

Dale Turton MDEQ Air Compliance Inspector Air Quality Division 7953 Adobe Road Kalamazoo, Michigan 49009-5025

RE: Written Response to Violation Notice for SRN: P0087, Allegan County

Dear Mr. Turton,

This letter is to serve as response to the MDEQ Air Quality Division Violation Notice dated November 1, 2016. Below is a summary of findings from the October 18, 2016 Air Compliance Inspection performed at LG Chem Michigan.

1) FGDCBOILERS - the condition requires that natural gas usage shall be monitored recorded, and emissions are calculated for each boiler. Currently, the usage records and emissions calculations are only on a plant-wide basis. There are not separate gas meters for each unit.

<u>Corrective Actions</u> – Obtain three quotes as required for the purchase, installation and future annual inline natural gas totalizers for each of the permitted boilers.

Target Completion Date - December 15, 2016

2) EUNMP - Condition II.1 requires that the total NMP throughput shall not exceed 286 tons per year on a 12-month rolling average. Records show that the throughput has exceeded that level during the most recent periods.

<u>Corrective Action</u> – Began monthly calculations for throughput rather than usage to determine air permit limit for NMP tons across the solvent recovery process equipment. Note: There appears to be an inconsistency between permit limits and calculated value each month. Discussion with MDEQ Air Division Staff will be required to remedy this issue.

Target Completion Date - December 15, 2016

3) - Condition III.1 requires that an Operations and Maintenance Plan (Plan) be submitted for the dust collectors and carbon beds. The Plan has been submitted, but the Plan is not being followed as presented. The "Appendix A Example Preventative Maintenance Checklists" that were submitted as part of the Plan are not being used.



<u>Corrective Actions</u> – Preventative Maintenance Checklists have been resurrected, entered into the facility maintenance group's normal PM cycle and assigned to a technician responsible. In addition, an extensive inspection of all pollution control equipment will be performed by an outside contractor.

<u>Target Completion Date</u> – Inspections on all pollution control equipment is to be completed by November 30, 2016. Known discrepancies and those found as part of the inspection will be addressed as soon as possible.

4) - FGFACILIY - Conditions III.1 and III.2 require that a Plan be submitted for the dust collectors and carbon beds. The Plan has been submitted, but the Plan is not being followed as presented. The "Appendix A Example Preventative Maintenance Checklists" that were submitted as part of the Plan are not being used.

<u>Corrective Actions</u> – Preventative Maintenance Checklists have been resurrected, entered into the facility maintenance group's normal PM cycle and assigned to a technician responsible. In addition, an extensive inspection of all pollution control equipment will be performed by an outside contractor.

<u>Target Completion Date</u> – Inspections on all pollution control equipment is to be completed by November 30, 2016. Known discrepancies and those found as part of the inspection will be addressed as soon as possible.

4) FGELECTRODEMIX - Conditions IV.2 and VI.2 require that ELECTRODEMIXD dust collector have an installed and operating differential pressure device. The gauge was found to disconnected and not being monitored.

<u>Corrective Actions</u> – Differential pressure sensors and gauges will be installed, evaluated, calibrated by an outside contractor and set to the proper ranges called by the OEM.

Target Completion Date - November 30, 2016

5) Some of the differential pressure gauges being used for FGSLITTING and FGNOTCHING were operating with readings outside the manufacturer's recommended ranges. Furthermore, these gauges may not have been calibrated recently, bringing into question the accuracy of the gauge readings. Please perform the calibrations and re-evaluate the operating ranges.

<u>Corrective Actions</u> – Differential pressure sensors and gauges will be installed, evaluated, calibrated by an outside contractor and set to the proper ranges called by the OEM.



Target Completion Date – November 30, 2016

6) The connection between the FGNOTCHING dust collector hoppers and the receiving bags were observed to be leaking fugitive dust allowing some re-entrainment to the atmosphere. Also, collector #1 was observed to have a bad seal on the access door allowing some fugitive dust leakage. Please address these issues to assure that there are no fugitive dust emissions.

<u>Corrective Actions</u> – A sealable attachment point bags is being designed to eliminate fugitive dust emissions between bags and bag holder.

Target Completion Date - December 31, 2016

7) The EUELECTROLYTE area also includes two vacuum pump rooms that are used to evacuate residual amounts of solvent from the battery pouches. The emissions from the rooms are not addressed in the permit. The operation should be evaluated to determine if the emissions are already accounted for in the emission limits, and also if the levels and concentration of the volatile organic compounds in the room exhaust warrants the use of control equipment.

<u>Corrective Actions</u> – The EUELECTROLYTE to be evaluated in order to determine if the vacuum pump process should be added to the current Air Permit as a separate emission unit or if the emission is already being counted at the primary emission unit EUELECTROLYTE.

Target Completion Date – November 30, 2016

Please feel free to contact me if you have any questions at 269-804-9226 or by email at <u>rseverns@lgchem.com</u>

Sincerely,

Ralph Severns

Ralph Severns Senior Environmental Specialist LG Chem Michigan Inc