



TAMPA ELECTRIC

RECEIVED

MAY 07 2010

BUREAU OF
AIR REGULATION

May 4, 2010

Ms. Trina Vielhauer
Florida Department of Environmental Protection
Division of Air Resource Management
111 South Magnolia, Suite 4
Tallahassee, FL 32301

Via FedEx
Airbill No. 7986 3210 1775

**Re: Tampa Electric Company (TEC)
Big Bend Station
Title V Permit Number 0570039-039-AV
Notification of Insignificant Emissions and
Request for Generic Exemption**

Dear Ms. Vielhauer,

The purpose of this correspondence is to notify the Florida Department of Environmental Protection (Department) that Tampa Electric Company (TEC) intends to transport coal via truck to Big Bend Station beginning tomorrow, May 5, 2010.

Up to 5,000 tons of coal will be brought in by truck at frequent intervals and stored in the fuel yard. Big Bend Station will blend and transfer the coal using the normal processes as needed. This operation will not cause exceedance of any throughput limits. Particulate matter is the only affected pollutant. The additional truck traffic and truck unloading activity were evaluated to demonstrate that the project qualifies for a generic exemption and as an insignificant activity. The results of the emission calculations (attached) show that the emissions will be less than 0.1 tons. No permit conditions become applicable or not applicable as a result of this operation change.

TEC submits that this operation qualifies for a generic exemption from permitting requirements pursuant to the provisions of Rule 62-210.300(3)(b) F.A.C., Florida Administrative Code (F.A.C.). The activity is not subject to any unit specific applicable requirement. The activity will not result in the emission of lead or any hazardous air pollutants, and the activity will fall well below the 5 ton per year threshold for fugitive emissions of particulate matter. Emissions from this activity, in combination with the emissions of other units and activities of the facility, will not cause the facility to exceed any major source threshold either alone, or in combination with emissions from all other insignificant sources. This activity does not constitute a modification of any emissions unit at Big Bend Station.

Ms. Trina Vielhauer
May 4, 2010
Page 2 of 2

Enclosed are the emissions calculations and professional engineer's certification.

If you have any questions or need additional information, please contact Julie Ward or me at (813) 228-4740.

Sincerely,

A handwritten signature in black ink, appearing to read 'Byron T. Burrows', with a long horizontal flourish extending to the right.

Byron T. Burrows, P.E.
Manager - Air Programs
Environmental, Health & Safety

EHS/rik/BTB129

Enclosures

c/enc: Mr. Syed Arif, P.E., FDEP SW
Mr. Jeff Koerner, P.E., FDEP SW
Mr. Jason Waters, P.E., EPCHC

**TAMPA ELECTRIC COMPANY
BIG BEND STATION**

COAL TRUCK UNLOADING

Professional Engineer Certification

Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, the information presented by Tampa Electric Company (TEC) to the Department regarding the transport, storage and handling of coal at the TEC Big Bend Station is true, accurate, and complete based on my review of material provided by TEC engineering and environmental staff; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this submittal are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of air pollutants not regulated for an emissions unit, based solely upon the materials, information and calculations provided with this certification.

Signature

Date

(seal)

* Certification is applicable to the Tampa Electric Company notification of generic exemption to the Department regarding the truck unloading of coal at its Big Bend Station.

TAMPA ELECTRIC COMPANY
BIG BEND STATION

Emission Estimation Algorithm

$$E_A = k \times 0.0032 \times [(U / 5)^{1.3} / (M / 2)^{1.4}] \times TR \times [(1 - (CE / 100)) \times (1 \text{ ton} / 2,000 \text{ lb})]$$

$$E_H = k \times 0.0032 \times [(U / 5)^{1.3} / (M / 2)^{1.4}] \times TR \times [(1 - (CE / 100))]$$

E_A = PM/PM₁₀ emission rate; tons per year (tpy)
 E_H = PM/PM₁₀ emission rate; tons per hour (tph)
 k = particle size multiplier; dimensionless
 U = mean wind speed, miles per hour (mph)
 M = fuel moisture content; weight percent (%)
 TR = transfer rate; tons per year (tpy)
 CE = control efficiency; percent (%)

Source: Section 13.2.4.3, Eqn. (1), AP-42, November 2006.

Variable	Input data		Source
	Value		
k (PM)	0.74		AP-42
k (PM ₁₀)	0.35		AP-42
U	6.89	mph	Climate of the States (Tampa, FL), Third Edition, 1985
M	9.40	%	TEC data-Average of 2009 Weekly Fuel Composites
TR (tpy)	5,000	tpy	TEC data
TR (tph)			TEC data (Max 8 trucks/hr * 25 tons/truck)
CE	90	%	TEC data

Transfer Point	Emission Point ID	Control Efficiency (%)	Throughput (tpy)	Emission Rate	
				PM (tpy)	PM ₁₀ (tpy)
Non-TEC Fuel Truck Loading or Unloading	FH-068	90	5,000	0.00010	0.000049
Totals				0.00010	0.000049

Transfer Point	Emission Point ID	Control Efficiency (%)	Maximum Throughput (tph)	Emission Rate	
				PM (lb/hr)	PM ₁₀ (lb/hr)
Non-TEC Fuel Truck Loading or Unloading	FH-068	90	200	0.00824	0.003896
Totals				0.0082	0.0039

TAMPA ELECTRIC COMPANY
 BIG BEND STATION
 TRUCK TRAFFIC EMISSIONS

Emission Estimation Algorithm

$$E = k \times (s / 12)^a \times (W / 3)^b \times [(365-P)/365] \text{ VMT} \times [(1 - (CE / 100))] \times (1 \text{ ton} / 2,000 \text{ lb})$$

- E = PM/PM₁₀ emission rate; tons per year (tpy)
- k = empirical constant; dimensionless
- s = surface material silt content; percent (%)
- a = empirical constant; dimensionless
- W = mean vehicle weight; tons
- b = empirical constant; dimensionless
- M = surface material moisture content; weight percent (%)
- c = empirical constant; dimensionless
- P = days of rain >0.01 in. during year
- VMT = vehicle miles traveled; miles/year (mi/yr)
- CE = control efficiency; percent

Source: Section 13.2.2.2, Eqn. (1a), AP-42, November 2006.

2009 Data	
k (PM)	10.0
k (PM ₁₀)	2.6
s	2.8 %
a (PM)	0.8
a (PM ₁₀)	0.8
W (full)	38.0 tons
W (empty)	13.0 tons
b (PM)	0.5
b (PM ₁₀)	0.4
P	107.0
CE	80.0 %

	Emission Point ID	VMT (mi/yr)	2009 Emissions	
			PM (ton/yr)	PM ₁₀ (ton/yr)
Coal Trucks, Full	FH-072	61	0.0470	0.0095
Coal Trucks, Empty	FH-073	61	0.0470	0.0095
Totals			0.094	0.019