



TAMPA ELECTRIC

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BUREAU OF AIR REGULATION

July 27, 2000

Mr. Joe Kahn
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Via FedEx
Airbill No. 7923 5857 2956

Re: Tampa Electric Company
Gannon/Bayside Station
New Fuel Oil Storage Tank

Dear Mr. Kahn:

As we discussed, please find enclosed information on the proposed new No. 2 fuel oil storage tank to be constructed at Tampa Electric Company's (TEC) Gannon Station (to be renamed Bayside Station). The installation of this storage tank will mainly be to support fuel oil operation of the Bayside Station facilities once they are complete. In addition to the future Bayside Station needs, this tank will also support continuing operation of the existing Gannon Station facilities. Total potential emissions for this tank, as calculated using the EPA TANKS 4.0 program under worst case conditions, are well less than 5.0 tons per year.

Rule 62-210.300(3)(b)1., F.A.C. exempts emission units from permitting requirements if the emission unit qualifies for the "generic emissions unit" exemption criteria. These criteria include potential emissions of less than 5.0 tons per year and no unit-specific applicable requirements (the recordkeeping requirements of NSPS Subpart Kb are not considered to be "unit-specific" applicable requirements). Based on this information, it is TEC's conclusion that the proposed distillate fuel oil storage tank is exempt from FDEP permitting requirements.

Please review the rule cited above, along with the enclosed TANKS 4.0 emissions calculation report information and provide written concurrence that TEC's interpretation is correct. Thank you for your attention to this matter. If you have any concerns or questions feel free to contact me at (813) 641-5033.

Sincerely,

A handwritten signature in black ink, appearing to read "Jamie Hunter", is written over a large, stylized scribble.

Jamie Hunter
Consulting Engineer
Environmental Affairs

EP\gm\JJH928

c/enc: Mr. Al Linero -FDEP
Mr. Jerry Campbell -EPCHC

TAMPA ELECTRIC COMPANY
P. O. BOX 111 TAMPA, FL 33601-0111

(813) 228-4111

AN EQUAL OPPORTUNITY COMPANY
HTTP://WWW.TECOENERGY.COM

CUSTOMER SERVICE:
HILLSBOROUGH COUNTY (813) 223-0800
OUTSIDE HILLSBOROUGH COUNTY 1 (888) 223-0800

TANKS 4.0

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

| | |
|----------------------|--------------------------|
| User Identification: | 3 |
| City: | Tampa |
| State: | Florida |
| Company: | Tampa Electric Co |
| Type of Tank: | Vertical Fixed Roof Tank |
| Description: | Gannon/Bayside Tank |

Tank Dimensions

| | |
|--------------------------|----------------|
| Shell Height (ft): | 47.00 |
| Diameter (ft): | 171.00 |
| Liquid Height (ft): | 47.00 |
| Avg. Liquid Height (ft): | 20.00 |
| Volume (gallons): | 8,074,453.84 |
| Turnovers: | 16.10 |
| Net Throughput (gal/yr): | 130,000,000.00 |
| Is Tank Heated (y/n): | N |

Paint Characteristics

| | |
|--------------------|------------|
| Shell Color/Shade: | Gray/Light |
| Shell Condition: | Good |
| Roof Color/Shade: | Gray/Light |
| Roof Condition: | Good |

Roof Characteristics

| | |
|----------------------------|------|
| Type: | Cone |
| Height (ft): | 0.00 |
| Slope (ft/ft) (Cone Roof): | 0.00 |

Breather Vent Settings

| | |
|---------------------------|-------|
| Vacuum Settings (psig): | -0.03 |
| Pressure Settings (psig): | 0.19 |

Meteorological Data used in Emissions Calculations: Tampa, Florida (Avg Atmospheric Pressure = 14.76 psia)

TANKS 4.0 Emissions Report - Detail Format Liquid Contents of Storage Tank

| Mixture/Component | Month | Daily Liquid Surf. Temperatures (deg F) | | | Liquid Bulk Temp. (deg F) | Vapor Pressures (psia) | | | Vapor Mol. Weight | Liquid Mass Fract. | Vapor Mass Fract. | Mol. Weight | Basis for Vapor Pressure Calculations |
|---------------------------|-------|---|-------|-------|---------------------------|------------------------|--------|--------|-------------------|--------------------|-------------------|-------------|---------------------------------------|
| | | Avg. | Min. | Max. | | Avg. | Min. | Max. | | | | | |
| Distillate fuel oil no. 2 | All | 80.13 | 70.96 | 89.31 | 74.55 | 0.0123 | 0.0092 | 0.0162 | 130.0000 | | | 188.00 | Option 5: A=12.101, B=8907 |

TANKS 4.0 Emissions Report - Detail Format Detail Calculations (AP-42)

| | |
|--|--------------|
| <u>Annual Emission Calculations</u> | |
| Standing Losses (lb): | 3,496.3570 |
| Vapor Space Volume (cu ft): | 660,985.2276 |
| Vapor Density (lb/cu ft): | 0.0003 |
| Vapor Space Expansion Factor: | 0.0536 |
| Vented Vapor Saturation Factor: | 0.9816 |
| | |
| Tank Vapor Space Volume | |
| Vapor Space Volume (cu ft): | 660,985.2276 |
| Tank Diameter (ft): | 171.0000 |
| Vapor Space Outage (ft): | 28.7813 |
| Tank Shell Height (ft): | 47.0000 |
| Average Liquid Height (ft): | 20.0000 |
| Roof Outage (ft): | 1.7813 |
| | |
| Roof Outage (Cone Roof) | |
| Roof Outage (ft): | 1.7813 |
| Roof Height (ft): | 0.0000 |
| Roof Slope (ft/ft): | 0.0000 |
| Shell Radius (ft): | 85.5000 |
| | |
| Vapor Density | |
| Vapor Density (lb/cu ft): | 0.0003 |
| Vapor Molecular Weight (lb/lb-mole): | 130.0000 |
| Vapor Pressure at Daily Average Liquid | |
| Surface Temperature (psia): | 0.0123 |
| Daily Avg. Liquid Surface Temp. (deg. R): | 539.8029 |
| Daily Average Ambient Temp. (deg. F): | 72.3125 |
| Ideal Gas Constant R | |
| (psia cuft / (lb-mol-deg R)): | 10.731 |
| Liquid Bulk Temperature (deg. R): | 534.2225 |
| Tank Paint Solar Absorptance (Shell): | 0.5400 |
| Tank Paint Solar Absorptance (Roof): | 0.5400 |
| Daily Total Solar Insulation | |
| Factor (Btu/sqft day): | 1,539.1561 |
| | |
| Vapor Space Expansion Factor | |
| Vapor Space Expansion Factor: | 0.0536 |
| Daily Vapor Temperature Range (deg. R): | 36.7060 |
| Daily Vapor Pressure Range (psia): | 0.0070 |
| Breather Vent Press. Setting Range (psia): | 0.2200 |
| Vapor Pressure at Daily Average Liquid | |
| Surface Temperature (psia): | 0.0123 |
| Vapor Pressure at Daily Minimum Liquid | |
| Surface Temperature (psia): | 0.0092 |
| Vapor Pressure at Daily Maximum Liquid | |
| Surface Temperature (psia): | 0.0162 |
| Daily Avg. Liquid Surface Temp. (deg R): | 539.8029 |
| Daily Min. Liquid Surface Temp. (deg R): | 530.6264 |
| Daily Max. Liquid Surface Temp. (deg R): | 548.9794 |
| Daily Ambient Temp. Range (deg. R): | 18.6583 |
| | |
| Vented Vapor Saturation Factor | |
| Vented Vapor Saturation Factor: | 0.9816 |
| Vapor Pressure at Daily Average Liquid | |
| Surface Temperature (psia): | 0.0123 |
| Vapor Space Outage (ft): | 28.7813 |

TANKS 4.0

Emissions Report - Detail Format

Detail Calculations (AP-42)- (Continued)

| | |
|---|----------------------|
| Working Losses (lb): | 4,942.8070 |
| Vapor Molecular Weight (lb/lb-mole): | 130.0000 |
| Vapor Pressure at Daily Average Liquid Surface Temperature (psia): | 0.0123 |
| Annual Net Throughput (gal/yr.): | 130,000,000.0 000 |
| Annual Turnovers: | 16.1002 |
| Turnover Factor: | 1.0000 |
| Maximum Liquid Volume (gal): | 8,074,453.844 9 |
| Maximum Liquid Height (ft): | 47.0000 |
| Tank Diameter (ft): | 171.0000 |
| Working Loss Product Factor: | 1.0000 |
| | |
| Total Losses (lb): | 8,439.1640 |

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

| Components | Losses(lbs) | | Total Emissions |
|---------------------------|--------------|----------------|-----------------|
| | Working Loss | Breathing Loss | |
| Distillate fuel oil no. 2 | 4,942.81 | 3,496.36 | 8,439.16 |