Final Technical Report

The final scientific/technical report must include the following information and any other information identified under Special Instructions on the Federal Assistance Reporting Checklist:

1. Identify the DOE award number; name of recipient; project title; name of project director/principal investigator
SC-0005168
Buncombe County Government
BUNCOMBE COUNTY WASTEWATER PRE-TREATMENT AND LANDFILL GAS TO ENERGY PROJECT
PI: Jon Creighton, Assistant County Manager

2. Display prominently on the cover of the report any authorized distribution limitation notices, such as patentable material or protected data. Reports delivered without such notices may be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use or reproduction of such reports.

Not Applicable

3. Provide an executive summary, which includes a discussion of 1) how the research adds to the understanding of the area investigated; 2) the technical effectiveness and economic feasibility of the methods or techniques investigated or demonstrated; or 3) how the project is otherwise of benefit to the public. The discussion should be a minimum of one paragraph and written in terms understandable by an educated layman.

The objective of this project was to construct a landfill gas-to-energy (LFGTE) facility that generates a renewable energy source utilizing landfill gas to power a 1.4MW generator, while at the same time reducing the amount of leachate hauled offsite for treatment. The project included an enhanced gas collection and control system, gas conditioning equipment, and a 1.4 MW generator set. The production of cleaner renewable energy will help offset the carbon footprint of other energy sources that are currently utilized.

4. Provide a comparison of the actual accomplishments with the goals and objectives of the project.

The goal of the project was to construct an LGTE facility at the county landfill. The facility has been constructed and the county is currently initializing use of the system. As such, the project goal has been accomplished and the county will soon use the facility as a significant source of renewable energy for the county.

5. Summarize project activities for the entire period of funding, including original hypotheses, approaches used, problems encountered and departure from planned methodology, and an assessment of their impact on the project results. Include, if applicable, facts, figures, analyses, and assumptions used during the life of the project to support the conclusions.

The goal of this funding was to purchase a 1.4MW generator needed to power the LGTE facility. Though this goal was ultimately accomplished and the generator was installed, the one primary issue was the amount of time that it took for the generator to reach the county. The shipment of the generator was delayed for several weeks and thus caused the initial schedule for installation to be pushed back. However, the county was able to work through these issues and has since received and installed the generator.

6. Identify products developed under the award and technology transfer activities, such as:
 - a. Publications (list journal name, volume, issue), conference papers, or other public releases of results. If not provided previously, attach or send copies of any public

releases to the DOE Program Manager identified in Block 15 of the Assistance Agreement Cover Page;

NA

- b. Web site or other Internet sites that reflect the results of this project;

NA

- c. Networks or collaborations fostered;

NA

- d. Technologies/Techniques;

NA

- e. Inventions/Patent Applications, licensing agreements; and

NA

- f. Other products, such as data or databases, physical collections, audio or video, software or netware, models, educational aid or curricula, instruments or equipment.

NA

- 7. For projects involving computer modeling, provide the following information with the final report:

NA