

**STATE OF LOUISIANA**

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**IN THE MATTER OF:**

**SHELL CHEMICAL LP**

**AI # 1136**

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

\* **Settlement Tracking No.**  
\* **SA-AE-13-0034**  
\*  
\* **Enforcement Tracking No.**  
\* **AE-CN-06-0127**  
\*  
\* **Docket No. 2012-16233-EQ**  
\*

**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 Partnership that owns and/or operates a chemical manufacturing facility located in Ascension Parish, Louisiana (“the Facility”).

**II**

On July 25, 2011, the Department issued to Respondent a Consolidated Compliance Order & Notice of Potential Penalty, Enforcement No. AE-CN-06-0127, which was based upon the following findings of fact:

The Respondent owns and/or operates the Geismar Plant, an existing chemical manufacturing complex located at 7594 Louisiana Highway 75 in Geismar, Ascension Parish, Louisiana. The facility currently operates under the following air permits:

<b>Permit Number</b>	<b>Issued Date</b>	<b>Expiration Date</b>
PSD-LA-611(M1)	July 2, 2007	July 2, 2017
PSD-LA-647(M3)	July 23, 2007	July 23, 2017
2729-V1	May 16, 2007	May 16, 2012
3001-V3	August 3, 2007	August 3, 2012
2669-V5	December 18, 2009	July 12, 2012
2136-V5	April 27, 2010	July 3, 2012
2185-V3	June 24, 2010	August 28, 2012
2057-V5	June 24, 2010	July 18, 2011
2151-V5	August 17, 2010	December 10, 2012
2727-V4	March 16, 2011	January 26, 2012

On or about May 26, 2005, through June 10, 2005, and July 5, 2006, through July 21, 2006, inspections of the Respondent's facility were conducted to determine the degree of compliance with the Act and the Air Quality Regulations.

While the Department's investigation is not yet complete, the following violations were noted during the course of the inspections and subsequent file reviews conducted on December 6, 2010, December 7, 2010, January 3, 2011, and February 11, 2011:

- A. In correspondence dated February 23, 2004, the Respondent reported an unauthorized discharge occurred at the facility which began on February 13, 2004, and ended on February 17, 2004. According to the Respondent, an automatic switching valve did not operate properly and remained in the open position. According to the Respondent, the following pollutants were released from an emission point which is not permitted:

<b>Pollutant</b>	<b>Amount Released (lbs)</b>
Ethylene	14,235
Methane	16,617
Carbon Monoxide (CO)	18,351
Propylene	992
Butene	11,085
Other Flammable Gases	4,799

Each incident of emitting unpermitted pollutants from an unpermitted source is a violation of LAC 33:III.501.C.2, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2). This incident is also a violation of LAC 33:III.905.A.

- B. In correspondence dated June 8, 2004, the Respondent reported an unauthorized discharge occurred at the facility on June 1, 2004. According to the Respondent, the recycle gas release was preventable and was not a permitted emission source. The following pollutants were released during this incident:

<b>Pollutant</b>	<b>Amount Released (lbs)</b>
Ethylene oxide	0.589
Methane	6,757.5
Ethane	45.99
Ethylene	5,926.8

Each incident of emission of unpermitted pollutants from an unpermitted source is a violation of LAC 33:III.501.C.2 and La. R.S. 30:2057(A)(1) and 30:2057(A)(2). This incident is also a violation of LAC 33:III.905.A.

- C. In correspondence dated June 24, 2004, the Respondent discovered valve 550639 on V-S2996 to be in an open-ended condition. This is a violation of 40 CFR 60.482-6(a), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- D. In correspondence dated June 24, 2004, the Respondent reported the first attempt to repair a closed vent system leak at the yoke extension cover for KS-2142CW was 2 days late. Additionally, valve 520107 was found to be leaking on March 2, 2004, and did not receive its first repair attempt until 28 days later. Each incident of the Respondent's failure to conduct the first attempt at repair within the required timeframe is a violation of 40 CFR 60.482-10(g)(1), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- E. In correspondence dated June 24, 2004, the Respondent reported non-startup, shutdown, malfunction (non-SSM) bypasses of control devices. According to the Respondent, this occurred on January 13, 2004, and February 9, 2004. Each incident of non-SSM bypasses of control devices is a violation of 40 CFR 60.662, which language has

been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.905.A, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

- F. In correspondence dated September 10, 2004, the Respondent reported an unauthorized discharge that occurred on September 5, 2004. According to the Respondent, the point of origin for the release was not a permitted source. A unit process technician found a leak near a bleed valve on the unit's resid gas compressor. According to the Respondent, the release was discovered at 17:30 and lasted five minutes. The following pollutants were released during this incident:

<b>Pollutant</b>	<b>Amount Released (lbs)</b>
Carbon Dioxide	38.0
Methane	107.7
Ethane	1.3
Ethylene	157.1

Each incident of releasing unpermitted pollutants into the atmosphere from an unpermitted source is a violation of LAC 33:III.501.C.2, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2). This release is also a violation of LAC 33:III.905.A.

- G. In correspondence dated September 15, 2004, the Respondent reported an unauthorized discharge occurred at the facility on September 9, 2004. According to the Respondent, after routine maintenance in the M Unit, a leak was discovered from a loose fitting on a transmitter line. The amount of ethylene oxide released was estimated to be 29.6 pounds. This release is a violation of LAC 33:III.905.A, Title V Permit No. 3001-V0, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- H. The Respondent's Title V 1<sup>st</sup> Semiannual Monitoring Report dated September 28, 2004, reported a newly installed valve on V-S2804 was found in an open-ended condition in May 2004. Prior to the new valve being installed, another valve had been used which had also been in an open-ended condition. This is a violation of 40 CFR 60.482-6(a), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- I. The Respondent's Title V 1<sup>st</sup> Semiannual Monitoring Report dated September 28, 2004, reported a valve on a second VOC service drain on S2804 was found to be in open-ended condition in May 2004. This is a violation of 40 CFR 60.482-6(a), which language has been

adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

- J. The Respondent's Title V 1<sup>st</sup> Semiannual Monitoring Report dated September 28, 2004, reported two drain valves on V-S2804 were in VOC service but as of May 2004 had not received Method 21 monitoring. This is a violation of 40 CFR 60.482-7, which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- K. The Respondent's Title V 1<sup>st</sup> Semiannual Monitoring Report dated September 28, 2004, reported the VOC service drain valve on V-S2884 was found in an open-ended condition in May 2004. This is a violation of 40 CFR 60.482-6(a), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- L. In correspondence dated November 2, 2004, and December 1, 2004, the Respondent reported that on October 21, 2004, the internal floating roof (IFR) for Source 37D-92 (T-B977) had a three inch accumulation of liquid on top. According to the Respondent, VOC emissions were estimated to be 3.28 pounds per hour (lbs/hr), assuming a complete IFR failure. The Respondent also stated that the "dish-type" IFR appears to be an inadequate design for this tank service. This exceeds the maximum hourly permit limit of 0.16 lbs/hr VOC. The Respondent reported the exceedances as follows: exceeded by 3.12 lbs/hr for one day and by 0.2 lb/hr for 28 days. This is a violation of 40 CFR 60.112b(a)(1)(i), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.2103.C, Title V Permit No. 2727-V0, LAC 33:III.501.C.4, and La. R.S. 30:257(A)(2). Each incident of emissions in excess of the maximum hourly permit limit for VOCs is a violation of Title V Permit No. 2727-V0, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- M. In correspondence dated December 13, 2004, the Respondent reported two process streams were found to be single valved, thus in an open-ended condition. This is a violation of 40 CFR 60.482-6(a), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.2122.C.2, Title V Permit No. 2057-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- N. In correspondence dated January 28, 2005, the Respondent reported the IFR on T-S2991 (Source 30-86) was not resting on the liquid surface and that there was approximately four feet of liquid on top of

it. This was detected on January 24, 2005. The Respondent's investigation revealed the emergency manway cover was off the manway opening. According to the Respondent, VOC emissions were estimated to be 0.34 lbs/hr which exceeds the maximum hourly permit limit of 0.146 lbs/hr VOC for this source. According to correspondence from the Respondent dated February 1, 2011, the total emissions released above permit limits for this event were 2.4 pounds per day, and the duration of the event was 11 days. This incident is a violation of 40 CFR 60.112b(a)(1)(i), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.2103.C, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, LAC 33:III.905.A, and La. R.S. 30:2057(A)(2). Each incident of exceeding the VOC permit limit is a violation of Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).

- O. The Respondent's Title V Annual Compliance Certification dated March 31, 2005, reported one difficult to monitor valve in light liquid service in the EO1 unit did not receive its annual monitoring for the years 2000 through 2003. Each incident of failing to conduct monitoring is a violation of 40 CFR 63.168(i)(3), which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2057-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- P. The Respondent's Title V Annual Compliance Certification dated March 31, 2005, reported nitrogen oxide emissions from Source 720-99 exceeded the 5 ppmv BACT concentration limit on December 30, 2004. According to the Respondent, this occurred during four 3-hour averaging periods. Each incident of exceeding the concentration limit is a violation of Specific Condition No. 1 of Title V Permit No. 2729-V0, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- Q. In correspondence dated May 9, 2005, and June 29, 2005, the Respondent reported liquid on top of the IFR for T-S2991 (Source 30-86). This was detected on May 4, 2005. According to the Respondent, the VOC emissions were estimated to be 1.35 lbs/hr which exceeds the maximum hourly permit limit of 0.146 lbs/hr VOC for this source. According to correspondence dated June 29, 2005, the total emissions above the permit limit for this event were 1,117 lbs of VOCs, and emissions ceased on June 8, 2005. This incident is a violation of 40 CFR 60.112b(a)(1)(i), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.2103.C, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, LAC 33:III.905.A, and La. R.S. 30:2057(A)(2). Each incident of exceeding

the VOC permit limit is a violation of Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).

- R. In correspondence dated April 20, 2005, May 10, 2005, November 1, 2005, and Annual Compliance Certification dated March 30, 2006, the Respondent reported that on April 13, 2005, it was discovered that the EO2 Oxidizer was operating below its minimum average firebox temperature of 1506 degrees F. According to the Respondent, 29 unexcused excursions occurred during the time period of September 19, 2004, through March 18, 2005, and 25 unexcused excursions for the time period of March 19, 2005, through September 18, 2005. This is associated with EO-2 Oxidizer (Source 97-00). This is a violation of 40 CFR 63.113, which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2057-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- S. In correspondence dated May 3, 2005, the Respondent reported an unauthorized discharge occurred at the facility on April 28, 2005. According to the Respondent, the source of the release was a leaking tube(s) from heat exchanger, E-S142B, which is not a permitted emission source. The release began on April 28, 2005, at 0820 hours and ended at 2310 hours. According to the Respondent, approximately 135 pounds of ethylene was released. The release of unpermitted pollutants from an unpermitted source is a violation of LAC 33:III.501.C.2, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2). This incident is also a violation of LAC 33:III.905.A.
- T. In correspondence dated June 29, 2005, the Respondent reported valve 531041 on the accumulator column C-S2520 (Process Unit AOID2) was found to be in open-ended condition. This is a violation of 40 CFR 60.482-6(a), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- U. The Respondent's correspondence dated June 29, 2005, states, "On 1/18/05, sampling of heat content of the flare gases to flare A-AU701 was performed. The results indicated that the heat content of gases being combusted was below 300 BTU/scf." According to the Respondent, the test results showed BTU/scf values of 241, 201, and 227 for all three test canister samples. According to the Respondent, the cause of this was a nitrogen hose being inadvertently lined up to the vent scrubber. The Respondent's failure to maintain the heat content of gases at or above the required BTU/scf value is a violation of 40 CFR 60.18(c)(3)(ii), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, 40 CFR 60.112b(a)(3)(ii),

which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2489-V0, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

- V. According to the Respondent's correspondence dated June 29, 2005, the Respondent discovered turnaround equipment was operated without variance approval. The variance issued on March 14, 2005, authorized the operation of five (5) temporary 425 hp diesel powered engines and the following emissions: 1.18 tons of PM<sub>10</sub>, 1.10 tons of SO<sub>2</sub>, 7.20 tons of NO<sub>x</sub>, 3.58 tons of CO, and 1.34 tons of VOCs. Each incident of the unauthorized operation of each emission source is a violation of LAC 33:III.501.C.2, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- W. In correspondence dated August 24, 2005, the Respondent reported two valves in the SHOP2 process unit were on delay of repair and rebuilt during the process unit shutdown in May 2005. According to the Respondent, these valves were not repaired by the end of the shutdown per 40 CFR 60.482-9(a)&(e). This is a violation of 40 CFR 60.482-9(a), 40 CFR 60.482-9(e), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- X. In correspondence dated August 24, 2005, the Respondent reported three valves in the EO-2 process unit were repaired past the date required by 40 CFR 63.168(f)(1). This is a violation of 40 CFR 63.168(f)(1), which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2057-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2). In addition, the above-mentioned late repairs should have been reported to the Department by June 30, 2005. The Respondent's failure to report this to the Department within the required timeframe is a violation of Title V Permit No. 2057-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- Y. In correspondence dated August 24, 2005, the Respondent reported one valve in the EOEG3 process unit was found leaking on March 31, 2005. A first attempt at repair was done within five days, and a second attempt was done in 12 days after which monitoring was not conducted. This attempt at repair was later proved to be successful through Method 21 monitoring 18 days after the leak was detected. The definition of 'repaired' in 40 CFR 63 Subpart H requires confirmation by Method 21. The Respondent's failure to repair the leak as required is a violation of 40 CFR 63.168(f)(1), which language has been adopted as a Louisiana regulation in LAC



33:III.5122, Title V Permit No. 2185-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

- Z. In correspondence dated August 24, 2005, the Respondent reported three open-ended lines in OHAP and heavy-liquid service for the EO-2 process unit were discovered in April 2005 and fixed during the July 2005 process unit turnaround. This is a violation of 40 CFR 63.167(a)(1), which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2057-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- AA. In correspondence dated February 2, 2006, the Respondent reported a compliance test conducted on December 8, 2005, showed a CO emission rate of 0.435 lbs/hr for EPN 13A-71. This exceeds the CO permit limit of 0.307 lbs/hr. This is a violation of Title V Permit No. 2136-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- BB. In correspondence dated December 12, 2005, the Respondent reported Flare A-AU701 experienced a period of pilot flame outage during the time period of September 22 through September 26, 2005. This is a violation of 40 CFR 60.112b(a)(3)(ii), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, 40 CFR 60.18(c)(2), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, 40 CFR 60.18(e), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2489-V0, LAC 33:III.501.C.4, LAC 33:III.905.A, and La. R.S. 30:2057(A)(2).
- CC. In correspondence dated March 24, 2006, the Respondent reported an unauthorized discharge occurred at the facility on March 18, 2006. According to the Respondent, the released quantity includes one point of origin that is a permitted source (EPN 41-91) and two points of origin that are not permitted sources. According to the Respondent, approximately 1% of gas volume exited the permitted source. According to the Respondent, the duration of the release was 67 minutes, and 348 pounds of ethylene oxide were released. The release of unpermitted emissions from an unpermitted source is a violation of LAC 33:III.501.C.2, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2). This incident is also a violation LAC 33:III.905.A.
- DD. In correspondence dated March 28, 2006, the Respondent reported the discovery that an IFR on T-S2991 was not resting on the liquid surface and that there was approximately nine feet of liquid on top of it. This was detected on March 25, 2006. According to the

Respondent, VOC emissions were estimated to be 0.45 lbs/hr which exceeds the maximum hourly permit limit of 0.14 lbs/hr. According to correspondence from the Respondent dated February 1, 2011, the total emissions above the permit limit for this event were 7.44 pounds of VOCs per day, and the duration of the event was eight (8) days. This incident is a violation of 40 CFR 60.112b(a)(1)(i), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.2103.C, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, LAC 33:III.905.A, and La. R.S. 30:2057(A)(2). Each incident of emissions in excess of permit limits is a violation of Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).

- EE. In correspondence dated June 26, 2006, the Respondent reported weekly visual inspections were not conducted during the calendar weeks of April 9, 2006, and April 16, 2006. Each incident of the Respondent's failure to conduct weekly visual inspections of the pumps in service for fugitive leaks in the PDO-1 Unit is a violation of 40 CFR 63.163(b)(3), which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2489-V0, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- FF. In correspondence dated July 14, 2006, the Respondent reported an unauthorized discharge occurred at the facility on July 10, 2006, and lasted 45 minutes. According to the Respondent, the origin of the release, a pressure relief valve, is not a permitted source. Approximately 2,860 pounds of ethylene were released. The release of unpermitted pollutants is violation of LAC 33:III.501.C.2, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- GG. In the Respondent's Title V 1<sup>st</sup> Semiannual Monitoring Report dated September 21, 2006, the Respondent reported failing to conduct weekly visual pump inspections during the week of June 5, 2006. This is associated with EPN 1-97. Each incident of the Respondent's failure to conduct weekly visual pump inspections is a violation of 40 CFR 63.163(b)(3), which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2489-V0, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- HH. The Respondent's correspondence dated October 24, 2006, states, "Boiler F-U202 failed to operate within its daily compliance operating window for 2 days (July 3<sup>rd</sup> & 4<sup>th</sup>) by exceeding its average stack excess oxygen limit range by 0.5%." Each incident of Boiler F-U202 failing to operate within its daily compliance operating

condition is a violation of LAC 33:III.2201 and La. R.S. 30:2057(A)(2).

- II. The Respondent's correspondence dated October 24, 2006, states, "Process Heater F-S801 exceeded its 30-day rolling average stack excess oxygen operating limit of 4.0% by 0.1% for 7 days (July 14, 16, 17, 18, 19, 20, & 21)." Each incident of Process Heater F-S801 exceeding the 30-day rolling average stack excess oxygen operating limit is a violation of LAC 33:III.2201 and La. R.S. 30:2057(A)(2).
  
- JJ. In correspondence dated November 24, 2006, the Respondent reported an unauthorized release was discovered at the facility on November 19, 2006. According to the report, the release was secured 38 minutes later. According to the Respondent, the origin of the release, a block valve on the pump suction, was not a permitted source. According to the report, 31.1 pounds of ethylene oxide were released. The release of unpermitted pollutants from an unpermitted source is a violation of LAC 33:III.501.C.2, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2). This incident is also a violation of LAC 33:III.905.A.
  
- KK. In correspondence dated December 20, 2006, the Respondent reported the discovery of several drain lines in EO2 and EG2 were single valved and thus operating as open-ended lines. Each incident of an open-ended line and/or valve is a violation of 40 CFR 60.482-6(a), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.2122.C.2, Title V Permit No. 2057-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
  
- LL. In correspondence dated December 20, 2006, the Respondent reported Synthesis gas received via pipeline was purged through the K-2 Vent Stack resulting in an exceedance of the maximum lb/hr permit limit for CO. The duration of the incident was 1.25 hours and occurred on September 15, 2006. This is a violation of Title V Permit No. 2151-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
  
- MM. In the Respondent's Title V Annual Compliance Certification dated March 30, 2007, the Respondent reported an unauthorized discharge occurred at the facility on November 14, 2006. According to the Respondent, excess Synthesis gas was routed to the plant flare resulting in an increase in pressure in the system causing the back-up control valve to open. According to the Respondent, 9,897 lbs of Syngas and methane were released to the atmosphere. According to the Respondent's correspondence dated February 1, 2007, the

maximum lb/hr limit was exceeded. The methane lb/hr permit limit in Title V Permit No. 2151-V2 is 13.538. The exceedance of a permit limit is a violation of Title V Permit No. 2151-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2). Also, this incident is a violation of LAC 33:III.905.A.

- NN. In correspondence dated April 13, 2007, the Respondent reported daily monitoring and recordkeeping of the water flow rate to the EO Effluent Pretreatment Reactor Feed Tank Scrubber did not occur during the time period of October 27, 2006, through November 20, 2006. Each failure to monitor and record the water flow rate is a violation of Title V Permit No. 2057-V3, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- OO. In correspondence dated June 22, 2007, the Respondent reported the EO3 CO<sub>2</sub> vent (EPN 12-92) exceeded its maximum 0.99 lb/hr limit for ethylene oxide on the following dates: January 14, 18, 21, 22, and 23, 2007. The Respondent reported the ethylene oxide exceedances as 2.311 lbs. Each incident of exceeding a permit limit is a violation of Title V Permit No. 2185-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- PP. In correspondence dated June 22, 2007, the Respondent reported component number A3-01134 in SHOP3 was not repaired within 15 days and was not eligible for delay of repair. This is a violation of 40 CFR 60.482-7, which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V1, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- QQ. In correspondence dated September 24, 2007, the Respondent reported a valve repair was performed on a valve (Component Tag ID 90716) on the delay of repair status. According to the Respondent, the component was placed on the DOR list as of May 18, 2005. The Respondent's correspondence states, "The leak detection contractor was asked to perform follow-up monitoring of all DOR valves to determine status. Although the component was still found to be leaking, the unit was able to make a successful repair, thus negating the allowance for DOR status." The Respondent's failure to make every reasonable effort to repair a leaking component within 15 days is a violation of LAC 33:III.2122.C.3, Title V Permit No. 2669-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- RR. In correspondence dated September 24, 2007, the Respondent reported a valve, component tag ID 530886, was not repaired within the regulatory time frame allowed. According to the Respondent, the

valve was repaired on June 12, 2007, but should have been repaired on May 23, 2007. This is a violation of 40 CFR 60.482-7, which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

- SS. In correspondence dated September 24, 2007, the Respondent reported the discovery of open-ended lines in two locations in the EO/EG-3 unit. According to the Respondent, a plug was missing from a bleed valve on component ID E3-0355, and the Brine Storage Vessel Sample Port was found in an open-ended condition. Each incident of an open-ended condition is a violation of 40 CFR 63.167(a), which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2185-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- TT. In correspondence dated December 3, 2007, the Respondent reported liquid accumulation on part of the internal floating roof, and the roof was tilted and not resting completely on the liquid surface. This incident is associated with tank T-S3948 (EPN 367-99). This is a violation of 40 CFR 60.112b(a)(1)(i), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.905, and La. R.S. 30:2057(A)(2).
- UU. In correspondence dated December 5, 2007, the Respondent reported components were not repaired within the regulatory time frame. The Respondent's correspondence states, "Component Tag ID's 130484, 130509, & 130559 had been placed on the DOR list. Following discussions with the leak repair contractor, the unit was able to make a successful repair on three of the valves without a unit shutdown, thus negating the allowance for DOR status." The Respondent's failure to make every reasonable effort to repair a leaking component within 15 days is a violation of LAC 33:III.2122.C.3, Title V Permit No. 2669-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- VV. In correspondence dated March 19, 2008, the Respondent reported weekly fugitive inspections were not performed as required in four instances in the AOID-1 unit. Each failure to perform weekly inspections is a violation of LAC 33:III.2122, Title V Permit No. 2669-V2, LAC 33:III.501.C.4, and La R.S. 30:2057(A)(2).
- WW. The Respondent's correspondence dated March 19, 2008, states, "A review of AO-2 pump inspection records by LDAR Coordinator revealed that pump inspections were delinquent on three occasions." Each incident is a violation of 40 CFR 60.482-2(a)(2), which

language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

- XX. In correspondence dated March 19, 2008, the Respondent reported visible emissions at various intervals for more than six minutes in several 60 minute intervals from Syltherm Furance F-S2801. This occurred between 13:00 on October 17, 2007, until 19:00 on October 18, 2007. Each incident of visible emissions for more than six minutes in a 60 minute period is a violation of LAC 33:III.1101.B, LAC 33:III.1311.C, Title V Permit No. 2669-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- YY. According to the Respondent's correspondence dated March 19, 2008, a review of AO/ID2 inspection records showed that a weekly visible emission check was not performed for Syltherm Furance F-S2801 during the week of August 24, 2007. This is a violation of Specific Requirement No. 439 of Title V Permit No. 2669-V2, LAC 33:III.501C.4, and La. R.S. 30:2057(A)(2).
- ZZ. In the Title V Annual Compliance Certification dated March 24, 2008, the Respondent reported a flame outage on the Comfac Flare A-AU701 (EPN 36A-97). According to the Respondent, this was detected on February 3, 2007, and lasted 28 minutes. This is a violation of 40 CFR 60.18(c)(2), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2489-V0, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- AAA. In correspondence dated September 9, 2008, and November 24, 2008, the Respondent reported that an unauthorized discharge was discovered on September 3, 2008. According to the Respondent, the leak originated from a level transmitter believed to have been damaged as a result of Hurricane Gustav on September 1, 2008. When the leak was discovered on September 3, 2008, the line was found to be de-pressured and no longer emitting. According to the Respondent, the estimated amount released is 12,960 pounds of ethylene oxide. According to the Respondent, the origin of the release is not a permitted source. The release of unpermitted pollutants from an unpermitted source is a violation of LAC 33:III.501.C.2, La. R.S. 30:2057(A)(1) and 30:2057(A)(2). This incident is also a violation of LAC 33:III.905.A.
- BBB. In correspondence dated September 15, 2008, the Respondent reported one open ended-line discovered on the glycol bleed flasher loop in EG2 unit. This is a violation of LAC 33:III.2122, 40 CFR

63.167(a), which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2057-V4, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

- CCC. In correspondence dated September 25, 2008, the Respondent reported an unauthorized discharge was discovered at the facility on September 24, 2008, at 0320 hours and secured at 0755 hours. According to the Respondent, the leak originated from the flanged connections of a heat exchanger assembly located in the EOE-2 unit. According to the Respondent, the release occurred during a cold start-up after Hurricane Gustav. According to the Respondent, 63 pounds of ethylene oxide were released, and the origin of the release is not a permitted source. The release of unpermitted pollutants from an unpermitted source is a violation of LAC 33:III.501.C.2, La. R.S. 30:2057(A)(1) and 30:2057(A)(2). This incident is also a violation of LAC 33:III.905.A.
- DDD. According to correspondence dated February 11, 2009, the plant flare system (EPN 03-73) experienced visible emissions during the onset of Hurricane Gustav. This occurred on September 1, 2008, at approximately 2:00 p.m. until approximately 7:30 p.m. This is a violation of 40 CFR 60.18(c)(1), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V3, LAC 33:III.501.C.4, La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- EEE. In correspondence dated March 17, 2009, the Respondent reported the Elevated Flare (EPN 03a-73) experienced a 27 minute period of apparent pilot flame outage on December 20, 2008. This is a violation of 40 CFR 60.112b(a)(3)(ii), 40 CFR 60.18(c)(2), 40 CFR 60.18(e), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V3, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- FFF. In the Respondent's Title V Annual Compliance Certification dated March 30, 2009, the Respondent reported annual VOC emissions from a fixed roof tank (Source 10H-73) were higher than permitted during the 2008 calendar year. According to correspondence from the Respondent dated February 1, 2011, the 2008 emissions were 23.6 lbs above the annual permit limit of 0.01 tpy. This is a violation of Title V Permit No. 2669-V3, LAC 33:III.501.C.4, La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- GGG. In correspondence dated April 6, 2009, the Respondent reported an unauthorized discharge occurred at the facility on March 31, 2009, at 8:55 a.m. and ended the same day at 9:51 a.m. According to the

Respondent, the root cause was piping failure on the KS110 ethylene compressor. According to the Respondent, approximately 717 pounds of ethylene were released. The release of unpermitted pollutants is a violation of LAC 33:III.501.C.2, La. R.S. 30:2057(A)(1) and 30:2057(A)(2).

- HHH. In correspondence dated August 20, 2009, the Respondent reported that the EOEG-3 Cooling Water Tower (CWT) had not been specifically included as an emission source in the current permit. According to the Respondent, the overall amount attributed to this emission source is less than five tons per year of PM<sub>10</sub> emissions. The Respondent's failure to submit a permit application prior to construction, reconstruction, or modification of the facility is a violation of LAC 33:III.501.C.1 and La. R.S. 30:2057(A)(2).
- III. In correspondence dated August 20, 2009, the Respondent reported that the EOEG-3 Cooling Water Tower (CWT) had not been specifically included as an emission source in the current permit. According to the Respondent, the overall amount attributed to this emission source is less than five tons per year of PM<sub>10</sub> emissions. The unauthorized operation of the emission source is a violation of LAC 33:III.501.C.2, La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- JJJ. In correspondence dated November 18, 2009, the Respondent reported an unauthorized discharge occurred on November 15, 2009. According to the Respondent, the relief valve on the ethylene supply line vented to the atmosphere for approximately 10 seconds resulting in 656 pounds of ethylene being released. The release of unpermitted pollutants is a violation of LAC 33:III.501.C.2, and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- KKK. In the Respondent's Title V Annual Compliance Certification dated March 22, 2010, the Respondent reported that loading manifold valves for certain loading arms which are in VOC service were found to be in open-ended condition. Each incident of an open-ended condition is a violation of LAC 33:III.2122.C.2, Title V Permit No. 2727-V2, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- LLL. In the Respondent's Title V Annual Compliance Certification dated March 22, 2010, the Respondent reported visible emissions coming from the Plant Flare System (EPN 03-73) for approximately nine (9) minutes on March 31, 2009. This is a violation of 40 CFR 60.18(c)(1), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2669-V5, LAC 33:III.501.C.4, La. R.S. 30:2057(A)(1) and 30:2057(A)(2).



- MMM. In the Respondent's Title V Annual Compliance Certification dated March 22, 2010, the Respondent reported NO<sub>x</sub> emissions from Source 720-99 (EQT553 - Cogeneration Unit #1) exceeded the 5 ppmv concentration limit. According to the Respondent, the 5 ppmv BACT limit was exceeded for fourteen 3-hour averaging periods by an average of 1.2 ppm. Each incident of exceeding the concentration limit is a violation of Specific Requirement No. 10 of Title V Permit No. 2729-V1, LAC 33:III.501.C.4, La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- NNN. In the Respondent's Title V 1<sup>st</sup> Semiannual Monitoring Report dated September 21, 2010, the Respondent reported the discovery of nine open-ended lines in the AOID unit. Each open-ended line is a violation of LAC 33:III.2122, 40 CFR 63.167(a), which language has been adopted as a Louisiana regulation in LAC 33:III.5122, Title V Permit No. 2669-V5, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).
- OOO. In the Respondent's Title V 1<sup>st</sup> Semiannual Monitoring Report dated September 21, 2010, and correspondence dated September 16, 2010, the Respondent reported the late submittal of a Compliance Test Report. The compliance test is associated with F-U205 Boiler NO<sub>x</sub> Analyzer. The Respondent's failure to submit the report within the required timeframe is a violation of 40 CFR 60.8(a), 40 CFR 60.49b(b), which language has been adopted as a Louisiana regulation in LAC 33:III.3003, Title V Permit No. 2136-V5, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

The following deviations, although not included in the foregoing enforcement action, are included within the scope of the settlement herein.

- A. In correspondence dated April 4, 2011, the Respondent reported a release of ethylene from a reflux water cooler (E-S142) was discovered on March 1, 2011. It was identified as having started on January 25, 2011, at approximately 2215 hours and ended on March 6, 2011, at 0730 hours. According to the Respondent, 14,528 lbs of ethylene were released and this incident did not involve a permitted source. The release of unpermitted emissions is a violation of LAC 33:III.501.C.2 and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).
- B. In correspondence dated April 4, 2011, the Respondent reported a release of ethylene from a reflux water cooler (E-S142) was discovered on March 1, 2011. It was identified as having started on

January 25, 2011, at approximately 2215 hours and ended on March 6, 2011, at 0730 hours. According to the Respondent, 14,528 lbs of ethylene were released and this incident did not involve a permitted source. Verbal notification for this incident was provided on March 29, 2011. The Respondent's failure to provide verbal notification within the required timeframe is a violation of LAC 33:I.3917 and La. R.S. 30:2057(A)(2).

C. In correspondence dated April 4, 2011, the Respondent reported a release of ethylene from a reflux water cooler (E-S142) was discovered on March 1, 2011. It was identified as having started on January 25, 2011, at approximately 2215 hours and ended on March 6, 2011, at 0730 hours. According to the Respondent, 14,528 lbs of ethylene were released and this incident did not involve a permitted source. Verbal notification for this incident was provided on March 29, 2011. The Respondent's failure to provide written notification within the required timeframe is a violation of LAC 33:I.3925 and La. R.S. 30:2057(A)(2).

D. In correspondence dated March 22, 2011, the Respondent reported an unauthorized discharge occurred at the facility on March 16, 2011. According to the Respondent, 1,260 lbs of methane and 1,783 lbs of ethylene were released from Process vent K-EO605. According to the Respondent, this vent is normally routed to the thermal oxidizer and there are no permitted limits for this source. Each incident of the release of unpermitted emissions is a violation of LAC 33:III.501.C.2 and La. R.S. 30:2057(A)(1) and 30:2057(A)(2).

E. The Department received correspondence from the Respondent's representative on February 23, 2012, which stated 117 open ended lines were discovered in one of the units at the facility. Each incident of an open-ended line or valve is a violation of LAC 33:III.2122 and/or 40 CFR 60 Subpart VV, which language has been adopted as a Louisiana regulation in LAC 33:III.3003, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

### III

In response to the Consolidated Compliance Order & Notice of Potential Penalty, 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 SEVENTY NINE THOUSAND SEVEN HUNDRED SEVENTY-FIVE AND NO/100 DOLLARS (\$79,775.00), of which Nine Thousand Twenty-Five and 21/100 Dollars (\$9,025.21) 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 La. R. S. 30:2025(E) of the Act.

## IX

The Respondent has caused a public notice advertisement to be placed in the official journal of the parish governing authority in Ascension 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.

## X

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).

XI

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

XII

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: Roxan R. Kraft  
(Signature)

Roxan R. Kraft  
(Printed)

TITLE: General Manager

THUS DONE AND SIGNED in duplicate original before me this 17 day of October, 20 13, at Geismar, LA.

Gina B. McBride  
NOTARY PUBLIC (ID # 68850)

**Gina B. McBride**  
Notary Public No 68850  
My Commission is for Life

(stamped or printed)

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

Peggy M. Hatch, Secretary

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

THUS DONE AND SIGNED in duplicate original before me this 20<sup>th</sup> day of Feb, 20 14, at Baton Rouge, Louisiana.

Cheryl  
NOTARY PUBLIC (ID # 19181)

Perry Theriot  
(stamped or printed)

Approved: Cheryl  
Cheryl Sonnier Nolan, Assistant Secretary