

Landfill Project Submittal Form

Instructions:

This form must be submitted to the Reserve and to the verifier in the first year of reporting prior to verification. In some cases, it may be necessary to update parts of the Project Submittal Form in subsequent years. **All information in this form will be made publicly available.**

These forms are to be used for reporting general Landfill Project information to the Climate Action Reserve in order to initiate the project listing process. All fields must be completed as thoroughly as possible. If the project in question is still in the planning/ development phase, all fields must be completed using best available data and estimates based on the proposed system design. Upon receipt of completed submittal forms, Reserve staff will perform a general eligibility screen (in accordance with the protocol version under which the project is submitted) based on the information provided. Project Developers can expect an Invoice for the \$500 project listing fee within 15 days of receipt of the completed forms, and a letter regarding the status of project within 15 days of the receipt of the project listing fee. If a project passes the eligibility screen, it will be officially "listed" with the Climate Action Reserve

This is an interactive Word form. Upon completion, please save this form as a PDF prior to returning it to the Reserve. This will lock your answers and protect the document from any further changes. All fields must be completed, even if the answer is also provided elsewhere; if a field is not applicable insert N/A in the space provided. The completed form must be saved and uploaded to your Climate Action Reserve account. Submit all questions regarding the project submittal process to: reserve@climatereserve.org.

Version 2.4
February 2009

Project Name: South Kent Landfill Gas to energy Project

Project Developer: Kent County Department Of Public Works

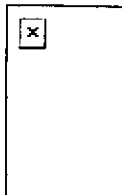
Facility Owner: Kent County

Technical Consultants: First Environment, Inc.

Other Parties with a Material Interest:None

Date of form completion: March 24, 2009

Form completed by (name): Ron Landis

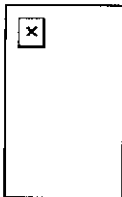


Section 1: General Site Information

1. Name of Landfill: South Kent Landfill
2. Approximate Latitude/Longitude of Landfill Project (degrees/minutes/seconds):
42/46/28.58 North Latitude 85/40/38.23 West Longitude
3. Address (including county):
300 100th Str SW Byron Center, Kent County, MI 49315
4. Owner of Landfill and owner contact information:
Kent County , Contact Ron Landis (616) 336-4370 email ron.landis@kentcountymi.gov
5. Type of landfill (sanitary, controlled, or open dump): type II Sanitary Landfill
6. Landfill size – designed area for waste placement (acre or hectare):
Design area is 93.44 Acres
7. Total waste in place (cubic meters or tons): as of 12/31/08--4,925,794 Cubic meters
8. Designed landfill capacity (cubic meters or tonnes): 10,698,655 cubic meters
9. Year landfill opened: 1981
10. Year landfill closed or estimated date of closure: estimated closure 2030
11. Average annual quantity of waste accepted at landfill (cubic meters or tonnes):
Approximately 223,900 cubic meters /year

12. Waste Characteristics Table

Waste Types	Estimated Percent of Waste Stream
Paper and Paperboard	35.7%



Glass	5.5%
Metals	7.9%
Plastics	11.1%
Rubber and Leather	3.5%
Textiles	3.6%
Wood	5.7%
Food Scraps	11.4%
Yard Trimmings	12.2%
Misc. Inorganic Wastes	3.4%
Other	

Explain basis of estimates (i.e. site specific information, regional or national studies, EPA, etc.):
Based on EPA information before recycling

Section 2: Project Eligibility and Monitoring

13. Initial verification period: July 12, 2008 through March 30, 2009 (Approx)

14. When did the project first commence operation, or when is the project expected to commence operation?

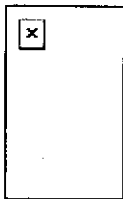
July 10, 2008

15. Have any vintage reduction tonnes from the project ever been registered with or claimed by another registry or program, or sold to another third party prior to registering with the Reserve?

no

If the answer is yes, you must complete and return a "Project Transfer" form.

16. Description of any regulatory framework for landfill methane capture and control (include an estimate of the date which the landfill will meet or exceed the 50 megagrams per year threshold of calculated NMOC emissions per NSPS/EG regulations and the type of testing that justifies the estimate (i.e. Tier 1 or Tier 2 NMOC emission rate estimates)):



Based on Dec 2006 Tier 2 testing this landfill will not reach the 50 megagram level for NMOC. Project 2011 is 21.59 Mg.

17. Description and citation of all local and state air and water quality, explosive gas, or other regulations pertinent to the landfill or project:

Michigan Department of Environmental Quality Renewable Operating permit number MI-ROP-N1234-2007

18. Is this project being implemented and maintained as the result of any law, statute, regulation, court order, or other preexisting legally binding mandate?

☐ Yes

☒ No

Comments (if any):

19. Has a detailed monitoring plan been developed for this project? If not, what date will a monitoring plan be in place?

Detailed monitoring plan has been developed

20. What Version or publication date of the Landfill Project Reporting Protocol is the project documentation based upon? Version 2.0 March 2008

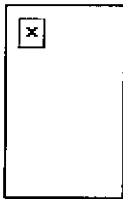
Section 3: Pre-project landfill gas control system information (fill out only if there was a landfill gas collection and/or control system in place that is separate from the Project system)

21. Type of pre-project landfill gas collection and control system in place, if any (e.g., open flare, enclosed flare, energy recovery etc.):

N/A

- i. If Landfill gas collection system is in place, is the system actively collecting or passively venting gas?

N/A



- ii. If flare or energy project is in place, what is the landfill gas flow rate (in scfm) and methane content?

N/A

- iii. Name of system designer, address and other contact information.

N/A

- iv. Supply a copy of the as built drawings for the pre-project system. Be sure to include in the diagram the location of all pre-project wells and/or other collection equipment and the location of all project-related wells and/or other collection equipment. (Attach as a separate PDF file titled: Pre-project LFG System Diagram)

22. When was this pre-project control system installed and operational?

N/A

23. Provide a summary of the permits obtained to build and operate this Landfill Gas Control System).

N/A

Section 4: Landfill gas utilization information for project activity

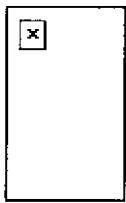
24. Landfill gas utilization (e.g., open-flared, enclosed flare, generation of electricity, use on-site as a boiler or furnace fuel, or sale to a third party):

Open-Flare

25. When was this combustion/LFG utilization system installed and operational, or when is it expected to be installed and operational?

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26. If designed to generate electricity:



- i. Type of engine-generator set (e.g., internal combustion engine, micro turbine or fuel cell with the name of the manufacturer, model, power output rating (kW or MJ) for biogas, and nominal voltage :

In the future there will be 3.2Mw of electric generated from the LFG. All of these credits are base don destruction by open-flare

- ii. Pretreatment of landfill gas (e.g., none, condensate trap, dryer, hydrogen sulfide removal, etc. with the names of manufacturers, models, etc.):

N/A

- iii. Exhaust gas emission control (e.g., none, catalytic converter, etc.):

N/A

- iv. If interconnected with an electric utility:

- Name of the utility: N/A
- Type of utility contract (e.g., sell all/buy all, surplus sale, or net metering):

N/A

- v. If engine-generator set waste heat utilization:

- Heat source (e.g., cooling system or exhaust gas or both) and heat recovery capacity (Btu or kJ/hr):

N/A

- Waste heat utilization (e.g., water heating, space heating, etc.):

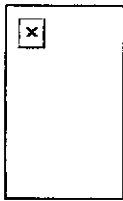
N/A

27. If designed to use on-site as a boiler or furnace fuel, a description of the boiler or furnace including manufacturer, model, and rated capacity (Btu or kJ/hr):

N/A

28. If designed for biogas sale to a third party, a description of the methods of processing, transport, and end use:

N/A



- i. Pretreatment of Biogas (e.g., none, condensate trap, dryer, hydrogen sulfide removal, etc.) include names of manufacturer, model etc.:

N/A

- ii. Exhaust gas emission controls from gas processing step:

N/A

29. Provide a summary and citation of the permits obtained to build and operate this Landfill Gas Utilization System).

There is a permit for the generators which will be installed in the future.