notified. Approved products will be included on the department's APL.

### **Material Property Requirements**

- Class F fly ash must meet or exceed the requirements outlined in ASTM C618 with exceptions listed in Standard Specifications (SS) 501.2.4.2.2.

### **Department Verification Testing Program**

- By joining in the WisDOT APL, the vendor agrees to participate in the department verification testing.

- The verification testing program will include physical and chemical tests that must verify conformance to ASTM C618 with exceptions listed in SS 501.2.4.2.2. Additional tests may also be performed by WisDOT as needed. The WisDOT project engineer shall obtain one 10-pound sample in accordance with AASHTO T127 or ASTM C183 that may be tested by WisDOT.
- If nonconformance is found, WisDOT will notify the vendor to resolve the discrepancy as quickly as possible. Continued approval of the product will be contingent upon resolution of the discrepancy and conforming test results from WisDOT's laboratory.

### **Compliance**

- To remain on the WisDOT APL, submit a copy of the certified ASTM C618 test report semiannually (August 1<sup>st</sup> and February 1<sup>st</sup>) showing compliance with the above-mentioned material property requirements to [DOTProductSubmittal@dot.wi.gov](mailto:DOTProductSubmittal@dot.wi.gov). Each submittal must contain the certified test reports for the past 6 months.
- At any time, WisDOT may request a sample of the class F fly ash to test for conformance and compare the results with the vendor test data. The verification testing sample will be taken by a WisDOT project engineer at the time of manufacture or time of discharge at the plant.
- The manufacturer/supplier is required to reapply every 3 years.
- The department may request re-compliance at any time.

### **Non-Compliance**

- WisDOT will continue to regard this approval valid unless/until any of the following conditions arise:
  - If the manufacturer/supplier changes the product physical or chemical properties without notifying WisDOT.
    - A change in any of the primary sources of the coal used in production.
    - A change in the current coal blending ratio of greater than 5%.
    - A substantial change in the chemistry of the fly ash identified per ASTM C618.
  - Failure to submit semiannually certified ASTM C618 test report.
  - The product samples audited/tested by WisDOT do not meet the requirements as specified in this document.
- Manufacturers/suppliers are required as a condition of approval to inform WisDOT of any of the above conditions as soon as they become aware of them.

### **Correspondence**

If the name and/or address of the contact person in your company for this correspondence have changed, or if you have questions or need further information, please contact us via email [DOTProductSubmittal@dot.wi.gov](mailto:DOTProductSubmittal@dot.wi.gov).