

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

FCE Summary Report

Facility : SMITHS CREEK LANDFILL	SRN : N6207
Location : 6779 SMITHS CREEK ROAD	District : Southeast Michigan
	County : SAINT CLAIR
City : SMITHS CREEK State: MI Zip Code : 48074	Compliance Status : Compliance
Source Class : MAJOR	Staff : Rebecca Loftus
FCE Begin Date : 8/7/2012	FCE Completion Date : 9/26/2014
Comments : See also SRN: P0262, Blue Water Renewables Landfill Gas to Energy Plant. These are one stationary source. A violation notice was issued to Blue Water Renewables (DTE Biomass) on September 23, 2014 for violating their permit limit for HAPs.	

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
09/26/2014	ROP Semi 1 Cert	Compliance	Semi-Annual, January 1, 2014 – June 30, 2014: For this reporting period, the facility reported twelve deviations. The deviations included Solar Flare data logger downtimes, wells which had oxygen, pressure, and/or temperature variance, and a malfunction of the emergency generator hour meter. In response, Smith's Creek requested alternate timelines/operating values for the wells, added a QA/QC check of well data recordings, replaced the data loggers, and repaired the emergency generator hour meter. Report reviewed by R. Loftus

Activity Date	Activity Type	Compliance Status	Comments
09/26/2014	NSPS (Part 60)	Compliance	<p>NSPS Semi-Annual Report, January 1, 2014 – June 30, 2014: During this reporting period the GCCS consisted of 83 landfill gas extraction wells/lines and 6 passive solar flares located in the closed section of the landfill. Of the 83 wells, 15 have been permanently decommissioned with appropriate notification to the MDEQ. Records of all decommissioned wells are properly documented. The facility properly documented instances in which wells oxygen exceedance, pressure exceedances, and/or the data was not recorded (no temperature variances were reported). Adjustments and additional readings were made to show compliance with the NSPS parameters. There were no instances during the reporting period in which all the control devices (Treatment System, flares, and a LF Gas to Energy Plant owned by Blue Water Renewables) were simultaneously not operating for longer than 1 hour in duration. There were no instances in which the gas collection system was down for more than 5 days. The 1st and 2nd quarterly scans showed no locations at the landfill that initially exceeded 500ppm methane. No new wells or collection system was added during this reporting period. Report reviewed by R. Loftus.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/26/2014	MACT (Part 63)	Compliance	SSM Semi-Annual Report, January 1, 2014 – June 30, 2014: For this reporting period there were 8 SSM events. Three of the events were the result of data logger malfunctions on solar flares #3 and #6. The remaining five events were the result of the data loggers being removed to download the data. Weekly inspections are conducted on the solar flares and additional inspections were conducted during the data logger down time to ensure the solar flares were properly operating. The actions taken in response to these events were consistent with the procedures listed in the SSM Plan and no revisions to the SSM Plan were made during this reporting period. Report reviewed by R. Loftus.
08/25/2014	Scheduled Inspection	Compliance	See also SRN: P0262, Blue Water Renewables Landfill Gas to Energy Plant. These are one stationary source.
03/25/2014	MAERS	Compliance	No changes were made to the submitted MAERS report. Emissions from the open flare decreased due to an decrease in throughput. Emissions from the solar vent flares increased due to an increase in throughput.

Activity Date	Activity Type	Compliance Status	Comments
03/19/2014	MACT (Part 63)	Compliance	<p>During the July 1, 2013, through December 31, 2013, reporting period, the facility reported 3 SSM events. These 3 events were associated with the malfunction of Solar Flare #4's datalogger. The date and time of the events is listed in the facility's SSM Report. The cause of the datalogger malfunctions is not known, but the datalogger was replaced after the third malfunction. Weekly inspections of the flare indicated that Solar Flare #4 was sparking during the times in which the datalogger malfunctions were noted. Therefore, the malfunction of the datalogger affected the collection of flare data, but not the functionality of the flare itself. Corrective actions were consistent with the facility's SSM Plan and no revisions to the plan were made during the reporting period.</p>

03/19/2014	ROP Annual Cert	Compliance	<p>The facility reported 10 deviations during the January 1, 2013, through June 30, 2013, reporting period. 7 of the deviations were for the loss of data from the facility's 6 solar vent flares as a result of malfunctions of varying lengths of time with the flare's dataloggers. Upon discovery, the dataloggers were restarted and appeared to be functioning normally after the restart. The date, duration, and corrective actions taken in response to each datalogger malfunction event is listed in the facility's semiannual SSM Report. The 8th deviation was for a 1 day, 2 day, and 5 day oxygen exceedances for SCLGW-02 and SCLGW-57s which were corrected via wellfield tuning. The 9th deviation was for pressure exceedances occurring in SCLGW-02 SCLGW-57s which were also remedied via wellfield tuning within 5 days of the initial exceedance. The final deviation was the failure to conduct 2nd Quarter surface methane monitoring by June 30, 2013, due to a scheduling error. The monitoring occurred in July and the facility updated their compliance management system to prevent a reoccurrence.</p> <p>The facility reported 3 deviations during the July 1, 2013, through December 31, 2013, reporting period. The first deviation was for the malfunction of Solar Flare #4's datalogger. Upon discovery of the malfunction, the datalogger was either restarted or replaced. A summary of the datalogger malfunctions are listed in Table 3 of the SSM Report for the reporting period. The second deviation was for the failure to operate SCLGW-33R, SCLGW-47R, SCLGW-52, SCLGW-65N, SCLGW-66N, and SCLGW-67N under negative pressures at all times. These wells were returned to compliance within 15 days of the initial exceedance through wellfield monitoring. The third deviation was for the failure to operate SCLGW-02, SCLGW-44, SCLGW-47, and SCLGW-55N under 5% oxygen levels at all</p>
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03/19/2014	ROP Annual Cert	Compliance	times. The wells either returned to compliance through wellfield tuning within 15 days of the initial exceedance or a decommissioning request was submitted to the DEQ.
03/19/2014	NSPS (Part 60)	Compliance	For the January 1, 2013, through December 31, 2013 reporting period, the facility properly reported instances in which positive pressures occurred at monitoring wells, the times at which the oxygen content within the monitoring wells was higher than 5%, the description and duration of all periods in which the control system was not operating as designed for longer than 1 hour in duration, a summary of all periods in which the control system was not operating for longer than 5 days in duration, a summary of any surface methane exceedances, the SSM events which occurred during the reporting period, and a summary of the installation of any new wells and/or collector system expansion (7 new wells were installed during the reporting period).

Activity Date	Activity Type	Compliance Status	Comments
03/19/2014	ROP SEMI 2 CERT	Compliance	<p>The facility reported 3 deviations during the July 1, 2013, through December 31, 2013, reporting period. The first deviation was for the malfunction of Solar Flare #4's datalogger. Upon discovery of the malfunction, the datalogger was either restarted or replaced. A summary of the datalogger malfunctions are listed in Table 3 of the SSM Report for the reporting period. The second deviation was for the failure to operate SCLGW-33R, SCLGW-47R, SCLGW-52, SCLGW-65N, SCLGW-66N, and SCLGW-67N under negative pressures at all times. These wells were returned to compliance within 15 days of the initial exceedance through wellfield monitoring. The third deviation was for the failure to operate SCLGW-02, SCLGW-44, SCLGW-47, and SCLGW-55N under 5% oxygen levels at all times. The wells either returned to compliance through wellfield tuning within 15 days of the initial exceedance or a decommissioning request was submitted to the DEQ.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/16/2013	ROP Semi 1 Cert	Compliance	<p>The facility reported 10 deviations during the January 1, 2013, through June 30, 2013, reporting period. 7 of the deviations were for the loss of data from the facility's 6 solar vent flares as a result of malfunctions of varying lengths of time with the flare's dataloggers. Upon discovery, the dataloggers were restarted and appeared to be functioning normally after the restart. The date, duration, and corrective actions taken in response to each datalogger malfunction event is listed in the facility's semiannual SSM Report. The 8th deviation was for a 1 day, 2 day, and 5 day oxygen exceedances for SCLGW-02 and SCLGW-57s which were corrected via wellfield tuning. The 9th deviation was for pressure exceedances occurring in SCLGW-02 SCLGW-57s which were also remedied via wellfield tuning within 5 days of the initial exceedance. The final deviation was the failure to conduct 2nd Quarter surface methane monitoring by June 30, 2013, due to a scheduling error. The monitoring occurred in July and the facility updated their compliance management system to prevent a reoccurrence.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/16/2013	NSPS (Part 60)	Compliance	<p>For the January 1, 2013, through June 30, 2013 reporting period, the facility properly reported instances in which positive pressures occurred at monitoring wells, the times at which the oxygen content within the monitoring wells was higher than 5%, the description and duration of all periods in which the control system was not operating as designed for longer than 1 hour in duration, a summary of all periods in which the control system was not operating for longer than 5 days in duration, a summary of any surface methane exceedances, the SSM events which occurred during the reporting period, and a summary of the installation of any new wells and/or collector system expansion (7 new wells were installed during the reporting period).</p>

Activity Date	Activity Type	Compliance Status	Comments
09/09/2013	MACT (Part 63)	Compliance	<p>During the January 1, 2013, through June 30, 2013, reporting period, the facility reported 27 SSM events. All of the SSM events were associated with malfunctions of the dataloggers for the solar flares. The facility has made modifications to the solar flares in an attempt to reduce the possibility of electromagnetic fields interfering with the dataloggers. The facility is still experiencing problems with the dataloggers, however, and is troubleshooting to find a solution. Most of the SSM events occurring with the dataloggers occurred in the winter of 2013. The facility believes that cold weather is contributing the problems with the dataloggers. The dataloggers will be monitored this winter to determine a strategy to weather proof/insulate them from the cold to minimize data loss. The facility is conducting weekly inspections of the solar flares to verify that they are sparking and functional. The weekly inspection reports indicated that the flares were operating during the periods in which the datalogger malfunctions occurred. Corrective actions were consistent with the site's SSM Plan and no revisions to the plan were made during the reporting period.</p>
04/17/2013	MAERS	Compliance	No changes were made to the submitted MAERS report.

Activity Date	Activity Type	Compliance Status	Comments
04/16/2013	NSPS (Part 60)	Compliance	<p>For the July 1, 2012, through December 31, 2012, reporting period, the facility properly reported instances in which positive pressures occurred at monitoring wells, the times at which the oxygen content within the monitoring wells was higher than 5%, the description and duration of all periods in which the control system was not operating as designed for longer than 1 hour in duration, a summary of all periods in which the control system was not operating for longer than 5 days in duration, a summary of any surface methane exceedances, the SSM events which occurred during the reporting period, and a summary of the installation of any new wells and/or collector system expansion.</p>

04/16/2013	ROP Annual Cert	Compliance	<p>The facility reported 8 deviations during the January 1, 2012, through June 30, 2012, reporting period. 6 of the deviations were for the loss of data from the facility's 6 solar vent flares as a result of malfunctions of varying lengths of time with the flare's dataloggers. This occurred when the facility replaced the preexisting dataloggers with a newer datalogger model. It was determined that an electromagnetic field from the flare's spark plugs and power source was interfering with the dataloggers and causing them to malfunction. The facility has since developed a configuration to isolate and shield the dataloggers from the the electromagnetic field which has enabled the dataloggers to operate as designed. AQD staff was made aware of this problem during his targeted inspection of the facility. The seventh deviation was for a 1 hour, 15 minute malfunction of the open flare which occurred on January 17, 2012, when a frozen valve prevented the 3" line servicing the open flare to open. This valve was thawed and the flare was restarted. The final deviation was for a 3 hour, 45 minute malfunction of the open flare due to an ignition transformer failure. A new ignition transformer was ordered and installed on March 29, 2009, since it was determined that the original ignition transformer was faulty.</p> <p>The facility reported 8 deviations during the July 1, 2012, through December 31, 2012, reporting period. 5 of the deviations were for the loss of data from the facility's 6 solar vent flares as a result of malfunctions of varying lengths of time with the flare's dataloggers. This occurred when the facility replaced the preexisting dataloggers with a newer datalogger model. It was determined that an electromagnetic field from the flare's spark plugs and power source was interfering with the dataloggers and causing them to malfunction. The facility has since</p>
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04/16/2013	ROP Annual Cert	Compliance	<p>developed a configuration to isolate and shield the dataloggers from the the electromagnetic field which has enabled the dataloggers to operate as designed. AQD staff was made aware of this problem during his targeted inspection of the facility. The 6th deviation was for a 3 day oxygen exceedance for SCLGW-39 which was remedied within 3 days of the initial exceedance. The 7th deviation was for a pressure exceedance occurring in SCLGW-44 which was immediately corrected upon discovery. The 8th deviation was for a pressure exceedance occurring in SCLGW-73 which was also immediately corrected upon discovery.</p>
04/16/2013	ROP SEMI 2 CERT	Compliance	<p>The facility reported 8 deviations during the July 1, 2012, through December 31, 2012, reporting period. 5 of the deviations were for the loss of data from the facility's 6 solar vent flares as a result of malfunctions of varying lengths of time with the flare's dataloggers. This occurred when the facility replaced the preexisting dataloggers with a newer datalogger model. It was determined that an electromagnetic field from the flare's spark plugs and power source was interfering with the dataloggers and causing them to malfunction. The facility has since developed a configuration to isolate and shield the dataloggers from the the electromagnetic field which has enabled the dataloggers to operate as designed. AQD staff was made aware of this problem during his targeted inspection of the facility. The 6th deviation was for a 3 day oxygen exceedance for SCLGW-39 which was remedied within 3 days of the initial exceedance. The 7th deviation was for a pressure exceedance occurring in SCLGW-44 which was immediately corrected upon discovery. The 8th deviation was for a pressure exceedance occurring in SCLGW-73 which was also immediately corrected upon discovery.</p>

Activity Date	Activity Type	Compliance Status	Comments
04/16/2013	MACT (Part 63)	Compliance	<p>During the July 1, 2012, through December 31, 2012, reporting period, the facility reported 12 SSM events. 11 of the SSM events were associated with malfunctions of the dataloggers for the solar flares. The facility has made modifications to the solar flares in an attempt to reduce the possibility of electromagnetic fields interfering with the dataloggers. The facility is still experiencing problems with the dataloggers, however, and troubleshooting to find a solution is ongoing. The final SSM event was a startup and shutdown of the facility's backup fuel skid made to accomodate a shutdown of Blue Water Renewables' fuel skid which was undergoing maintenance. Corrective actions were consistent with the site's SSM Plan and no revisions to the plan were made during the reporting period.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/21/2012	ROP Semi 1 Cert	Compliance	<p>The facility reported 8 deviations during the January 1, 2012, through June 30, 2012, reporting period. 6 of the deviations were for the loss of data from the facility's 6 solar vent flares as a result of malfunctions of varying lengths of time with the flare's dataloggers. This occurred when the facility replaced the preexisting dataloggers with a newer datalogger model. It was determined that an electromagnetic field from the flare's spark plugs and power source was interfering with the dataloggers and causing them to malfunction. The facility has since developed a configuration to isolate and shield the dataloggers from the the electromagnetic field which has enabled the dataloggers to operate as designed. AQD staff was made aware of this problem during his targeted inspection of the facility. The seventh deviation was for a 1 hour, 15 minute malfunction of the open flare which occurred on January 17, 2012, when a frozen valve prevented the 3" line servicing the open flare to open. This valve was thawed and the flare was restarted. The final deviation was for a 3 hour, 45 minute malfunction of the open flare due to an ignition transformer failure. A new ignition transformer was ordered and installed on March 29, 2009, since it was determined that the original ignition transformer was faulty.</p>

Activity Date	Activity Type	Compliance Status	Comments
09/21/2012	MACT (Part 63)	Compliance	<p>36 SSM events were reported during the January 1, 2012, through June 30, 2012, reporting period. 26 of the SSM events were the result of malfunctions of the solor vent flares' dataloggers. The remainining 10 SSM events were the result of maintance activities on Blue Water Renewables' skid, malfunctions of the open flare datalogger on Blue Water Renewables' skid, the failure of the ignition transformer for the open flare, and a frozen valve on the 3" line servicing the open flare. The date, duration, and description of the SSM events are detailed in a summary table of the SSM Report. Corrective actions were consistent with the site's SSM Plan. The SSM Plan was revised to reflect the malfunction of the ingnition transformer by adding a potential malfunction of the ignition system to Section 2.3 of the SSM Plan. .</p>
09/21/2012	NSPS (Part 60)	Compliance	<p>For the January 1, 2012, through June 30, 2012, reporting period, the facility properly reported instances in which positive pressures occurred at monitoring wells, the times at which the oxygen content within the monitoring wells was higher than 5%, the description and duration of all periods in which the control system was not operating as designed for longer than 1 hour in duration, a summary of all periods in which the control system was not operating for longer than 5 days in duration, a summary of any surface methane exceedances, the SSM events which occurred during the reporting period, and a summary of the installation of any new wells and/or collector system expansion.</p>

Name:

Rebecca J. [Signature]

Date:

9/26/14

Supervisor:

CTE