

EES Coke Battery, LLC

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March 11, 2016

Ms. Katie Koster
Air Quality Division, MDEQ
Cadillac Place
3058 West Grand Boulevard
Suite 2-300
Detroit, MI 48202

Re: Response to February 22, 2016 Violation Notice

Dear Ms. Koster,

EES Coke Battery, LLC (EES Coke) is in receipt of a Violation Notice (VN) issued by the Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD). The VN is dated February 22, 2016 and alleges violations of permit limits for emissions of sulfur dioxide as reported by EES Coke in its excess emissions report for the fourth quarter of 2015.

The VN requests this written response include the dates the excess emissions occurred; an explanation of their causes and duration; whether the excess emissions are ongoing; a summary of corrective actions taken or those proposed to be taken; dates by which such actions were, or will be taken; and steps to prevent a reoccurrence. In response, EES Coke has included two attachments to this written response that address these requests.

In short, excess emissions began on October 24, 2015 soon after completing the CEMS work required under the January 2015 Consent Order. Adjustments to combustion began immediately and the excess emissions ceased two weeks later (November 9, 2016) and have not reoccurred.

Please contact me at (313) 216-2535 if you have questions regarding this submittal.

Sincerely,

A handwritten signature in black ink that appears to read "M. Krehmar".

M. Krehmar
Plant Manager
EES Coke Battery, LLC

Enclosures

CC: Fadi Mourad – DTEE
Todd Richards - DTEES
Stephen Zervas – DTEES

4th Quarter 2015

Excess Emissions Summary: SO2 lb/3-hr block average

Date	Limit (lb)	Observed Emissions (lb)	Cause of Excess Emissions	Corrective Actions
October 24 , 15:00	544.6	552.4	Monitored emissions were running close to the limit (in the range 520-540 lb/hr) when a slight increase in ppm (from around 400 up to 426) occurred that put us over the permit limit. A 25 ppm increase in concentration is within the normal variability of observed SO2 concentrations (i.e., it is not unusual). During this time period, measured stack exhaust flow remained level ranging from 130.6 to 132.2 kscfm	Following the RATA after relocating the CERMS to comply with the January 2015 Consent Order, stack flow jumped by approximately 11%. The high bias correction factor was changed based on the RATA from 0.656 to 0.731 – an 11.4% increase. This pushed monitored SO2 mass emission rates to very near the permit limit. EES began adjusting its combustion process right away. However, this adjustment process is a slow, trial and error process. After an adjustment is made, we have to wait a day to observe its impact before making a second adjustment. These adjustments were made over the first 10 days following the RATA. Following October 28/29, no further excess 3-hour SO2 emissions occurred
October 26, 21:00	544.6	545.0	Monitored emissions were running close to the limit (above 530 lb/hr) when a slight increase in ppm (from around 417 up to 428) occurred that put us over the permit limit. A 10 or 11 ppm increase in concentration is within the normal variability of observed SO2 concentrations (i.e., it is not unusual). During this time period, measured stack exhaust flow remained level ranging from 128 to 131 kscfm	
October 28, 03:00	544.6	555.0	Operator error made during combustion adjustments post CERMS relocation and RATA. Changes moved combustion in the wrong direction which increased emissions instead of decreasing emissions. Stack flows increased on this date to the mid-130's from the mid-120's (kscfm). Stack flows returned to the mid-120's the following day.	
October 28, 09:00	544.6	561.3		
October 28, 12:00	544.6	569.1		
October 28, 15:00	544.6	568.2		
October 28, 18:00	544.6	564.8		
October 29, 00:00	544.6	545.3		
November 8, 09:00	544.6	550.7	Hydraulic fluid failure in the Askania Valve caused loss of control for half of underfire combustion air. Stack flows on this date varied up and down from the low-100's to the mid-130's. Prior to this date stack flows were stable in the mid-120's. Stack flows returned to the mid-120's on November 9.	Repairs made and normal operations resumed on November 9. SOPs and Preventive Maintenance are revised as a result.
November 9, 0:00	544.6	553.8		

4th Quarter 2015

Excess Emissions Summary: SO2 lb/1,000 SCF COG Underfire

Date	Limit (lb/kscf)	Observed Emissions (lb/kscf)	Cause of Excess Emissions	Corrective Actions
October 24 , 13:00	0.702	0.714	Monitored emissions were running close to the limit (in the range 0.63-0.68 lb/kscfm) when a slight increase in ppm (from around 400 up to 426) occurred that put us over the permit limit. A 25 ppm increase in concentration is within the normal variability of observed SO2 concentrations (i.e., it is not unusual). During this time period, measured stack exhaust flow remained level ranging from 130.6 to 132.2 kscfm	Following the RATA after relocating the CERMS to comply with the January 2015 Consent Order, stack flow jumped by approximately 11%. The high bias correction factor was changed based on the RATA from 0.656 to 0.731 – an 11.4% increase. This pushed monitored SO2 mass emission rates to very near the permit limit. EES began adjusting its combustion process right away. However, this adjustment process is a slow, trial and error process. After an adjustment is made, we have to wait a day to observe its impact before making a second adjustment. These adjustments were made over the first 10 days following the RATA. Following November 8, no further excess lb/kscfm emissions occurred
October 24 , 14:00	0.702	0.704		
October 26 , 18:00	0.702	0.713		
October 28 , 01:00	0.702	0.713	Operator error made during combustion adjustments post CERMS relocation and RATA. Changes moved combustion in the wrong direction which increased emissions instead of decreasing emissions. Stack flows increased on this date to the mid-130's from the mid-120's (kscfm). Stack flows returned to the mid-120's the following day.	Battery combustion was re-adjusted and returned to stability the next day. SOPs are revised as a result.
October 28 , 07:00	0.702	0.715		
October 28 , 09:00	0.702	0.710		
October 28 , 10:00	0.702	0.727		
October 28 , 11:00	0.702	0.721		
October 28 , 12:00	0.702	0.704		
October 28 , 13:00	0.702	0.722		
October 28 , 14:00	0.702	0.727		
October 28 , 15:00	0.702	0.727		
October 28 , 16:00	0.702	0.703		
October 28 , 17:00	0.702	0.703		
November 03, 18:00	0.702	0.716	Maintenance was required to replace one of the reversing cylinders. This required a 7-hour cessation of production. For 3 of these 7 hours fuel was shut off to the ovens (i.e., no underfiring occurred). The COG generated during this time became lean (i.e., of low Btu content) as many of the ovens became fully, or near fully coked. Under typical operation, there is an even distribution of ovens from newly charged to fully coked. After the outage, this distribution had been shifted towards ovens being more fully coked. When production restarted, this distribution shifted toward ovens being newly charged - during which time, COG generation is greatest. This slug of COG temporarily generated excess SO2 emissions in terms of lb/kscfm. Over the first coking cycle after restarting production, the normal distribution/balance was restored.	Over the first coking cycle after restarting production, the normal distribution/balance was restored.
November 03, 19:00	0.702	0.799		
November 03, 20:00	0.702	0.732		
November 03, 21:00	0.702	0.723		
November 08, 08:00	0.702	0.705	Hydraulic fluid failure in the Askania Valve caused loss of control for half of underfire combustion air. Stack flows on this date varied up and down from the low-100's to the mid-130's. Prior to this date stack flows were stable in the mid-120's. Stack flows returned to the mid-120's on November 9.	Repairs made and normal operations resumed on November 9. SOPs and Preventive Maintenance are revised as a result.