

MONTHLY PROGRESS REPORT FOR CONTRACT NO. 500-00-036

PROJECT 2.1 – ENHANCED LANDFILL GAS PRODUCTION USING BIOREACTORS

REPORT PREPARED BY: COMMONWEALTH ENERGY TEAM

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What we planned to accomplish this period:

In January, the anticipated focus of activity was the continued coordination with San Bernardino County's engineer on conceptual design issues related to the bioreactor project. This activity was to include clarification of tasks and activities identified in the proposed Project 2.1 plan submitted and discussed with the Commission in December. Additionally, it was anticipated that this work would include preparation of a more complete schedule and budget reallocation for the development of a commercial scale demonstration project. As indicated in previous reports, San Bernardino County's ongoing design activities are proceeding in accordance with a schedule for expansion of Cell Unit 3 this summer and fall. The CE Team planned to work closely with County staff to ensure that appropriate activities were undertaken so that the overall expansion project schedule could be met. Further discussion of the draft *Memorandum of Understanding (MOU)* were anticipated in January as the CE Team continued to work with San Bernardino County outlining the goals, roles and responsibilities of the County and the Commonwealth PIER project team.

What we actually accomplished this period:

Task 2.1.1 Characterize Waste to be Placed in Bioreactor:

- As the *Waste Characterization Report* was previously submitted and approved by the Commission, minimal tasks were undertaken in January. However, follow-up phone calls and internal CE Team discussion continued in order to facilitate the completion of the Prioritization Report and other Project 2.1 task planning activities.

Task 2.1.3 Conceptual Design for First Bioreactor

- In January, activities continued on the preparation of the *Conceptual Design Report*, as well as ongoing coordination with the host, San Bernardino County.

- Consultations also continued with BAS, the County's design engineer as part of the effort to implement detailed plans for developing the bioreactor at the Mid-Valley landfill. During January, these detailed plans were further refined, covering all activities from the conceptual design phase through the operation phase. The plan includes both permitting and engineering elements, and in general, involves the integration of our team's PIER bioreactor project elements into the ongoing design work of the Unit 3 expansion (adjacent to and north of the existing cell operations).
- The CE Team also provided Commission staff with an overall environmental permitting schedule along with information on how the PIER bioreactor project relates to the County's ongoing program. This plan included information on how funds could be reallocated, and where the approximate \$4 million in matching funds for construction phase and approximately \$4 million in matching funds for operations phase would be applied.
 - Detailed staffing plans were also developed in order to assure that staff with the proper expertise from BAS and CH₂ would be available to work together on the *Conceptual Design* and *Construction and Test Plan* tasks. As noted in the previous monthly report, of most importance is the additional planning and design activity associated with preparing the project for public bidding. Because it is anticipated that the PIER bioreactor project will be developed in conjunction with the County's *active* Unit 3 expansion project, it is important that the PIER conceptual design work proceed expeditiously.
 - Also, regular conference calls involving BAS and CH₂ continued. The primary focus of these calls in January were to continue on refining the integrated plan for linking ongoing work at Mid-Valley with the PIER program's bioreactor project – specifically in light of environmental, schedule and funding considerations. An overall approach was also developed for achieving the project's goals and objectives at a commercial scale facility.

How we are doing compared to our plan:

Work is generally proceeding as anticipated. The CE Team continues to closely coordinate the work of the PIER program with that of the County's design engineer BAS, to ensure this work is completed in a timely and efficient manner, and in accordance with PIER Program guidelines and timeframes.

Significant problems or changes:

There are no significant fiscal problems to report during this period and work is proceeding within Project budget. Progress and expenditures will result in the project being completed on time under the revised Exhibit B schedule and within budget.

What we expect to accomplish during the next period:

February’s focus of activity will be the continued collaboration with San Bernardino County’s engineer related to design concept issues for the bioreactor project. The CE Team anticipates that they will focus on the preparation of technical information, which will be included in the *Conceptual Design Report*, as well as in the *Construction and Test Plans*. Additionally, construction design tasks will be undertaken, which will support subsequent design activity, as is required on larger projects due to the public bidding process. Further steps will be undertaken to incorporate the design work of BAS into the CE PIER Program activities to insure close linkage with ongoing activities within San Bernardino County. Discussions will continue on the draft *Memorandum of Understanding (MOU)* with the County as well.

Status of Milestones and Deliverables:

Table 1 on the following page summarizes the status of Project 2.1 task deliverables as of the end of the current reporting period.

Table 1: Summary of Project Status and Deliverables – Project 2.1

Task No.	Description	Start Date		Due Date		Status (%)
		Planned	Actual	Planned	Actual	
2.1.1a	Characterize MSW and Source-Separated Organic Waste to be Placed in Both Bioreactors	01/10/02	1/24/03	05/31/02 08/21/03	DR: 08/20/03	100%
2.1.1b	Characterize Food or Animal Wastes to be Placed as Amendment in the Second Bioreactor	03/25/02	1/24/03	On Hold		8%
2.1.2	Identify Amendment Source Locations for the Second Bioreactor	05/26/02		On Hold		
2.1.3a	Prepare Conceptual Design for the First Bioreactor	09/28/02		12/18/03		20%
2.1.6	Coordinate with RPAC/TAC	01/10/02		04/26/06		

Overview of Fiscal Status:

Table 2 below summarizes the fiscal status of Project 2.1 by task/deliverable as of the end of the current reporting period.

Table 2: Fiscal Status By Task – Project 2.1

Task Number	Budget	Invoiced To-Date¹	Fiscal Status *
2.1.1 a	\$52,117	\$52,117	OT
2.1.1 b	\$53,064	\$0	OT
2.1.2	\$40,476	\$0	OT
2.1.3 a	\$103,578	\$0	OT
2.1.6	\$45,024	\$0	OT

*Fiscal Status – Please indicate if you are “On Track” (OT), OverBudget (OB), or UnderBudget (UB)

¹ Invoiced To-Date indicates the total amount invoiced prior to 10% retention being withheld