



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
KALAMAZOO DISTRICT OFFICE



C. HEIDI GREYER
DIRECTOR

September 17, 2018

Mr. Ralph Severns
LG Chem Michigan Inc.
875 East 48th Street
Holland, Michigan 49423

SRN: P0087, Allegan County

Dear Mr. Severns:

VIOLATION NOTICE

On August 23, 2018, the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of LG Chem Michigan Inc. (Facility), located at 875 East 48th Street, Holland, Michigan. The purpose of this inspection was to determine the Facility's compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the Air Pollution Control Rules; and the conditions of Permit to Install (PTI) No. 64-10A.

During the inspection, staff of the AQD observed the following:

Process Description	Rule/Permit Condition Violated	Comments
EUNMP	PTI No. 64-10A Special Condition VI.4	Facility is currently not keeping adequate records of the n-methyl-pyrrolidone (NMP) used in the solvent recovery system. The Facility is tracking the make-up NMP, not the NMP throughput on a monthly and annual basis. These records make it so that compliance with the material throughput limit cannot be determined.
EUNMP	PTI No. 64-10A Special Condition VI.3	The Facility is using emission factors and was unable to provide

		where the emission factors were derived. Facility should be able to provide evidence where the emission factor being used for emission calculations are derived. The Facility is using an emission factor based on operating time. This may not be derived from AP-42, manufacturer's, or test data specified in Special Condition VI.3
EUELECTROLYTE	Rule 201	The Facility installed an additional electrolyte line in April 2018. The additional electrolyte line is not permitted under PTI No. 64-10A.
Charging and aging cells	Rule 201	After the battery pouches are filled with electrolyte in the EUELECTROLYTE process, the Facility then charges and ages the batteries. The Facility uses vacuum pumps for pulling excess gases out of the pouches. The small amount of residual solvent in the pouches that is released into the rooms are then emitted outside via fans.
EUELECTROLYTE	PTI No. 64-10A Special Condition V.1	The Facility recorded a breakthrough reading over 20% on May 30, 2018. The Facility operated without fresh carbon until July 6, 2018.

EUELECTROLYTE	PTI No. 64-10A Special Condition VI.2.c	The Facility is not including volatile organic compounds (VOC) emission from isopropyl alcohol and ink VOC used in this emission unit. The isopropyl alcohol usage is close to one ton per month preventing an accurate determination of compliance with the 8.5 tons per year VOC limit.
FGELECTRODEMIX	Rule 201	The Facility is currently installing an additional electrode mix line. The line is currently not operational, but equipment is being installed, which is not permitted under PTI No. 64-10A.
FGELECTRODEMIX	PTI No. 64-10A Special Condition V.1	The Facility recorded a breakthrough reading over 20% on May 30, 2018. The Facility operated without fresh carbon until June 15, 2018.
FGELECTRODEMIX	PTI No. 64-10A Special Condition IV.1-2	The Facility has not calibrated the differential pressure gauges reading the pressure drop across the filter in the dust collector.
FGSLITTING	Rule 201	The Facility installed EUSLITTING3 in July 2018. This is beyond the 18 months from the issuance of PTI 64-10A. The Facility needed to reapply for an PTI to install

		equipment that was not installed during the 18 month period after the issuance of PTI 64-10A.
FGSLITTING	PTI No. 64-10A Special Condition IV.1-2	The Facility has not calibrated the differential pressure gauges reading the pressure drop across the filter in the dust collector.
FGNOTCHING	Rule 201	The Facility installed EUNOTCHING5 in July 2018. This is beyond the 18 months from the issuance of PTI 64-10A. The Facility needed to reapply for a PTI to install equipment that was not installed during the 18 month period after the issuance of PTI 64-10A.
FGNOTCHING	PTI No. 64-10A Special Condition IV.1-2	The Facility has not calibrated the differential pressure gauges reading the pressure drop across the filter in the dust collector. During the inspection, one dust collector was reading an error, but the notching line was still operating. Records showed that the Facility was operating notching lines emitting to dust collector 6, which operated while the dust collector was out of typical operating range for about three weeks.

FGDCBOILERS	PTI No. 64-10A Special Condition VII.1	The Facility has not provided written notification of construction and operation of the HHWBBOILERS. The initial notification was to include when operation started, the design heat input capacity of the affected facility, and identification of fuels to be combusted, if the applicable a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels, and the annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.
FGEMERGENCYGENS	PTI No. 64-10A Special Condition VI.2.c-d	The Facility was not able to show documentation that the engines for the emergency generators meet the emission limits in PTI No. 64-10A. The Facility is required to show documentation that the engines meet emission limits in Special Conditions I.1-4. The documentation is required to be either a certification from the manufacturer or be

		demonstrated with an initial performance test within one year of engine installation that the emission limits are met.
FGFACILITY	PTI No. 64-10A Special Condition I.1	The Facility is reporting emissions that are over the 125 pounds per year of manganese emission limit. The Facility went over the limit in February of 2016. The Facility reported 163 pounds per year during the 12 month rolling time period. The Facility has been increasing emissions since that February. The Facility is averaging around 477 pounds per year for the 12 month rolling during the 2018 year.
FGFACILITY	PTI No. 64-10A Special Condition VI.2	The Facility is only calculating manganese, nickel, and cobalt emissions from FGELECTRODEMIX and EUNMP. The Facility calculates potential emissions of manganese, nickel, and cobalt for EUELECTROLYTE, FGSLITTING, and FGNOTCHING. The Facility should be including these emissions as part of the emissions in FGFACILITY. The Facility should include any of the exempt

		equipment that emits these pollutants as apart of the emissions as well.
Facility	Rule 210 and Rule 211(g)(x)	The Facility uses feedstock material that has an individual concentration greater than 1.0 percent by weight of manganese and greater than 0.1 percent by weight of nickel. This subjects the Facility to 40 Code of Federal Regulations (CFR) Part 63, Subpart VVVVV. The Facility is required to apply and obtain a Title V permit. The Facility should have applied for the Title V permit by December 21, 2013.

This process is also subject to the federal National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources. These standards are found in 40 CFR Part 63, Subpart VVVVV.

During this inspection, the Facility was unable to produce accurate material throughput and emission records.

This is a violation of the recordkeeping and emission limitations specified in Special Condition VI.2, VI.3, and VI.4 of PTI No. 64-10A.

The conditions of PTI No. 64-10A require emission records for all emission units apart of the flexible group to be calculated and the total throughput for NMP used each month and 12 month rolling time period.

During this inspection, it was noted that the Facility had installed and commenced operation of unpermitted equipment at this Facility. The AQD staff advised the Facility on August 23, 2018, that this is a violation of Rule 201 of the administrative rules promulgated under Act 451.

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A program for compliance may include a completed PTI application for EUELECTROLYTE, FGNOTCHING, FGSLITTING, FGELECTRODEMIX, and charging and aging of cells processes equipment. An application form is available by request, or at the following website: www.michigan.gov/deqair (in the shaded box on the upper right-hand side of the page).

Be advised that Rule 201 requires that a permit be obtained prior to installation, construction, operation, reconstruction, relocation, or alteration of any process or process equipment which may be a source of an air contaminant.

Under the State of Michigan's Air Pollution Control law and the federal Clean Air Act, a Renewable Operating Permit (ROP) program has been developed and implemented in Michigan. This program requires major sources of air emissions to obtain a facility wide air use permit. This permit serves as a mechanism for consolidating and clarifying all air pollution control requirements which apply to the source. Rule 210(5) of the administrative rules promulgated under Part 55, Air Pollution Control, of Act 451, requires a stationary source that is not a major source under R 336.1211(1)(a), but is otherwise subject to the requirements of this rule under R 336.1211(1)(g)(x) to submit an application to the DEQ, AQD, not more than 12 months after a stationary source commences operation as a source subject to 40 CFR Part 63, Subpart VVVVV, as defined by Rule 210(5).

Based on the commencement of operation of the Facility prior to December 21, 2012, an application for an ROP should have been submitted to the AQD by December 21, 2013. To date, the AQD has not received this application. This constitutes a violation of Rule 210(1) that requires that a source not operate any emission units at a source required to obtain a ROP unless a timely and administratively complete application has been received by the DEQ. Because of the failure to submit a timely and administratively complete application in accordance with the requirements of Rule 210(5), this Facility has failed to obtain an application shield. Please submit a complete application within 60 days from the date of this letter.

Please initiate actions necessary to correct the cited violations and submit a written response to this Violation Notice by October 8, 2018 (which coincides with 21 calendar days from the date of this letter). The written response should include: the dates the violations occurred; an explanation of the causes and duration of the violations; whether the violations are ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violations and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

Please submit the written response to the DEQ, AQD, 7953 Adobe Road, Kalamazoo, Michigan 49009; and submit a copy to Ms. Jenine Camilleri, Enforcement Unit Supervisor at the DEQ, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

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If the Facility believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violations cited above and for the cooperation that was extended to me during my inspection of the Facility. If you have any questions regarding the violations or the actions necessary to bring this Facility into compliance, please contact me at the telephone number listed below.

Sincerely,



Cody Yazzie
Environmental Engineer
Air Quality Division
269-567-3554

CY:CF

Enclosure

cc: Ms. Mary Ann Dolehanty, DEQ
Mr. Craig Fitzner, DEQ
Mr. Christopher Ethridge, DEQ
Ms. Jenine Camilleri, DEQ
Ms. Mary Douglas, DEQ