**TRANSMITTAL**

**Date:** 2/24/2020  
**Job No.** 03.003354.04  
**Attention:** Mr. Joseph Martella

**Re:** Liquefaction Facility Project  
**STRAP Perimeter Air Quality Monitoring (AQM)**  
121 Terminal Road/ 642 Allens Avenue  
Providence, Rhode Island  
Site Remediation File No. SR-28-1152

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**To:** Rhode Island Department of Environmental Management  
Office of Waste Management  
235 Promenade Street  
Providence, Rhode Island 02908

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We are sending you:

- [ ] Shop Drawings  
- [X] Attached  
- [ ] Change Order  
- [ ] Samples  
- [ ] Copy of Letter  
- [ ] Prints  
- [ ] Plans  
- [ ] Specifications  
- [ ] Under Separate Cover, the following Items:  

**How Shipped:**

- [X] Via Email  
- [ ] Courier  
- [ ] Regular Mail  
- [ ] Hand Delivered/Picked Up

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**Description**

AQM Station 1 Graph  
AQM Station 2 Graph  
AQM Station 3 Graph  
AQM Station 4 Graph  
AQM Station 5 Graph  
AQM Station 6 Graph  
Summary Figure

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**THESE ARE TRANSMITTED** as Checked Below:

- [ ] For Approval  
- [ ] Approved as Submitted  
- [ ] Resubmit Copies for Approval  
- [X] For Your Use  
- [ ] Approved as Noted  
- [ ] Submit Copies for Distribution  
- [ ] As Requested  
- [ ] Returned for Corrections  
- [ ] Return Corrected Prints  
- [ ] For Review and Comment  
- [ ] FOR BIDS DUE:  

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**Comments:**

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**Copy To:** Amy Willoughby - National Grid LNG LLC  
William Howard - National Grid LNG LLC  
Signed: Sophia Narkiewicz, P.E.  
Project Manager

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*If enclosures are not as noted, kindly notify us at once.*
Prepared by GZA on behalf of National Grid LNG LLC
Liquefaction Facility Project -
STRAP Perimeter Air Quality Monitoring (AQM)
121 Terminal Road / 642 Allens Avenue, Providence, Rhode Island

2/22/2020

GZA Job No. 03.0033554.04

Date
Time
Constituent
Observed Range of Sustained Readings
Response Actions Performed

2/20/2020
16:19-16:26
TVOC
1.08-1.45 ppmv
No actions were taken, readings were not attributed to Site work

Data Summary Statistics
TVOCs average concentration 0.06 ppm
TVOCs maximum concentration 1.45 ppm
TVOCs action level 1 ppm
PM10 average concentration 9.62 µg/m³
PM10 maximum concentration 234.40 µg/m³
PM10 action level 150 µg/m³

Equipment Notes
None

Notes:
1) Transient readings were conducted over a one minute time period. A reading is sustained if it is held for over a five minute time period.
2) The location of each AQM Station is presented on the attached summary figure.
3) Air quality monitoring performed in accordance with the May 12, 2017 Short Term Response Action Plan (STRAP), the October 11, 2017 STRAP Addendum (including Attachment N - Clarifications to the Proposed Air Monitoring Program for STRAP Activities) and the October 27, 2017 Short Term Response Action Approval Letter issued by RIDEM. Monitoring conducted during active STRAP activities.
Prepared by GZA on behalf of National Grid LNG LLC
Liquefaction Facility Project - STRAP Perimeter Air Quality Monitoring (AQM)
121 Terminal Road / 642 Allens Avenue, Providence, Rhode Island

GZA Job No. 03.003554.04
2/22/2020

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**TVOCs average concentration**
- 0.04 ppm

**PM10 average concentration**
- 3.99 µg/m$^3$

**TVOCs maximum concentration**
- 0.69 ppmv

**PM10 maximum concentration**
- 43.69 µg/m$^3$

**PM10 action level**
- 150 µg/m$^3$

**TVOC Action Level**
- 1.0 ppmv

**PM10 Action Level**
- 150 µg/m$^3$

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**Notes:**
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**AQM Station 2**
1-minute average concentrations

Total Volatile Organic Compounds (TVOC) data is on the left axis and Respirable Dust (Particulate Matter less than 10 µm (PM10)) data is on the right axis.

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**Data Summary Statistics**

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVOCs average concentration</td>
<td>0.04 ppm</td>
</tr>
<tr>
<td>TVOCs maximum concentration</td>
<td>0.69 ppm</td>
</tr>
<tr>
<td>TVOCs action level</td>
<td>1 ppm</td>
</tr>
<tr>
<td>PM10 average concentration</td>
<td>3.99 µg/m$^3$</td>
</tr>
<tr>
<td>PM10 maximum concentration</td>
<td>43.69 µg/m$^3$</td>
</tr>
<tr>
<td>PM10 action level</td>
<td>150 µg/m$^3$</td>
</tr>
</tbody>
</table>

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**Equipment Notes**

None

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**Date** | **Time** | **Constituent** | **Observed Range of Sustained Readings** | **Response Actions Performed**
--- | --- | --- | --- | ---
None

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**Notes:**
1) Transient readings were conducted over a one minute time period. A reading is sustained if it is held for over a five minute time period.
2) The location of each AQM Station is presented on the attached summary figure.
3) Air quality monitoring performed in accordance with the May 12, 2017 Short Term Response Action Plan (STRAP), the October 11, 2017 STRAP Addendum (including Attachment N - Clarifications to the Proposed Air Monitoring Program for STRAP Activities) and the October 27, 2017 Short Term Response Action Approval Letter issued by RIDEM. Monitoring conducted during active STRAP activities.
Data Summary Statistics

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Data</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVOCs average concentration</td>
<td>0.01</td>
<td>ppm</td>
</tr>
<tr>
<td>TVOCs maximum concentration</td>
<td>0.54</td>
<td>ppm</td>
</tr>
<tr>
<td>TVOCs action level</td>
<td>1</td>
<td>ppm</td>
</tr>
<tr>
<td>PM10 average concentration</td>
<td>6.24</td>
<td>µg/m³</td>
</tr>
<tr>
<td>PM10 maximum concentration</td>
<td>56.16</td>
<td>µg/m³</td>
</tr>
<tr>
<td>PM10 action level</td>
<td>150</td>
<td>µg/m³</td>
</tr>
</tbody>
</table>

Notes:

1) Transient readings were conducted over a one minute time period. A reading is sustained if it is held for over a five minute time period.
2) The location of each AQM Station is presented on the attached summary figure.
3) Air quality monitoring performed in accordance with the May 12, 2017 Short Term Response Action Plan (STRAP), the October 11, 2017 STRAP Addendum (including Attachment N - Clarifications to the Proposed Air Monitoring Program for STRAP Activities) and the October 27, 2017 Short Term Response Action Approval Letter issued by RIDEM. Monitoring conducted during active STRAP activities.
Data Summary Statistics

<table>
<thead>
<tr>
<th>Constituent</th>
<th>TVOCs average concentration</th>
<th>TVOCs maximum concentration</th>
<th>TVOCs action level</th>
<th>PM10 average concentration</th>
<th>PM10 maximum concentration</th>
<th>PM10 action level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0.03 ppm</td>
<td>0.09 ppm</td>
<td>1.0 ppmv</td>
<td>12.42 µg/m³</td>
<td>135.80 µg/m³</td>
<td>150 µg/m³</td>
</tr>
</tbody>
</table>

Notes:
1) Transient readings were conducted over a one minute time period. A reading is sustained if it is held for over a five minute time period.
2) The location of each AQM Station is presented on the attached summary figure.
3) Air quality monitoring performed in accordance with the May 12, 2017 Short Term Response Action Plan (STRAP), the October 11, 2017 STRAP Addendum (including Attachment N - Clarifications to the Proposed Air Monitoring Program for STRAP Activities) and the October 27, 2017 Short Term Response Action Approval Letter issued by RIDEM. Monitoring conducted during active STRAP activities.
AQM Station 5
1-minute average concentrations

Total Volatile Organic Compounds (TVOC) data is on the left axis and Respirable Dust (Particulate Matter less than 10 µm (PM10)) data is on the right axis.

TVOC Action Level = 1.0 ppmv
PM10 Action Level = 150 µg/m³

Station was down from 10:27 to 13:00 due to human error. TVOCs and respirable dust readings from all other stations and the work zone were less than action levels.

Notes:
1) Transient readings were conducted over a one minute time period. A reading is sustained if it is held for over a five minute time period.
2) The location of each AQM Station is presented on the attached summary figure.
3) Air quality monitoring performed in accordance with the May 12, 2017 Short Term Response Action Plan (STRAP), the October 11, 2017 STRAP Addendum (including Attachment N - Clarifications to the Proposed Air Monitoring Program for STRAP Activities) and the October 27, 2017 Short Term Response Action Approval Letter issued by RIDEM. Monitoring conducted during active STRAP activities.
### AQM Station 6

#### 1-minute average concentrations

Total Volatile Organic Compounds (TVOC) data is on the left axis and Respirable Dust (Particulate Matter less than 10 µm (PM10)) data is on the right axis.

- **PM10 Action Level** = 150 µg/m³
- **TVOC Action Level** = 1.0 ppmv

#### TVOC Concentration (ppmv) vs. PM10 (respirable dust) Concentration (µg/m³)

- No Work Conducted

#### Data Summary Statistics

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Data Summary Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVOCs average concentration</td>
<td>0.02 ppm</td>
</tr>
<tr>
<td>TVOCs maximum concentration</td>
<td>0.10 ppm</td>
</tr>
<tr>
<td>TVOCs action level</td>
<td>1 ppm</td>
</tr>
<tr>
<td>PM10 average concentration</td>
<td>7.60 µg/m³</td>
</tr>
<tr>
<td>PM10 maximum concentration</td>
<td>45.94 µg/m³</td>
</tr>
<tr>
<td>PM10 action level</td>
<td>150 µg/m³</td>
</tr>
</tbody>
</table>

#### Equipment Notes

None

#### Notes:

1) Transient readings were conducted over a one minute time period. A reading is sustained if it is held for over a five minute time period.

2) The location of each AQM Station is presented on the attached summary figure.

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REFERENCE NOTES:

1. BASE MAP DEVELOPED FROM A GOOGLE PROFESSIONAL ELECTRONIC IMAGE FILE. DIGITAL AERIAL ORTHOPHOTOGRAPHY WAS PUBLISHED IN FEBRUARY 2018.

2. SITE BOUNDARIES ARE APPROXIMATE.

3. PERIMETER AIR MONITORING PROGRAM CONDUCTED AS DESCRIBED IN THE MAY 12, 2017 SHORT TERM RESPONSE ACTION PLAN (STRAP) AND OCTOBER 11, 2017 STRAP ADDENDUM, WHICH WERE APPROVED BY RIDEM WITH THE OCTOBER 27, 2017 STRAP APPROVAL.

LEGEND:

- 642 ALLENS AVENUE FORMER MGP SITE
- PROJECT WORK SITE
- STRAP AREA (LIMITS OF GROUNDWATER AND SOIL DISTURBANCE)
- AIR QUALITY MONITORING (AQM) STATION

NATIONAL GRID LIQUEFACTION FACILITY
PERIMETER AIR MONITORING PROGRAM
PROVIDENCE, RHODE ISLAND

Summary Figure
Week of 2-17-2020