COLORADO DEPARTMENT OF TRANSPORTATION

PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

Reference No. 2511-03

Materials Laboratory
Colorado Department of Transportation
4201 East Arkansas Avenue
Denver, Colorado 80222

PART 1: Completed by Product Representative
PART 2: Completed by CDOT Product Evaluation Coordinator
PART 3: Completed by CDOT Expert Product Evaluator
PART 4: Completed by CDOT Materials Engineer

PART 1

Product name: Plant Big Brown, Boral Class F Fly Ash

Product category: Concrete\Minerals\Fly Ash, Class F

Product representative (name & address):
Boral Material Technologies Inc. {Rodney C. Cunningham}
45 NE Loop 410 / Suite 700
San Antonio, Texas 78216
Phone: (800) 964-0951 FAX: (210) 979-6110

Manufacturer (name & address):
Boral Material Technologies Inc. (Plant Big Brown)
9 Miles NE of Fairfield off FM 2570
Fairfield, TX 75840
Phone: (903) 389-5304 FAX: (903) 389-5410

Description of product, (be precise, include product differentiation between your products &/or competitor's products):
Plant Big Brown fly ash is produced from the combustion of Texas lignite coal. The resultant fly ash meets Class F requirements. The fly ash has an R-factor less than 1.8 and is composed primarily of silica-alumina spheres. It's average LOI is 0.43%, CaO is 14%, SG is 2.42, 28-day strength activity index is 93% and is uniform in consistent fineness with a factor of 1.37%.

Usage of product, (be specific to CDOT highway activities only):
The Big Brown fly ash is recommended for use in portland cement concrete. It may also be used for soil stabilization.

Benefits to CDOT, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):
Big Brown fly ash combines with excess calcium hydroxide formed by portland cement during hydration to form additional calcium silicate hydrate. The effect of this pozzolanic reaction is reduced permeability and improved durability. It further helps protect against alkali-aggregate reaction and improves resistance to sulfate attack. Given the cost associated with Big Brown fly ash compared to portland cement, a cost savings should be recognized for comparable compressive strength.

Specifications, (identify specifically those applicable) **& Certificate of Compliance** (submittal required):

- ■ CDOT : Standard Specifications 701.02
- ■ ASTM : C 618, Class F
- ■ AASHTO: M 295, Class F
- ☐ FHWA :
- ☐ other :

Product testing, (national/independent laboratories) **& Certified Test Report** (submittal required):

- ☐ NTPEP-AASHTO:
- ☐ HITEC or FHWA :
- ☐ FHWA or other :
- ■ other : Boral Material Technologies laboratory certified by CCRL

State DOT Approvals, (current documentation required):

Evaluation Procedure, (recommended):
A sample is provided to ensure this product meets the requirements of ASTM C 618, AASHTO M 295 and CDOT specifications.

Sample submitted: ■ yes ☐ no ☐ n/a | Materials Safety Data Sheets (MSDS): ■ yes ☐ no ☐ n/a

Notes/Additional Comments
Big Brown fly ash is currently approved by the DOT in Florida, Louisiana, Mississippi and Texas.

Manufacturer's Web-site address: www.boralmti.com

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