

US EPA ARCHIVE DOCUMENT



Cheniere Energy, Inc.  
700 Milam Street, Suite 800  
Houston, Texas 77002  
phone: 713.375.5000  
fax: 713.375.6000

May 9, 2013

Ms. Aimee Wilson  
Air Permits Section (6PD-R)  
U.S. Environmental Protection Agency  
1445 Ross Avenue  
Dallas, TX 75202

**Re: Corpus Christi Pipeline Company, L.P.  
Sinton Compressor Station  
GHG Permit Application  
Updates to Permit Application**

Dear Ms. Wilson:

Corpus Christi Pipeline, L.P. (CCPL) proposes to construct and operate the Sinton Compressor Station, a natural gas compressor station in San Patricio County, Texas. An Environmental Protection Agency (EPA) Air Quality Permit Application was submitted by CCPL in August 2012 and supplemented in January and March 2013. At this time, CCPL is submitting updated emissions information for the Blowdown Silencers, Emergency Generator, and Process Fugitives. In addition, CCPL is updating the stack parameters for the Gas Compressors, Emergency Generator and Discharge Blowdown Silencer.

**Blowdown Silencer Updates**

Based on additional engineering and the refinement of operations and maintenance procedures, short-term emission rates for the Unit Blowdown Silencers (EPNs SCBDS1 and SCBDS2), Station Suction Blowdown Silencer (EPN SSBDS), and Station Discharge Blowdown Silencer (EPN SDBDS) are being updated to reflect 60-minute process simulations. Short-term emission rates from the above referenced sources were represented by 5-minute process simulations in the August 2012 submittal. This refinement is intended to more accurately reflect the statistical basis for a 1-hour averaging period.

In addition annual emission rates from the Station Suction and Station Discharge Blowdown Silencers have also been updated to reflect an increase from four events to six events, annually. The increase in blowdown events for the Station Suction and Station Discharge Blowdown Silencers is based on process knowledge for similar facilities, and is intended to provide operational flexibility.

The methane and carbon dioxide short-term and annual emissions rates from the Blowdown Silencers have been updated in the attached emission calculations and Table 1(a).

Emergency Generator Updates

Based on scheduling refinements, it is anticipated that the emergency generator will only be operated 100 hours per year for testing and power for essential systems during temporary power outages. Additionally, the short-term particulate matter (PM) emission rate was revised for the Emergency Generator to account for both condensable and filterable portions of PM. Based on the reduction in annual operating hours from 500 hours to 100 hours, and the updates to the short-term PM emission factor, the emissions for the Emergency Generator have been updated in the Table 1(a).

Additional Calculation Changes

Based on additional engineering refinements made during the National Ambient Air Quality Standards (NAAQS) modeling analysis and the State Health Effects Screening analysis, the following changes have been incorporated into the Table 1(a):

- The Station Discharge Blowdown Silencer stack height was increased from 20 feet to 24 feet.
- The Emergency Generator (EPN SCGEN1) stack height decreased from 30 feet to 15 feet.
- The Gas Turbine (EPNs SCPLC1 and SCPLC2) stack heights increased from 39 feet to 50 feet.
- The Gas Turbine exit velocity was decreased from 68 feet per second (fps) to 54 fps.

The second update is for the fugitive emissions. Emissions have been updated based on an updated estimate for the facility-wide component count, and have been included in the facility-wide GHG emissions totals.

Based on the proposed updates discussed above total estimated GHG emission for the Sinton Compressor Station are 156,727 tpy CO<sub>2</sub>e, an increase of 1,218 tpy. Updated emission calculations for the Blowdown Silencers, Emergency Generator, and Fugitives, along with an updated Table 1(a) representing the proposed changes are attached.

Should you have any questions about this filing, please feel free to contact the undersigned at (713) 375-5000.

Respectfully Submitted,

  
David F. Ayers  
Corpus Christi Pipeline, L.P.



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

|                                      |                 |                             |
|--------------------------------------|-----------------|-----------------------------|
| Date: 5/09/2013                      | Permit No.: TBD | Regulated Entity No.: TBD   |
| Area Name: Sinton Compressor Station |                 | Customer Reference No.: TBD |

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

| AIR CONTAMINANT DATA |         |                                     |                                                                                                       |                                          |
|----------------------|---------|-------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1. Emission Point    |         |                                     | 2. Component or Air Contaminant Name                                                                  |                                          |
| (A) EPN              | (B) FIN | (C) Name                            | 3. Air Contaminant Emission Rate                                                                      |                                          |
|                      |         |                                     | (A) Pound Per Hour                                                                                    | (B) TPY                                  |
| EQT001               | SCBDS1  | Titan 130 Unit A<br>Blowdown Stack  | CO <sub>2</sub><br>CH <sub>4</sub>                                                                    | 209.57<br>7,627.41                       |
| EQT002               | SCBDS2  | Titan 130 Unit B<br>Blowdown Stack  | CO <sub>2</sub><br>CH <sub>4</sub>                                                                    | 209.57<br>7,627.41                       |
| EQT003               | SSBDS   | Station Suction<br>Blowdown Stack   | CO <sub>2</sub><br>CH <sub>4</sub>                                                                    | 754.72<br>27,468.06                      |
| EQT004               | SDBDS   | Station Discharge<br>Blowdown Stack | CO <sub>2</sub><br>CH <sub>4</sub>                                                                    | 1,134.85<br>41,303.26                    |
| EQT005               | SCGEN1  | Emergency<br>Generator              | NO <sub>x</sub><br>PM/PM <sub>10</sub> /PM <sub>2.5</sub><br>CO<br>CH <sub>4</sub><br>CO <sub>2</sub> | 5.85<br>0.10<br>5.27<br>0.02<br>1,139.97 |
|                      |         |                                     |                                                                                                       | 0.29<br><0.01<br>0.26<br><0.01<br>57.00  |

EPN = Emission Point Number  
FIN = Facility Identification Number



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

|                                      |                 |                             |
|--------------------------------------|-----------------|-----------------------------|
| Date: 5/09/2013                      | Permit No.: TBD | Regulated Entity No.: TBD   |
| Area Name: Sinton Compressor Station |                 | Customer Reference No.: TBD |

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

| AIR CONTAMINANT DATA |         |                                      |      |               | EMISSION POINT DISCHARGE PARAMETERS |                          |                              |                    |                      |                  |                 |                  |
|----------------------|---------|--------------------------------------|------|---------------|-------------------------------------|--------------------------|------------------------------|--------------------|----------------------|------------------|-----------------|------------------|
| 1. Emission Point    |         | 4. UTM Coordinates of Emission Point |      |               | Source                              |                          |                              |                    |                      |                  |                 |                  |
| (A) EPN              | (B) FIN | (C) NAME                             | Zone | East (Meters) | North (Meters)                      | 5. Building Height (Ft.) | 6. Height Above Ground (Ft.) | 7. Stack Exit Data |                      |                  | 8. Fugitives    |                  |
|                      |         |                                      |      |               |                                     |                          | (A) Diameter (Ft.)           | (B) Velocity (FPS) | (C) Temperature (°F) | (A) Length (Ft.) | (B) Width (Ft.) | (C) Axis Degrees |
| EQT001               | SCBDS1  | Titan 130 Unit A Blowdown Stack      | 14   | 648,123       | 3,108,275                           | 15                       | 7                            | 109                | 80                   |                  |                 |                  |
| EQT002               | SCBDS2  | Titan 130 Unit B Blowdown Stack      | 14   | 648,123       | 3,108,280                           | 15                       | 7                            | 109                | 80                   |                  |                 |                  |
| EQT003               | SSBDS   | Station Suction Blowdown             | 14   | 648,123       | 3,108,286                           |                          | 20                           | 8                  | 105                  | 80               |                 |                  |
| EQT004               | SDBDS   | Station Discharge Blowdown Stack     | 14   | 648,123       | 3,108,291                           |                          | 24                           | 8                  | 237                  | 80               |                 |                  |
| EQT005               | SCGEN1  | Emergency Generator                  | 14   | 648,201       | 3,108,380                           |                          | 15                           | 1.333              | 95                   | 860              |                 |                  |

EPN = Emission Point Number  
 FIN = Facility Identification Number  
 TCEQ - 10153 (Revised 04/08) Table 1(a)  
 This form is for use by sources subject to air quality permit requirements and may be revised periodically. (APDG 5178 v5)



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

|                                      |                 |                             |
|--------------------------------------|-----------------|-----------------------------|
| Date: 5/09/2013                      | Permit No.: TBD | Regulated Entity No.: TBD   |
| Area Name: Sinton Compressor Station |                 | Customer Reference No.: TBD |

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

| AIR CONTAMINANT DATA |         |                                 |                                        |                                  |           |
|----------------------|---------|---------------------------------|----------------------------------------|----------------------------------|-----------|
| 4. Emission Point    |         |                                 | 5. Component or Air Contaminant Name   | 6. Air Contaminant Emission Rate |           |
| (A) EPN              | (B) FIN | (C) Name                        |                                        | (A) Pound Per Hour               | (B) TPY   |
| EQT006               | SCPLC1  | Gas Compressor<br>A – Titan 130 | NO <sub>x</sub>                        | 14.64                            | 64.11     |
|                      |         |                                 | CO                                     | 17.86                            | 78.21     |
|                      |         |                                 | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | 3.07                             | 13.46     |
|                      |         |                                 | CH <sub>4</sub>                        | 0.32                             | 1.41      |
|                      |         |                                 | CO <sub>2</sub>                        | 17,107.71                        | 74,931.78 |
|                      |         |                                 | N <sub>2</sub> O                       | 0.03                             | 0.14      |
| EQT007               | SCPLC2  | Gas Compressor<br>B – Titan 130 | NO <sub>x</sub>                        | 14.64                            | 64.11     |
|                      |         |                                 | CO                                     | 17.86                            | 78.21     |
|                      |         |                                 | PM/PM <sub>10</sub> /PM <sub>2.5</sub> | 3.07                             | 13.46     |
|                      |         |                                 | CH <sub>4</sub>                        | 0.32                             | 1.41      |
|                      |         |                                 | CO <sub>2</sub>                        | 17,107.71                        | 74,931.78 |
|                      |         |                                 | N <sub>2</sub> O                       | 0.03                             | 0.14      |
| FUG01                | SCFUG1  | Fugitive Emissions              | CH <sub>4</sub>                        | 1.66                             | 7.29      |



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

|                                      |                 |                             |
|--------------------------------------|-----------------|-----------------------------|
| Date: 5/09/2013                      | Permit No.: TBD | Regulated Entity No.: TBD   |
| Area Name: Sinton Compressor Station |                 | Customer Reference No.: TBD |

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

| AIR CONTAMINANT DATA |         |                                      |      |               | EMISSION POINT DISCHARGE PARAMETERS |                          |                               |                     |                    |                      |                  |                 |                  |
|----------------------|---------|--------------------------------------|------|---------------|-------------------------------------|--------------------------|-------------------------------|---------------------|--------------------|----------------------|------------------|-----------------|------------------|
| 2. Emission Point    |         | 5. UTM Coordinates of Emission Point |      |               | Source                              |                          |                               |                     |                    |                      |                  |                 |                  |
| (A) EPN              | (B) FIN | (C) NAME                             | Zone | East (Meters) | North (Meters)                      | 9. Building Height (Ft.) | 10. Height Above Ground (Ft.) | 11. Stack Exit Data |                    | 12. Fugitives        |                  |                 |                  |
|                      |         |                                      |      |               |                                     |                          |                               | (A) Diameter (Ft.)  | (B) Velocity (FPS) | (C) Temperature (°F) | (A) Length (Ft.) | (B) Width (Ft.) | (C) Axis Degrees |
| EQT006               | SCPLC1  | Gas Compressor A – Titan 130         | 14   | 648,148       | 3,108,369                           |                          | 50                            | 8.667               | 54                 | 917                  |                  |                 |                  |
| EQT007               | SCPLC2  | Gas Compressor B – Titan 130         | 14   | 648,168       | 3,108,369                           |                          | 50                            | 8.667               | 54                 | 917                  |                  |                 |                  |
| FUG01                | SCFUG1  | Fugitive Emissions                   | 14   | 648,127       | 3,108,263                           |                          |                               |                     |                    | amb                  | 200              | 300             | 0                |

EPN = Emission Point Number  
FIN = Facility Identification Number



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

|                                      |                 |                             |
|--------------------------------------|-----------------|-----------------------------|
| Date: 5/09/2013                      | Permit No.: TBD | Regulated Entity No.: TBD   |
| Area Name: Sinton Compressor Station |                 | Customer Reference No.: TBD |

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

| AIR CONTAMINANT DATA |          |                              |                                      |  |                                  |         |
|----------------------|----------|------------------------------|--------------------------------------|--|----------------------------------|---------|
| 7. Emission Point    |          |                              | 8. Component or Air Contaminant Name |  | 9. Air Contaminant Emission Rate |         |
| (A) EPN              | (B) FIN  | (C) Name                     |                                      |  | (A) Pound Per Hour               | (B) TPY |
| EQT006               | Startup  | Turbine A startup emissions  | NO <sub>x</sub>                      |  | 11.40                            | 0.10    |
|                      |          |                              | CO                                   |  | 1,061.40                         | 8.85    |
|                      |          |                              | CO <sub>2</sub>                      |  | 6,966.00                         | 58.05   |
| EQT007               | Startup  | Turbine B startup emissions  | NO <sub>x</sub>                      |  | 11.40                            | 0.10    |
|                      |          |                              | CO                                   |  | 1,061.40                         | 8.85    |
|                      |          |                              | CO <sub>2</sub>                      |  | 6,966.00                         | 58.05   |
| EQT006               | Shutdown | Turbine A shutdown emissions | NO <sub>x</sub>                      |  | 14.40                            | 0.12    |
|                      |          |                              | CO                                   |  | 1,245.60                         | 10.38   |
|                      |          |                              | CO <sub>2</sub>                      |  | 7,632.00                         | 63.60   |
| EQT007               | Shutdown | Turbine B shutdown emissions | NO <sub>x</sub>                      |  | 14.40                            | 0.12    |
|                      |          |                              | CO                                   |  | 1,245.60                         | 10.38   |
|                      |          |                              | CO <sub>2</sub>                      |  | 7,632.00                         | 63.60   |

EPN = Emission Point Number  
 FIN = Facility Identification Number  
 TCEQ - 10153 (Revised 04/08) Table 1(a)  
 This form is for use by sources subject to air quality permit requirements and may be revised periodically. (APDG 5178 v5)



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Table 1(a) Emission Point Summary

|                                      |                 |                             |
|--------------------------------------|-----------------|-----------------------------|
| Date: 5/09/2013                      | Permit No.: TBD | Regulated Entity No.: TBD   |
| Area Name: Sinton Compressor Station |                 | Customer Reference No.: TBD |

Review of applications and issuance of permits will be expedited by supplying all necessary information requested on this Table.

| AIR CONTAMINANT DATA |          |                                      |      | EMISSION POINT DISCHARGE PARAMETERS |                |                           |                               |                     |                    |                      |                  |                 |                  |
|----------------------|----------|--------------------------------------|------|-------------------------------------|----------------|---------------------------|-------------------------------|---------------------|--------------------|----------------------|------------------|-----------------|------------------|
| 3. Emission Point    |          | 6. UTM Coordinates of Emission Point |      |                                     | Source         |                           |                               |                     |                    |                      |                  |                 |                  |
| (A) EPN              | (B) FIN  | (C) NAME                             | Zone | East (Meters)                       | North (Meters) | 13. Building Height (Ft.) | 14. Height Above Ground (Ft.) | 15. Stack Exit Data |                    |                      | 16. Fugitives    |                 |                  |
|                      |          |                                      |      |                                     |                |                           |                               | (A) Diameter (Ft.)  | (B) Velocity (FPS) | (C) Temperature (°F) | (A) Length (Ft.) | (B) Width (Ft.) | (C) Axis Degrees |
| EQT006               | Startup  | Turbine A startup emissions          | 14   | 648,148                             | 3,108,369      |                           | 50                            | 8.667               | 54                 | 917                  |                  |                 |                  |
| EQT007               | Startup  | Turbine B startup emissions          | 14   | 648,168                             | 3,108,369      |                           | 50                            | 8.667               | 54                 | 917                  |                  |                 |                  |
| EQT006               | Shutdown | Turbine A shutdown emissions         | 14   | 648,148                             | 3,108,369      |                           | 50                            | 8.667               | 54                 | 917                  |                  |                 |                  |
| EQT007               | Shutdown | Turbine B shutdown emissions         | 14   | 648,168                             | 3,108,369      |                           | 50                            | 8.667               | 54                 | 917                  |                  |                 |                  |

EPN = Emission Point Number  
FIN = Facility Identification Number

Cheniere Corpus Christi Pipeline, L.P.

|                                                                         |                                       |                                 |
|-------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| Company<br>Cheniere Corpus Christi Pipeline, L.P.                       | Facility<br>Sinton Compressor Station |                                 |
| Descriptive Name of Emission Point<br>Titan 130 - Unit A Blowdown Stack | TEMP Subject Item ID<br>N/A           | Emission Point ID No.<br>EQT001 |

| Emissions Per Event <sup>(1)</sup> |           |           |           |          |
|------------------------------------|-----------|-----------|-----------|----------|
| Pollutant                          | 5 min     | 10 min    | 15 min    | 60 min   |
|                                    | (lb/hr)   | (lb/hr)   | (lb/hr)   | (lb/hr)  |
| CO <sub>2</sub>                    | 2,514.84  | 1,257.42  | 838.28    | 209.57   |
| CH <sub>4</sub>                    | 91,528.92 | 45,764.46 | 30,509.64 | 7,627.41 |
| CO <sub>2</sub> -e                 | -         | -         | -         | -        |

| Emissions Per Year <sup>(1)</sup> |          |          |          |           |
|-----------------------------------|----------|----------|----------|-----------|
| Pollutant                         | 3 Events | 6 Events | 9 Events | 12 Events |
|                                   | TPY      | TPY      | TPY      | TPY       |
| CO <sub>2</sub>                   | 0.31     | 0.63     | 0.94     | 1.26      |
| CH <sub>4</sub>                   | 11.44    | 22.88    | 34.32    | 45.76     |
| CO <sub>2</sub> -e                | 240.58   | 481.16   | 721.73   | 962.31    |

(1) Emission calculation methodology based upon process simulations using worst case scenario.

Cheniere Corpus Christi Pipeline, L.P.

|                                                                         |                                       |                                 |
|-------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| Company<br>Cheniere Corpus Christi Pipeline, L.P.                       | Facility<br>Sinton Compressor Station |                                 |
| Descriptive Name of Emission Point<br>Titan 130 - Unit B Blowdown Stack | TEMP Subject Item ID<br>N/A           | Emission Point ID No.<br>EQT002 |

| Emissions Per Event <sup>(1)</sup> |           |           |           |          |
|------------------------------------|-----------|-----------|-----------|----------|
| Pollutant                          | 5 min     | 10 min    | 15 min    | 60 min   |
|                                    | (lb/hr)   | (lb/hr)   | (lb/hr)   | (lb/hr)  |
| CO <sub>2</sub>                    | 2,514.84  | 1,257.42  | 838.28    | 209.57   |
| CH <sub>4</sub>                    | 91,528.92 | 45,764.46 | 30,509.64 | 7,627.41 |
| CO <sub>2</sub> -e                 | -         | -         | -         | -        |

| Emissions Per Year <sup>(1)</sup> |          |          |          |           |
|-----------------------------------|----------|----------|----------|-----------|
| Pollutant                         | 3 Events | 6 Events | 9 Events | 12 Events |
|                                   | TPY      | TPY      | TPY      | TPY       |
| CO <sub>2</sub>                   | 0.31     | 0.63     | 0.94     | 1.26      |
| CH <sub>4</sub>                   | 11.44    | 22.88    | 34.32    | 45.76     |
| CO <sub>2</sub> -e                | 240.58   | 481.16   | 721.73   | 962.31    |

(1) Emission calculation methodology based upon process simulations using worst case scenario.

Cheniere Corpus Christi Pipeline, L.P.

|                                                                      |                                       |                                 |
|----------------------------------------------------------------------|---------------------------------------|---------------------------------|
| Company<br>Cheniere Corpus Christi Pipeline, L.P.                    | Facility<br>Sinton Compressor Station |                                 |
| Descriptive Name of Emission Point<br>Station Suction Blowdown Stack | TEMP Subject Item ID<br>N/A           | Emission Point ID No.<br>EQT003 |

| Emissions Per Event <sup>(1)</sup> |            |            |            |           |
|------------------------------------|------------|------------|------------|-----------|
| Pollutant                          | 5 min      | 10 min     | 15 min     | 60 min    |
|                                    | (lb/hr)    | (lb/hr)    | (lb/hr)    | (lb/hr)   |
| CO <sub>2</sub>                    | 9,056.64   | 4,528.32   | 3,018.88   | 754.72    |
| CH <sub>4</sub>                    | 329,616.72 | 164,808.36 | 109,872.24 | 27,468.06 |
| CO <sub>2</sub> -e                 | -          | -          | -          | -         |

| Emissions Per Year <sup>(1)</sup> |          |          |          |          |
|-----------------------------------|----------|----------|----------|----------|
| Pollutant                         | 2 Events | 3 Events | 4 Events | 6 Events |
|                                   | TPY      | TPY      | TPY      | TPY      |
| CO <sub>2</sub>                   | 0.75     | 1.13     | 1.51     | 2.26     |
| CH <sub>4</sub>                   | 27.47    | 41.20    | 54.94    | 82.40    |
| CO <sub>2</sub> -e                | 577.58   | 866.38   | 1,155.17 | 1,732.75 |

*(1) Emission calculation methodology based upon process simulations using worst case scenario.*

Cheniere Corpus Christi Pipeline, L.P.

|                                                                        |                                       |                                 |
|------------------------------------------------------------------------|---------------------------------------|---------------------------------|
| Company<br>Cheniere Corpus Christi Pipeline, L.P.                      | Facility<br>Sinton Compressor Station |                                 |
| Descriptive Name of Emission Point<br>Station Discharge Blowdown Stack | TEMP Subject Item ID<br>N/A           | Emission Point ID No.<br>EQT004 |

| Emissions Per Event <sup>(1)</sup> |            |            |            |           |
|------------------------------------|------------|------------|------------|-----------|
| Pollutant                          | 5 min      | 10 min     | 15 min     | 60 min    |
|                                    | (lb/hr)    | (lb/hr)    | (lb/hr)    | (lb/hr)   |
| CO <sub>2</sub>                    | 13,618.20  | 6,809.10   | 4,539.40   | 1,134.85  |
| CH <sub>4</sub>                    | 495,639.12 | 247,819.56 | 165,213.04 | 41,303.26 |
| CO <sub>2</sub> -e                 | -          | -          | -          | -         |

| Emissions Per Year <sup>(1)</sup> |          |          |          |          |
|-----------------------------------|----------|----------|----------|----------|
| Pollutant                         | 2 Events | 3 Events | 4 Events | 6 Events |
|                                   | TPY      | TPY      | TPY      | TPY      |
| CO <sub>2</sub>                   | 1.13     | 1.70     | 2.27     | 3.40     |
| CH <sub>4</sub>                   | 41.30    | 61.95    | 82.61    | 123.91   |
| CO <sub>2</sub> -e                | 868.50   | 1,302.75 | 1,737.01 | 2,605.51 |

(1) Emission calculation methodology based upon process simulations using worst case scenario.

Cheniere Corpus Christi Pipeline, L.P.

| Company                                 | Facility                  |                       |
|-----------------------------------------|---------------------------|-----------------------|
| Cheniere Corpus Christi Pipeline, L.P.  | Sinton Compressor Station |                       |
| Descriptive Name of Emission Point      | Project No.               | Emission Point ID No. |
| Standby Generator - Waukesha VHP5904LTD | 287-011                   | EQT005                |

| Operating Data <sup>(1)</sup> |                                                |
|-------------------------------|------------------------------------------------|
| Manufacturer                  | Waukesha Dresser                               |
| Model                         | VHP5904LTD Gas Enginator                       |
| Rating                        | 1,328 bhp<br>7,346 Btu/bhp-hr<br>9.75 MMBtu/hr |
| Load Capacity                 | 100 %                                          |
| Fuel Type                     | Natural Gas                                    |
| Hours of Operations           | 100 hrs/year                                   |

| Pollutant                           | Emission Factor |          | Reference                                             | Emission Rates |                |                     |
|-------------------------------------|-----------------|----------|-------------------------------------------------------|----------------|----------------|---------------------|
|                                     |                 |          |                                                       | Avg<br>(lb/hr) | Max<br>(lb/hr) | Annual<br>(tons/yr) |
| NO <sub>x</sub>                     | 2.00            | g/bhp-hr | Manufacturer Specification                            | 5.85           | 5.85           | 0.29                |
| CO                                  | 1.80            | g/bhp-hr | Manufacturer Specification                            | 5.27           | 5.27           | 0.26                |
| PM <sub>10</sub> /PM <sub>2.5</sub> | 9.99E-03        | lb/MMBtu | AP-42 Table 3.2-2                                     | 0.10           | 0.10           | 0.00                |
| CO <sub>2</sub>                     | 116.89          | lb/MMBtu | 40 CFR 60 Part 98 Subpart C, Table C-1 <sup>(3)</sup> | 1,139.97       | 1,139.97       | 57.00               |
| N <sub>2</sub> O                    | 2.20E-04        | lb/MMBtu | 40 CFR 60 Part 98 Subpart C, Table C-2 <sup>(3)</sup> | 0.00           | 0.00           | 0.00                |
| CH <sub>4</sub>                     | 2.20E-03        | lb/MMBtu | 40 CFR 60 Part 98 Subpart C, Table C-2 <sup>(3)</sup> | 0.02           | 0.02           | 0.00                |
| CO <sub>2</sub> e <sup>(2)</sup>    | -               | -        | 40 CFR 60 Part 98 Subpart A, Table A-1                | -              | -              | 57.05               |

(1) Provided by: Cheniere Corpus Christi Pipeline, L.P.

(2) Global Warming Potentials (GWP) taken from 40 CFR 60 Part 98 Subpart A, Table A-1

(3) Emission factors converted from kg/MMBtu to lb/MMBtu

(4) Emission rates calculated as follows:

Example 1: Emission rate (lb/hr) = Fuel Consumption (MMBtu/hr) \* Emission Factor (lb/MMBtu)

Example 2: Emission rate (lb/hr) = Operating Rate (bhp) \* Emission Factor (g/bhp-hr) / 453.6 (g/lb)

Example 3: CO<sub>2</sub>e Emission rate (TPY) = CO<sub>2</sub> ER (TPY)\*GWP + N<sub>2</sub>O ER (TPY)\*GWP+ CH<sub>4</sub> ER (TPY)\*GWP

Example 4: Fuel Flowrate (MMscf/hr) = Fuel Consumption (MMBtu/hr) / Fuel Heating Value (Btu/scf)\*Conversion Factor (10<sup>6</sup> Btu/MMBtu)\*Conversion Factor (MMscf/10<sup>6</sup> scf)

Example 5: Emissions Rate (lb/hr) = Emission Factor (lb/MMscf)\*Fuel Flowrate (MMscf/hr)

Cheniere Corpus Christi Pipeline, L.P.

|                                                                 |                                              |                                       |
|-----------------------------------------------------------------|----------------------------------------------|---------------------------------------|
| <b>Company</b><br>Cheniere Corpus Christi Pipeline, L.P.        | <b>Facility</b><br>Sinton Compressor Station |                                       |
| <b>Descriptive Name of Emission Point</b><br>Fugitive Emissions | <b>TEMP Subject Item ID</b><br>NA            | <b>Emission Point ID No.</b><br>FUG01 |

| Pollutant                        | Emission Factor | Reference                                 | Emission Rates |                |                     |
|----------------------------------|-----------------|-------------------------------------------|----------------|----------------|---------------------|
|                                  |                 |                                           | Avg<br>(lb/hr) | Max<br>(lb/hr) | Annual<br>(tons/yr) |
| CH <sub>4</sub>                  | NA              | Client Provided                           | -              | 1.66           | 7.29                |
| CO <sub>2</sub>                  | NA              | Client Provided                           | -              | -              | -                   |
| CO <sub>2</sub> e <sup>(1)</sup> | NA              | 40 CFR 60 Part 98<br>Subpart A, Table A-1 | -              | -              | 153.09              |

(1) Global Warming Potentials (GWP) taken from 40 CFR 60 Part 98 Subpart A, Table A-1

(2) All emission factors taken from Table 4 for Oil and Gas Production Operations in "Emissions for Equipment Leak Fugitive Components"  
(Jan, 2008) - Addendum to RG-350A

| Component Name     | Stream Type       | Number of Components | Emission Factor | Uncontrolled Emissions Rates |          |
|--------------------|-------------------|----------------------|-----------------|------------------------------|----------|
|                    |                   |                      |                 | lb/hr                        | Ton/year |
| Valves             | Gas               | 70                   | 9.92E-03        | 0.69                         | 3.04     |
| Pumps              | Gas               | 0                    | 5.29E-03        | 0.00                         | 0.00     |
| Flanges/Connectors | Gas               | 140                  | 8.60E-04        | 0.12                         | 0.53     |
| Compressors        | Gas               | 2                    | 1.94E-02        | 0.04                         | 0.17     |
| Relief Valves      | Gas               | 10                   | 1.94E-02        | 0.19                         | 0.85     |
| Open-ended Lines   | Gas               | 7                    | 4.41E-03        | 0.03                         | 0.14     |
| Connectors         | Gas               | 0                    | 4.40E-04        | 0.00                         | 0.00     |
| Others             | Gas               | 0                    | 1.94E-02        | 0.00                         | 0.00     |
| Process Drains     | Gas               | 7                    | 1.94E-02        | 0.14                         | 0.59     |
| Valves             | Water / Light Oil | 15                   | 2.16E-04        | 0.00                         | 0.01     |
| Pumps              | Water / Light Oil | 1                    | 5.20E-05        | 0.00                         | 0.00     |
| Flanges/Connectors | Water / Light Oil | 26                   | 6.00E-06        | 0.00                         | 0.00     |
| Compressors        | Water / Light Oil | 0                    | 3.09E-02        | 0.00                         | 0.00     |
| Relief Valves      | Water / Light Oil | 2                    | 3.09E-02        | 0.06                         | 0.27     |
| Open-ended Lines   | Water / Light Oil | 7                    | 5.50E-04        | 0.00                         | 0.02     |
| Connectors         | Water / Light Oil | 7                    | 2.43E-04        | 0.00                         | 0.01     |
| Others             | Water / Light Oil | 0                    | 3.09E-02        | 0.00                         | 0.00     |
| Process Drains     | Water / Light Oil | 7                    | 3.09E-02        | 0.22                         | 0.95     |
| Valves             | Light Oil         | 15                   | 5.50E-03        | 0.08                         | 0.36     |
| Pumps              | Light Oil         | 1                    | 2.87E-02        | 0.03                         | 0.13     |
| Flanges/Connectors | Light Oil         | 25                   | 2.43E-04        | 0.01                         | 0.03     |
| Compressors        | Light Oil         | 0                    | 1.65E-02        | 0.00                         | 0.00     |
| Relief Valves      | Light Oil         | 2                    | 1.65E-02        | 0.03                         | 0.14     |
| Open-ended Lines   | Light Oil         | 7                    | 3.09E-03        | 0.02                         | 0.09     |
| Connectors         | Light Oil         | 7                    | 4.63E-04        | 0.00                         | 0.01     |
| Others             | Light Oil         | 0                    | 1.65E-02        | 0.00                         | 0.00     |
| Process Drains     | Light Oil         | 7                    | 1.65E-02        | 0.12                         | 0.51     |
| THC                |                   |                      |                 | 96.74                        | 7.59     |
| NMHCs              |                   |                      |                 | 3.82                         | 0.30     |
| NMNEHCs(VOCs)      |                   |                      |                 | 1.06                         | 0.08     |
| HEXANE             |                   |                      |                 | 0.17                         | 0.01     |