



January 13, 2017

16-67189
Via Electronic Delivery

Leigh Barb Bacon
Meteorological Section
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, AL 36130-1463

**RE: BIG ESCAMBIA CREEK PLANT
1-HOUR SO₂ NAAQS AREA DESIGNATION MODELING**

Dear Ms. Bacon:

On behalf of Escambia Operating Co., LLC, an affiliate of Vanguard Operating LLC., (Vanguard), Golder Associates Inc. (Golder) is submitting the attached air dispersion modeling report for the 2010 1-hour average sulfur dioxide (SO₂) National Ambient Air Quality Standards (NAAQS) area designation modeling in order to characterize the air quality around the Big Escambia Creek (BEC) Plant (Facility/Permit No. 502-0007) located in Escambia County, Alabama. The BEC plant has been identified by the Alabama Department of Environmental Management (ADEM) as one of the priority sources and the designation process for the surrounding areas must be completed following the SO₂ Data Requirement Rule (DRR). Following consultation with ADEM, Vanguard chose to rely on the "modeling" option allowed by the DRR in order to characterize the air quality. Golder was contracted to complete the area designation modeling previously started by Vanguard. Modeling protocols were submitted to ADEM in June and December (revised) of 2016.

The modeling analysis has been performed according to the draft EPA guidance document "SO₂ NAAQS Designations Modeling Technical Assistance Document" (TAD) (August 2016) and modeling protocol submitted to ADEM. The modeling results are based on the use of actual hourly emissions data for the sulfur recovery unit and thermal oxidizer (source S1201) at the BEC Plant, which is the largest SO₂ emissions source at the facility. As shown by the modeling results, air quality in the surrounding area of the BEC Plant comply with the 2010 1-hour average SO₂ NAAQS.

Please find attached modeling report.

Should you have any questions, please do not hesitate to contact me at (352) 336-5600. Thank you for your time in this matter.

Sincerely,

GOLDER ASSOCIATES, INC.

Sal Mohammad, P.E.
Senior Engineer

cc: Swetha Pingali, Vanguard
Mark Fridel, Vanguard
Rick Gillam, EPA Region IV

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Golder Associates Inc.

6026 NW 1st Place
Gainesville, FL 32607 USA

Tel: (352) 336-5600 Fax: (352) 336-6603 www.golder.com

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