

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION

**FCE Summary Report**

<b>Facility :</b> MUSKEGON DEVELOPMENT--HEADQUARTERS-- Sour Zone CPF	<b>SRN :</b> N0924
<b>Location :</b> SE SE Section 29, T21N, R3W	<b>District :</b> Gaylord
	<b>County :</b> ROSCOMMON
<b>City :</b> HOUGHTON LAKE	<b>State:</b> MI <b>Zip Code :</b> 48629 <b>Compliance Status :</b> Compliance
<b>Source Class :</b> MAJOR	<b>Staff :</b> Sharon LeBlanc
<b>FCE Begin Date :</b> 11/14/2017	<b>FCE Completion Date :</b> 11/14/2018
<b>Comments :</b> FCE inspection for the 2019 Fiscal Year.	

**List of Partial Compliance Evaluations :**

Activity Date	Activity Type	Compliance Status	Comments
11/14/2018	Scheduled Inspection	Compliance	unannounced, scheduled site inspection for major source, fiscal year 2019. sgl
11/05/2018	ROP Monthly	Compliance	<p>Muskegon Development Sour Zone Tank Battery - Monthly H2S Emission Report for September 2018.</p> <p>Note 546 MCF/month metered gas was reported for month of Sept. 2018, down from the 712.17 MCF/month metered gas reported for August 2018.</p> <p>Max Mass flow rate for SO2 was 163.0 lbs/24 hour period. Which is well below 690.72 lb/day that is allowed per the 28.78 lb/hour SO2 allowed by limit.</p> <p>Last H2S Test was conducted 09/03/2018 and reported H2S content of 40,000 ppm. H2S content reported since Feb. 2018 has ranged from 40,000 ppm to 45,000 ppm.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/28/2018	ROP Monthly	Compliance	<p>Monthly H2S Emission Report for August 2018 for Muskegon Development Sour Zone Tank Battery -</p> <p>Note 712.17 MCF/month metered gas reported for August 2018. Max Mass flow rate for SO2 was 266.9 lbs/24 hour period. Which is well below 690.72 lb/day that is allowed per the 28.78 lb/hour SO2 allowed by limit. Last H2S Test was conducted 08/18/2018 and reported H2S content of 45,000 ppm. The concentration reflects an increase from the 40,000 ppm reported for the June 2018, but is consistent with the levels reported for Feb through May 2018 and July 2018 analysis.</p>
09/18/2018	ROP Semi 1 Cert	Compliance	No deviations reported for facility for first half of 2018 calendar year.sgl
09/05/2018	ROP Monthly	Compliance	<p>Monthly H2S Emission Report for July 2018 for Muskegon Development Sour Zone Tank Battery -</p> <p>Note 261.41 MCF/month metered gas, Last H2S Test was conducted 07/11/2018 and reported H2S content of 45,000 ppm. The concentration reflects an increase from the 40,000 ppm reported for the previous month, but is consistent with the levels reported for Feb through May 2018 analysis.</p> <p>1054.18 lb H2S/Month and 1981.87 lb SO2/Month were reported. SO2 lb/24 hour ranged from 0.00 - 203.6 lbs, and would be well below the 28.78 lbs/hour based on 24-hour average.</p> <p>The 12 month rolling SO2 total was reported to be 10.39 tons and reflects the low for the period of February through July 2018. The highest being 15.16 ton SO2 12-month rolling total reported in Feb 2018.</p>
08/02/2018	Telephone Notes	Unknown	Consultant for Co. called with questions regarding proposed permit changes and ROP Renewal Activities. sgl

Activity Date	Activity Type	Compliance Status	Comments
07/30/2018	ROP Monthly	Compliance	<p>Monthly H2S Emission Report for June 2018 for Muskegon Development Sour Zone Tank Battery -</p> <p>Note 49.17 MCF/month metered gas, Last H2S Test was conducted 7/3/2018 and reported H2S content of 40,000 ppm. The concentration is below the 45,000 ppm reported for Feb through May 2018 analysis.</p> <p>176.26 lb H2S/Month and 331.36 lb SO2/Month were reported. SO2 lb/24 hour ranged from 0.00 - 110.6 lbs, and would be well below the 28.78 lbs/hour based on 24-hour average.</p> <p>The 12 month rolling SO2 total was reported to be 11.14 tons and reflects the low for the period of February through June 2018. The highest being 15.16 ton SO2 12-month rolling total reported in Feb 2018.</p>
07/02/2018	ROP Monthly	Compliance	<p>May 2018 H2S Emissions report for Muskegon Development Sour Zone Tank Battery -</p> <p>Note 59.63 MCF/month metered gas, Last H2S Test was conducted 5/1/2018 and reported H2S content of 45,000 ppm. The concentration is consistent with that reported for Feb through May 2018 analysis.</p> <p>240.7 lb H2S/Month and 452.08 lb SO2/Month were reported. SO2 lb/24 hour ranged from 0.00 - 58.1 lbs, and would be well below the 28.78 lbs/hour based on 24-hour average.</p> <p>The 12 month rolling SO2 total was reported to be 13.20 tons and reflects the low for the period of February through May 2018. The highest being 15.16 ton SO2 12-month rolling total reported in Feb 2018.</p>

Activity Date	Activity Type	Compliance Status	Comments
06/08/2018	ROP Monthly	Compliance	<p>April 2018 H2S Emissions report for Muskegon Development Sour zone Tank Battery -</p> <p>Note 111.09 MCF/month metered gas, Last H2S Test was conducted 4/3/2018 and reported H2S content of 45,000 ppm. The concentration is consistent with that reported for Feb and March 2018 analysis.</p> <p>447.99 lb H2S/Month and 842.22 lb SO2/Month. SO2 lb/24 hour ranged from 0.00 - 63.8 lbs, and would be below the 28.78 lbs/hour based on 24-hour average. The 12 month rolling SO2 total was reported to be 14.65 tons, down from 15.16 ton rolling total reported in Feb 2018 and slightly above the 14.56 tons from previous month.</p>
05/23/2018	ROP Monthly	Compliance	<p>March 2018 H2S Emissions report for Muskegon Development Sour zone Tank Battery -</p> <p>Note 87.26 MCF/month metered gas, Last H2S Test was conducted 3/5/2018 and reported H2S content of 45,000 ppm. The concentration is consistent with that reported for Feb 2018 analysis.</p> <p>351.89 lb H2S/Month and 661.56 lb SO2/Month. SO2 lb/24 hour ranged from 0.00 - 67.6 lbs, and would be below the 28.78 lbs/hour based on 24-hour average. 12 month rolling SO2 total was reported to be 14.56 tons, down from 15.16 ton rolling total from previous month.</p>
04/09/2018	ROP Monthly	Compliance	<p>Monthly H2S Emissions report for Muskegon Development Sour zone Tank Battery, reported for the month of February 2018 1142.8 lbs of SO2 for the month. The last H2S test date was 2/7/2018 and reported concentrations of 45K PPM. 15.16 Ton SO2 12-month rolling average.</p>

Activity Date	Activity Type	Compliance Status	Comments
03/07/2018	ROP Monthly	Compliance	<p>The January 2018 monthly report documented the last H2S test analysis conducted on January 16, 2018. H2S content of the gas stream was reported to be 50K PPM(an increase from the 40K PPM reported from the December 2017 sampling), and a metered gas flow of 264.13) MCF/MO (an increase from the 187.72 reported for December 2017).</p> <p>Total SO2 for month of January 2018 was 1.11 ton of SO2 for the month, and 16.38 ton of SO2 for the 12-month rolling total. Totals reported for December were 0.63 ton for the month, and 16.18 ton for the 12-month rolling.</p>
03/05/2018	MAERS	Compliance	2017 MAERS, See MAERS for any review comments- MAERS Cert form received- no additions or removals reported.
02/07/2018	ROP Annual Cert	Non Compliance	The 2017 Annual Compliance Certification reported only one deviation for the calendar year. This consisted of late submittal of the 2017 first semiannual compliance certification.sgl
02/07/2018	ROP SEMI 2 CERT	Compliance	2017 Second Semi-annual certification form reported compliance with all monitoring and recordkeeping requirements in the ROP.
02/07/2018	ROP Monthly	Compliance	The monthly report documented the last H2S test analysis conducted on December 13, 2017. H2S content of the gas stream was reported to be 40K PPM, and a metered gas flow of 187.72 MCF/MO. Total SO2 for month was 0.63 ton for the month, and 16.18 ton for the 12-month rolling total.

Activity Date	Activity Type	Compliance Status	Comments
12/28/2017	ROP Monthly	Compliance	<p>Submittal of November 2017 emissions report for facility - H2S content of gas stream was reported to have been sampled/tested 11/7/2017 and indicated a concentration of 45K ppm H2S. Down from the 50K ppm H2S reported for the October 2017 testing.. The 11/7/2017 value was used to determine mass flow rate for both H2S and SO2 in lb/24 hour period. Report includes SO2 emissions for each 24 hour day in month. as well as a monthly and 12 month rolling total.</p> <p>Daily totals for the month of November 2017 ranged from 7.0 to 113.6 lb SO2/24 hours. The previous month ranged from 70.7 to 126.2 lb SO2/24 hours.</p> <p>The reported daily SO2 emissions are below 690.72 lbs per day. The ROP SO2 limit is 28.78 pph based on a 24 hour average (28.78 pph x day/24 hours = 690.72 pounds SO2 per day).</p>
12/07/2017	ROP Monthly	Compliance	<p>Submittal of October 2017 emissions report for facility - H2S content of gas stream was reported to have been sampled/tested 10/13/2017 and indicated a concentration of 50K ppm H2S. The value was used to determine mass flow rate for both H2S and SO2 in lb/24 hour period. Report includes SO2 emissions for each 24 hour day in month. as well as a monthly and 12 month rolling total.</p> <p>Daily totals for the month ranged from 70.7 to 126.2 lb SO2/24 hours. The reported daily SO2 emissions are below 690.72 lbs per day. The ROP SO2 limit is 28.78 pph based on a 24 hour average (28.78 pph x day/24 hours = 690.72 pounds SO2 per day).</p>

Activity Date	Activity Type	Compliance Status	Comments
11/15/2017	ROP Monthly	Compliance	<p>AQD District Office received a copy of the September 2017 monthly H2S/SO2 Emission Report for Muskegon Development Company Sour Zone Unit Facility (N0924). The referenced document is required under ROP Condition VII.4.</p> <p>The monthly report documented daily metered gas flow rate to the flare (condition VI.1), H2S content in ppm determined on 9/6/17 (condition V.2), mass flow rate of H2S per 24 hour period (condition VI.2) and Mass flow Rate of SO2 per 24 hour period (condition VI.3).</p> <p>Daily emission rates reported for the period ranged from 68.2 - 136.4 lb SO2/24 hr period, and would indicate SO2 emissions well below the 28.78 lb/hour based on 24 hour average allowed under condition I.1.</p>

Name: Sharon LeBlanc Date: 11/31/2019 Supervisor: 