STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF:

* Settlement Tracking No.
* SA-AE-10-0058
*
* Enforcement Tracking No.
* AE-CN-07-0203
*

SHELL CHEMICAL LP

AI # 26336

PROCEEDINGS UNDER THE LOUISIANA
ENVIRONMENTAL QUALITY ACT
LA. R.S. 30:2001, ET SEQ.

SETTLEMENT

The following Settlement is hereby agreed to between Shell Chemical LP ("Respondent") and the Department of Environmental Quality ("DEQ" or "the Department"), under authority granted by the Louisiana Environmental Quality Act, La. R.S. 30:2001, et seq. ("the Act").

I

Respondent is a limited partnership that owns and/or operates a chemical plant facility in Norco, St. Charles Parish, Louisiana ("the Facility").

II

On February 15, 2008, the Department issued to Respondent a Consolidated Compliance Order & Notice of Potential Penalty, Enforcement No. AE-CN-07-0203, which was based upon the following findings of fact:

The Respondent owns and or operates Shell Chemical East Site (facility) located at 15536 River Road in Norco, St. Charles Parish, Louisiana. The facility operates the Olefins Plant under Title V Permit No. 2520-V2 issued on January 21, 2000.
On or about November 26, 2007, a file review was conducted due to an incident (T-101129, S07-4044) reported to the Department on November 19, 2007. The Respondent requested a meeting with the Department that was conducted on November 26, 2007. While the Department’s investigation is not yet complete, the following violations were noted during the course of the file review:

A. On or about November 19, 2007, the Respondent reported to the Department a release of chemicals to the atmosphere of unknown quantities from the relief valve RV2293, a control device, located at the suction end of the PGE compressor. Control equipment, as defined by LAC 33:III.111, is “any device or contrivance, operating procedure or abatement scheme used to prevent or reduce air pollution.” On or about November 26, 2007, a meeting was conducted with the Department at the request of the Respondent to provide more information regarding the ongoing investigation and immediate corrective actions taken in securing the leak upon discovery. In the meeting, the Respondent reported emissions from relief valve RV2293 were routed to a vent permitted as FUGITIVE EMISSIONS—OL-5-Olefins Unit No. 5 (OL-5) (EPN 3007-95) that emits directly to the atmosphere, and the release to the atmosphere occurred due to the failure of relief valve RV2293 that under normal conditions should not activate. The total estimated unauthorized emissions to the atmosphere are summarized in the following table reported in from the Respondent’s email submitted to the Department dated November 21, 2007:

<table>
<thead>
<tr>
<th>Component</th>
<th>Estimated Pounds Released</th>
<th>Estimated Tons Released</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene (Mixed Isomers)²</td>
<td>64,000</td>
<td>32</td>
</tr>
<tr>
<td>Isobutene</td>
<td>216,000</td>
<td>108</td>
</tr>
<tr>
<td>Methane</td>
<td>368,000</td>
<td>184</td>
</tr>
<tr>
<td>Methyl Acetylene and Propadie(ne)</td>
<td>8,000</td>
<td>4</td>
</tr>
<tr>
<td>N-Butane</td>
<td>4,000</td>
<td>2</td>
</tr>
<tr>
<td>N-Pentane</td>
<td>8,000</td>
<td>4</td>
</tr>
<tr>
<td>Petroleum, C-5-C-18 (Partial Fraction)</td>
<td>436,000</td>
<td>218</td>
</tr>
<tr>
<td>Component</td>
<td>Estimated Pounds Released</td>
<td>Estimated Tons Released</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Propylene (Propene)</td>
<td>568,000</td>
<td>284</td>
</tr>
<tr>
<td>Heptene</td>
<td>32,000</td>
<td>16</td>
</tr>
<tr>
<td>Toluene</td>
<td>124,000</td>
<td>62</td>
</tr>
<tr>
<td>1-Hexene</td>
<td>32,000</td>
<td>16</td>
</tr>
<tr>
<td>Propane</td>
<td>24,000</td>
<td>12</td>
</tr>
<tr>
<td>1,3-Butadiene</td>
<td>184,000</td>
<td>92</td>
</tr>
<tr>
<td>Acetylene</td>
<td>8,000</td>
<td>4</td>
</tr>
<tr>
<td>Benzene</td>
<td>176,000</td>
<td>88</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>4,000</td>
<td>2</td>
</tr>
<tr>
<td>Carbon Dioxide (CO₂)</td>
<td>4,000</td>
<td>2</td>
</tr>
<tr>
<td>Ethane</td>
<td>144,000</td>
<td>72</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>16,000</td>
<td>8</td>
</tr>
<tr>
<td>Ethylene</td>
<td>864,000</td>
<td>432</td>
</tr>
<tr>
<td>Hydrogen (H₂)</td>
<td>24,000</td>
<td>12</td>
</tr>
<tr>
<td>2-Methyl-2-Butene</td>
<td>40,000</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,348,000</strong></td>
<td><strong>1674</strong></td>
</tr>
</tbody>
</table>

Louisiana Toxic Air Pollutants:
1. Class I Known and Probable Carcinogens
2. Class II Suspected Human Carcinogens or Suspected Reproductive Toxins
3. Class III Acute and Chronic (Non-Carcinogenic) Toxins

The failure of the RV2293 is a violation of the Louisiana Air Quality Regulations, in particular LAC 33:III.905 which states, “When facilities have been installed on a property, they shall be used and diligently maintained in proper working order whenever any emissions are being made which can be controlled by the facilities, even though the ambient air quality standards in affected areas are not exceeded.” This is also a violation La R.S. 30:2057(A)(1) and 30:2057(A)(2).

B. The cumulative release of pollutants to the atmosphere of the State of Louisiana exceeded the maximum emission rates for FUGITIVE EMISSIONS—OL-5-Olefins Unit No. 5 (OL-5) (EPN 3007-95):
<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Maximum Emission Rate (tons/year)</th>
<th>Estimated Total Tons Atmospheric Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3 Butadiene</td>
<td>4.32</td>
<td>92</td>
</tr>
<tr>
<td>Benzene</td>
<td>3.40</td>
<td>88</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>0.22</td>
<td>8</td>
</tr>
<tr>
<td>Toluene</td>
<td>2.18</td>
<td>62</td>
</tr>
<tr>
<td>Xylene (Mixed Isomers)</td>
<td>1.48</td>
<td>32</td>
</tr>
</tbody>
</table>

1 Title V Permit No. 2520-V2 Issued January 21, 2000  
2 Estimated Release as submitted by email on November 21, 2007

Each occurrence of emissions above the permitted maximum emission rate for emission point number EPN 3007-95 is a violation of LAC 33:III.501.C.4, General Condition 2 of Title V Permit No. 2520-V2, La R.S. 30:2057(A)(1) and 30:2057(A)(2).

C. On or about November 26, 2007, the Respondent submitted the seven day written notification to the Department. The seven day written notification information requirements are specified in LAC 33:1.3925. LAC 33:1.3925.B.3 states, “Written notification reports required by LAC 33:1.3915, 3917, and 3919 shall include, but not be limited to, the following information: date(s), time(s), and duration of the unauthorized discharge, and, if not corrected, the anticipated time it is expected to continue.” In their report, the Respondent failed to include the date(s), time(s), and duration of the discharge. LAC 33:1.3925.B.5 states that the report shall contain “the common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and the best estimate for amounts of any or all released pollutants (total amount of each compound expressed in pounds, including calculations)” The Respondent failed to include the best estimate calculations in the seven day written notification. This is a violation of Title V Permit No. 2520-V2, LAC 33:1.3925, LAC 33:III.501.C.4, La R.S. 30:2057(A)(1) and 30:2057(A)(2).

D. On or about November 19, 2007, the Respondent conducted prompt notification to the Department through Single Point of Contact. The prompt notification information requirements are specified in LAC 33:1.3923. LAC 33:1.3923.C.5 states the report shall contain “the common of scientific chemical name, the U.S. Department of Transportation hazard classification, and the best estimate amounts of
any or all discharged pollutants” The Respondent failed to include the best estimate calculations in the prompt notification. This is a violation of Title V Permit No. 2520-V2, LAC 33:I.3923.C, LAC 33:III.501.C.4, La R.S. 30:2057(A)(1) and La R.S. 30:2057(A)(2).

III

In response to the Consolidated Compliance Order & Notice of Potential Penalty (CONOPP), Respondent made a timely request for a hearing.

IV

Respondent denies it committed any violations or that it is liable for any fines, forfeitures and/or penalties.

V

Nonetheless, Respondent, without making any admission of liability under state or federal statute or regulation, agrees to pay, and the Department agrees to accept, a payment in the amount of EIGHTY-FIVE THOUSAND AND NO/100 DOLLARS ($85,000.00), of which One Thousand Two Hundred Eighty-Eight and 04/100 Dollars ($1,288.04) represents the Department’s enforcement costs, in settlement of the claims set forth in this agreement. The total amount of money expended by Respondent on cash payments to the Department as described above, shall be considered a civil penalty for tax purposes, as required by La. R.S. 30:2050.7(E)(1).

VI

Respondent further agrees that the Department may consider the inspection report(s), the Consolidated Compliance Order & Notice of Potential Penalty and this Settlement for the purpose of determining compliance history in connection with any future enforcement or permitting action by the Department against Respondent, and in any such action Respondent shall be estopped from
objecting to the above-referenced documents being considered as proving the violations alleged herein for the sole purpose of determining Respondent's compliance history.

VII

This agreement shall be considered a final order of the secretary for all purposes, including, but not limited to, enforcement under La. R.S. 30:2025(G)(2), and Respondent hereby waives any right to administrative or judicial review of the terms of this agreement, except such review as may be required for interpretation of this agreement in any action by the Department to enforce this agreement.

VIII

This settlement is being made in the interest of settling the state's claims and avoiding for both parties the expense and effort involved in litigation or an adjudicatory hearing. In agreeing to the compromise and settlement, the Department considered the factors for issuing civil penalties set forth in LSA- R. S. 30:2025(E) of the Act. Respondent and the Department agree that this settlement shall comprise and settle all findings of fact and allegations of violations contained in Paragraph II of this agreement.

IX

The Respondent has caused a public notice advertisement to be placed in the official journal of the parish governing authority in St. Charles Parish, Louisiana. The advertisement, in form, wording, and size approved by the Department, announced the availability of this settlement for public view and comment and the opportunity for a public hearing. Respondent has submitted an original proof-of-publication affidavit and an original public notice to the Department and, as of the date this Settlement is executed on behalf of the Department, more than forty-five (45) days have elapsed since publication of the notice.

6
XI

Payment is to be made within thirty (30) days from notice of the Secretary's signature. If payment is not received within that time, this Agreement is voidable at the option of the Department. Payments are to be made by check, payable to the Department of Environmental Quality, and mailed or delivered to the attention of Accountant Administrator, Financial Services Division, Department of Environmental Quality, Post Office Box 4303, Baton Rouge, Louisiana, 70821-4303. Each payment shall be accompanied by a completed Settlement Payment Form (Exhibit A).

XII

In consideration of the above, any claims for penalties are hereby compromised and settled in accordance with the terms of this Settlement.

XIII

Each undersigned representative of the parties certifies that he or she is fully authorized to execute this Settlement Agreement on behalf of his or her respective party, and to legally bind such party to its terms and conditions.
SHELL CHEMICAL LP

BY: Donald W. Weaver

(Signature)

Print)

TITLE: NARCOY Complex GM - Attorney in Fact

THUS DONE AND SIGNED in duplicate original before me this 17th day of
May 2011, at New Orleans, LA 70179

GREGORY A. MILLER
Notary Public
LSBA #19063
NOTARY #15328

(Stamped or Print)

LOUISIANA DEPARTMENT OF
ENVIRONMENTAL QUALITY
Peggy M. Hatch, Secretary

BY: Cheryl Sonnier Nolan, Assistant Secretary
Office of Environmental Compliance

THUS DONE AND SIGNED in duplicate original before me this 25th day of
August 2011, at Baton Rouge, Louisiana.

Drana King
NOTARY PUBLIC (ID # 20592)

(Stamped or Print)

Preliminary Approval:
Cheryl Sonnier Nolan, Assistant Secretary