



Landfill Gas Capture/Combustion Project Submittal Form

Instructions: Please complete all fields 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. This is an interactive Word form. Upon completion, please save this form as a PDF prior to uploading 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.

Section 1: Project Contact Information

Project Name (as it appears in the Reserve software): Bi-County Landfill Gas Destruction Project

Account Holder (as it appears in the Reserve software): Bi-County Gas Producers, LLC (BCGP)

Is the Account Holder authorized to sign the "Attestation of Title" form? ☒ Yes ☐ No

Facility Owner: Bi-County Gas Producers, LLC

Technical Consultants: NA

Other Parties with a Material Interest: **NA**

Date of Form Completion: Decemberr 7th, 2010

Form Completed By (name, organization): William P. Brinker, Bi-County Gas Producers, LLC

Section 2: General Project Site Information

1. Name of Landfill:**Bi-County Landfill operated by the Bi County Solid Waste Authority, 3212 Dover Road, Woodlawn, TN 37191**
2. Project Description (Please provide one to two paragraphs): **Bi-County Gas Producers, LLC has been contracted by the Authority to design, build, own, and operate a landfill gas collection and control system. As of the submission of this form, 21 gas wells have been constructed on lined cells, the header system is in place, and the blower flare system became fully operational on October 7th, 2010. Future plans for the**



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facility include electricity generation with the local utility (TVA) to purchase the power (up to 999 kW).

3. Project Site Address (including county and country): **3212 Dover Road, Woodlawn, TN 37191 in Montgomery County, USA**
4. Owner of Landfill (name and organization): **Mr. Pete Reed, Director of the Bi-County Solid Waste Authority, a body politic recognized by the State of Tennessee.**
5. Type of landfill (sanitary, controlled, or open dump): **Sanitary lined landfill**
6. Type of waste accepted (MSW, demolition debris, organic, etc.): **MSW with a separate area for Construction & Demolition Debris, no organic.**
7. Average annual quantity of waste accepted at landfill (cubic meters or tonnes): **140,000 metric tonnes**
8. Total waste in place (cubic meters or tonnes): **1,860,000 metric tonnes**
9. Designed landfill capacity (cubic meters or tonnes): **2,453,000 metric tonnes**
10. Year landfill opened: **1992**
11. Year landfill closed or estimated date of closure: **2031**

Section 3: Project Eligibility and Monitoring

12. Project Start Date (Date project became operational; format MM/DD/YYYY): **10/07/2010**
13. Project Reporting Start Date (First date for which reductions will be reported on the Reserve; format: MM/DD/YYYY): **10/07/2010**
14. 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?

☐ YES ☒ NO



Vintage: NA Reporting Period: NA

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

15. Is the landfill subject to NSPS Regulation? (greater than 2.5 million tonnes capacity)?

☐ YES ☒ NO

16. If applicable, date of most recent Tier I or Tier II NMOC test (format MM/DD/YYYY)? N/A -
Tier I is Scheduled for 2011 - date TBD

a. NMOC emissions per year (Mg/year): N/A

b. Date at which landfill did or is expected to exceed 50 Mg NMOC per year (format
MM/DD/YYYY): Not expected to trigger in the next 10 years due to low intake rate

17. Description and citation of all local and state air and water quality, explosive gas, or other
regulations pertinent to the landfill or project: **BCGP has a voluntary permit to construct a
landfill gas collection system and was permitted by Tennessee Solid Waste
Management on March 19th, 2010; the flare was permitted on July 18th, 2010.**

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

If yes, please explain. **N/A**

19. Has a detailed monitoring plan been developed for this project? If not, what date will a
monitoring plan be in place? **Not Yet - Planned to be in place by the first quarter of 2011**

20. What version of the Landfill Project Reporting Protocol is the project based upon? **3.0 (Dec
2009)**



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Section 4: Pre-project Information

21. Did the landfill ever collect and destroy landfill gas using a non-qualifying destruction device (e.g. passive flares)?

☐ YES ☒ NO

If yes:

- a. What date was this system operational (MM/DD/YYYY): **NA**
- b. Please describe (number of wells, destruction devices, etc.): **NA**
- c. What deduction will be taken to account for this pre-project destruction? **NA**
- d. What is the landfill gas flow rate (in scfm) and methane content? **NA**

22. Did the landfill ever collect and destroy landfill gas using a qualifying destruction device (e.g. candlestick flare, engine)?

☐ YES ☒ NO

If yes:

- a. What date was this system operational (MM/DD/YYYY): **NA**
- b. Please describe (number of wells, destruction devices, etc.): **NA**
- c. What deduction will be taken to account for this pre-project destruction? **NA**
- d. What is the landfill gas flow rate (in scfm) and methane content? **NA**

Section 5: Landfill Gas Utilization Information for Project Activity

23. 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): **An open flare constructed by Carotek Manufacturing began operating on October 7th, 2010. BCGP has a desire to sell electricity to TVA (Tennessee Valley Authority) under a very limited program, called**



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Generation Partners, but as of the submission of this form an agreement has not been reached to generate and sell electricity from the landfill.

24. If designed to generate electricity:

- a. 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 : **NA at the moment (in the future, BCGP hopes to utilize a GE Jenbacher 320 rated for 999 KW generated at 480KV and transformed to 12470 KV or a Caterpillar 3516A+ not yet released to the market but believed to be the most efficient Reciprocating Internal Combustion Engine (RICE) ever offered)**
- b. Pretreatment of landfill gas (e.g., none, condensate trap, dryer, hydrogen sulfide removal, etc. with the names of manufacturers, models, etc.):

NA at the moment

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

None (open flare only, at the moment)

- d. If interconnected with an electric utility:

i) Name of the utility: **NA**

ii) Type of utility contract (e.g., sell all/buy all, surplus sale, or net metering): **NA**

iii) If engine-generator set waste heat utilization:

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

v) Waste heat utilization (e.g., water heating, space heating, etc.): **NA**

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



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

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

ii) Exhaust gas emission controls from gas processing step: **NA**

27. Provide a summary and citation of the permits obtained to build and operate this Landfill Gas Utilization System): **Solid Waste # SNL-63-0108 dated March 19th, 2010, this is a Minor Modification Permit to build the GCCS as a Voluntary Action. Air Quality # 63-0129-04 sub 63775 Dated July 18th, 2010 allows the flare to be constructed and operated as Voluntary Action.**

Additional information: NA
