



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL**

OFFICE OF THE  
SECRETARY

89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

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**NOTICE OF ADMINISTRATIVE PENALTY ASSESSMENT  
AND SECRETARY'S ORDER**

Pursuant to 7 Del. C. § 6005

**Order No. 2013-A-0053**

*PERSONALLY SERVED BY AN ENVIRONMENTAL  
PROTECTION OFFICER*

**Issued To:**

Formosa Plastics Corporation of Delaware  
Attn: Mr. Roger Boone, Plant Manager  
780 Schoolhouse Road  
Delaware City, DE 19706

**Registered Agent:**

Corporation Service Company  
2711 Centerville Road, Suite 400  
Wilmington, DE 19808

Dear Mr. Boone:

This is to notify Formosa Plastics Corporation of Delaware ("Respondent") that the Secretary of the Department of Natural Resources and Environmental Control ("Department") has found Respondent in violation of its permit and federal air quality regulations. Accordingly, the Department is issuing this Notice of Administrative Penalty Assessment pursuant to 7 Del. C. § 6005(b)(3).

***BACKGROUND***

Respondent owns and operates a facility located at 780 Schoolhouse Road in Delaware City, Delaware ("Facility"). At the Facility, Respondent produces polyvinyl chloride ("PVC") resin from vinyl chloride monomer ("VCM") and vinyl acetate monomer ("VAM"). VCM is a hazardous air pollutant ("HAP"). Respondent sells the resin it produces to companies for use in making various products such as containers, flooring and toys. Respondent's Facility includes two PVC Resin Production Plants with associated equipment, known as E2 PVC Resin Production Plant ("E2") and S2 PVC Resin Production Plant ("S2"). Operations at Respondent's Facility have the potential to emit numerous pollutants, including VCM, in quantities in excess of the major thresholds for New Castle County, thereby triggering 7 DE Admin. Code 1130,

*Delaware's Good Nature depends on you!*

Delaware's Title V State Operating Permit Program ("Regulation 1130" or "Title V") requirement and fees. The Department issued **Permit: AQM-003/00027-Renewal (R1)(Revision 4)** ("Title V Permit-R1") to Respondent with an effective date of July 10, 2009.

Incidents at the Facility in January, February and April of 2013 resulted in violations of its permit and federal regulations limiting VCM concentration in wastewater. In addition, a quarterly NESHAP report included an exceedance of its facility wide residual vinyl chloride monomer ("RVCM") limit in May 2013, and a records review during a June 4, 2013 inspection revealed a one day failure to take pressure drop readings across its baghouse. These violations are described in more detail below.

#### January 21, 2013

On January 21, 2013, an alarm sounding indicating the ambient air monitor detected VCM in the E2 wastewater stripping building in a concentration above 3 ppm. Personnel responding to the alarm found a nipple broken off of the wastewater stripping tank recycle line. The supervisor and operator isolated the recirculation line and shut off the pit pumps preventing the water from reaching the wastewater treatment plant. The exact concentration of VCM in the wastewater is unknown; however, the alarm does not trigger unless the concentration is above 3ppm. The wastewater was held in the process pit until VCM levels had been reduced to levels acceptable for release to the treatment plant (below 3 ppm).

#### February 25, 2013

On February 25, 2013, the DT360 wastewater stripping tank was sampled at approximately 7:30 am. The onsite QC lab analyzed the sample and determined that the VCM concentration was 0.56 ppm, below the permit limit of 3 ppm for the discharge of stripped wastewater. As part of an EPA Section 114 request, Respondent currently samples the stripped wastewater during discharge as well, taking samples at the beginning and midpoint of the batch discharge to accommodate the number of samples required by EPA. These samples were numbered 09-E2-A and 09-E2-B. Respondent sent these samples to an outside lab for analysis and conducted an additional VCM analysis in-house. When these samples were analyzed by the in-house lab the results were 18.15 ppm and 15.41 ppm of VCM respectively. On March 5, 2013, Respondent noticed that the results in the QC lab for batches 09-E2-A and 09-E2-B also showed results above the permit limit and initiated an investigation. Respondent contacted the Department by phone and was told to wait for results from the samples sent to an outside lab to verify the in-house results. Respondent received the results confirming the elevated levels from the outside lab on March 12, 2013. A root cause was never found, however Respondent has temporarily implemented a change in operating procedures requiring testing of a second sample to confirm the batch has a VCM level below 3 ppm prior to discharging the wastewater to the wastewater treatment plant.

#### April 14, 2013

On April 14, 2013, an operator in the S2 building noticed that the level in the ST302 seal water tank had dropped and that there was no flow to the seal water pump. The operator went to the area and found the drain line had snapped off of the slow vent compressor. The operator isolated the compressor and reported the incident to the shift supervisor. Untreated wastewater was released to the S2 process pit. This wastewater was held in the process pit until the VCM

levels reached a level below 3 ppm. Respondent believes that the drain line broke due to its own weight and vibration. In response to this incident all drain lines on vacuum pumps and compressors were inspected. As a result of this inspection, all of the drain lines have had support added, piping was changed to one with a thicker wall known as schedule 80 pipe, and where possible, lines were shortened. All of these changes were finalized by June 15, 2013.

May 10, 2013

The June 13, 2013 Quarterly NESHAP Report indicated that one exceedance of the daily average RVCN concentration of 1,250 ppm occurred for the E2 Plant with an average of 1,371 ppm. Respondent indicated that this was the result of a batch having an RVCN concentration of 4366 ppm due to the loss of vacuum on the reactor when the vacuum pumps tripped out.

May 22, 2013

During a June 4, 2013, inspection, the Department discovered that required pressure drop readings for the E2 Spray Dryer baghouses were not taken on May 22, 2013, due to issues with the dryer resulting in its operation in manual mode.

A Notice of Violation was issued to Respondent on May 16, 2013, for the January 21, 2013, and February 25, 2013, violations. A Notice of Violation was issued to Respondent on May 31, 2013, for the April 14, 2013, violation. A Notice of Violation was issued to Respondent on July 2, 2013, for the May 10 and May 22, 2013, violations.

***FINDINGS OF FACT***

1. VCM is a hazardous air pollutant pursuant to Delaware and federal law.
2. Operations at Respondent's Facility have the potential to emit pollutants, including the hazardous air pollutant VCM, in quantities that trigger Title V requirements and fees.
3. The Department issued **Permit: AQM-003/00027-Renewal (R1)** to Respondent with an effective date of July 10, 2009 ("Title V Permit-R1").
4. Respondent experienced incidents during January, February and May 2013, as described in the Background Section of this Order, that resulted in permit and federal regulation violations.
5. The Department issued Notices of Violation to Respondent for these incidents on May 16, 2013, May 31, 2013, and July 2, 2013.

***REGULATORY AND PERMIT REQUIREMENTS***

1. Forty C.F.R. § 61.65(b)(9) states:

*"Inprocess wastewater. Vinyl chloride emissions to the atmosphere from inprocess wastewater are to be reduced as follows:*

*(i) The concentration of vinyl chloride in each inprocess wastewater stream containing greater than 10 ppm vinyl chloride measured immediately as it leaves a piece of equipment and before being mixed with any other inprocess wastewater stream is to be reduced to no more than 10 ppm by weight before being mixed with any other inprocess wastewater stream which contains less than 10 ppm vinyl chloride; before being exposed to the atmosphere; before being discharged to a wastewater treatment process; or before being discharged untreated as a wastewater. This paragraph does apply to water which is used to displace vinyl chloride from equipment before it is opened to the atmosphere in accordance with §61.64(a)(2) or paragraph (b)(6) of this section, but does not apply to water which is used to wash out equipment after the equipment has already been opened to the atmosphere in accordance with §61.64(a)(2) or paragraph (b)(6) of this section.*

*(ii) Any vinyl chloride removed from the inprocess wastewater in accordance with paragraph (b)(9)(i) of this section is to be ducted through a control system from which the concentration of vinyl chloride in the exhaust gases does not exceed 10 ppm (average for 3-hour period); or equivalent as provided in §61.66.”*

2. Condition 3-Table 1(c)(5)(vi) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** states:

*“The owner or operator shall monitor the pressure drop across the baghouse compartment every four hours while the dryer is operating. If the pressure drop falls outside of the normal range (i.e. <1 inches H<sub>2</sub>O and > 12 inches H<sub>2</sub>O then the owner or operator shall take corrective action to restore the pressure drop to normal operating range. If the pressure drop cannot be restored to normal operating range within twenty-four (24) hours, the unit shall be shut down and the Department shall be notified.”*

3. Condition 3-Table 1(c)(7)(i) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** states:

*“Emission Standard: The owner or operator shall operate in-process wastewater stripping tanks for stripping in-process wastewater to a vinyl chloride limit of 3 ppm or less.”*

4. Condition 3-Table 1(d)(7)(i) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** states:

*“Emission Standard: The owner or operator shall operate in-process wastewater stripping tanks for stripping in-process wastewater to a vinyl chloride limit of 3 ppm or less.”*

5. Condition 3-Table 1(e)(1)(iii)(N)(1) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** states:

*“Inprocess Wastewater – In addition to the more stringent requirements in Condition 3 – Table 1(c) and Condition 3 – Table 1(d), vinyl chloride emissions to the atmosphere from inprocess wastewater are to be reduced as follows:*

*The concentration of vinyl chloride in each inprocess wastewater stream containing greater than 10 ppm vinyl chloride measured immediately as it leaves a piece of equipment and before being mixed with any other inprocess wastewater stream is to be reduce to no more than 10 ppm by weight before being mixed with any other inprocess wastewater stream which contains less than 10 ppm vinyl chloride; before being exposed to the atmosphere; before being discharged to a wastewater treatment process; or before being discharged untreated as a wastewater. This condition does apply to water which is used to displace vinyl chloride from equipment before it is opened to the atmosphere in accordance with Condition 3 – Table 1(e)(1)(ii)(A)(2) or Condition 3 – Table 1(e)(1)(iii)(K), but does not apply to water which is used to wash out equipment after the equipment has already been opened to the atmosphere in accordance with Condition 3 – Table 1(e)(1)(ii)(A)(2) or Condition 3 – Table 1(e)(1)(iii)(K).”*

6. Condition 3-Table 1(e)(2)(ii) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** states:

*“The facility wide residual vinyl chloride monomer (RVCM) average shall not exceed 1,250 parts per million on a daily average and 550 parts per million on a rolling twelve month weighted average.”*

### **CONCLUSION**

Based on the above, the Department has concluded that Respondent committed the following violations:

January 21, 2013

Respondent violated Condition 3 – Table 1(c)(7)(i) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** when inprocess wastewater with vinyl chloride levels greater than 3 ppm contacted the atmosphere on January 21, 2013, in the E2 wastewater stripping building. Though the exact level is unknown, it was at minimum, greater than 3 ppm since it triggered the ambient air monitor alarm.

February 25, 2013

Respondent violated Condition 3 – Table 1(c)(7)(i) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** when inprocess wastewater with vinyl chloride levels greater than the required 3 ppm contacted the atmosphere on February 25, 2013, when testing of two samples of stripped wastewater during discharge showed results of 18.15 ppm and 15.41 ppm.

Respondent violated 40 C.F.R. § 61.65(b)(9) and Condition 3 – Table 1(e)(1)(iii)(N)(1) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** when inprocess wastewater with

vinyl chloride levels greater than the required 10 ppm contacted the atmosphere on February 25, 2013, when testing of two samples of stripped wastewater during discharge showed results of 18.15 ppm and 15.41 ppm.

April 14, 2013

Respondent violated Condition 3 – Table 1(d)(7)(i) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** when untreated wastewater was released to the S2 process pit on April 14, 2013.

May 10, 2013

Respondent reported in its June 13, 2013 Quarterly NESHAP Report that it had violated Condition 3 – Table 1(e)(2)(ii) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** on May 10, 2013, when it exceeded the daily average RVC concentration limit of 1,250 ppm at its E2 Plant with an average of 1,371 ppm.

May 22, 2013

Respondent violated Condition 3 – Table 1(c)(5)(vi) of **Permit: AQM-003/00027-Renewal (R1) Revision (03)** on May 22, 2013, when it failed to take pressure drop readings for the E2 Spray Dryer.

### ***ASSESSMENT OF PENALTY***

Pursuant to the provisions of 7 *Del. C.* § 6005(b)(3), this is written notice to Respondent that on the basis of its findings, the Department is assessing Respondent an administrative penalty of \$23,460 for the violations identified in this Assessment and Order and costs according to 7 *Del. C.* § 6005(c). Respondent shall submit a check to the Department in the amount of \$23,460 within 30 days from the receipt of this Assessment and Order for the aforementioned penalty. The check shall be made payable to the “State of Delaware” and shall be directed to: Valerie S. Edge, Deputy Attorney General, Department of Justice, Environmental Unit, 102 W. Water Street-3<sup>rd</sup> Floor, Dover, Delaware, 19904. This penalty is being assessed for the specific violations identified herein, and other violations discovered during the relevant time periods are expressly excluded from the scope and application of this Administrative Penalty Assessment and Order.

### ***PUBLIC HEARING***

This Administrative Penalty Assessment and Order shall become effective and final unless the Department receives from Respondent, no later than 30 days from the receipt of this Notice, a written request for a public hearing on these matters as provided in 7 *Del. C.* § 6005(b)(3) and (c). In the event Respondent requests a hearing, the Department reserves the right to withdraw this Assessment and Order and take additional enforcement actions regarding these and other violations at Respondent’s facility, including but not limited to, the imposition of civil penalties and recovery of the Department’s costs and attorney’s fees. The Department does not otherwise intend to convene a public hearing on these matters, but reserves the right to do so at its discretion.

***PRE-PAYMENT***

Respondent may prepay the administrative penalty of \$23,460 and the Department's estimated costs in the amount of \$3,519 in the manner described in the attached waiver. By doing so, Respondent waives its right to a hearing and the opportunity to appeal or contest the Assessment which shall become a final Order.

If you have any questions, please contact Paul Foster at (302) 323-4542.

11/20/13  
Date

  
Collin P. O'Mara, Secretary

cc: Valerie S. Edge, Deputy Attorney General  
Ali Mirzakhali, P.E., Director  
Paul Foster, P.E., Program Manager  
Tammy Henry, Managing Engineer  
Amy Mann, Engineer  
Dawn Minor, Paralegal  
Jenny Bothell, Enforcement Coordinator  
Dover File

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## ***WAIVER OF STATUTORY RIGHT TO A HEARING***

**Formosa Plastics Corporation of Delaware** hereby waives its right to a hearing and its opportunity to appeal or contest this Assessment and Order and agree to the following:

1. **Formosa Plastics Corporation of Delaware** will pay the administrative penalty in the amount of \$23,460 by sending a check payable to the "State of Delaware" within 30 days of receipt of this Assessment and Order. The check shall be directed to Valerie S. Edge, Deputy Attorney General, Department of Justice, 102 W. Water Street-3<sup>rd</sup> Floor, Dover, DE 19904; and
2. **Formosa Plastics Corporation of Delaware** will reimburse the Department in the amount of \$3,519 which represents the Department's estimated costs. The reimbursement shall be paid within 30 days of receipt of this Assessment and Order. The check shall be made payable to the "State of Delaware" and be directed to Valerie S. Edge, Deputy Attorney General, Department of Justice, 102 W. Water Street-3<sup>rd</sup> Floor, Dover, DE 19904.

**Formosa Plastics Corporation of Delaware**

Date: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_