

US EPA ARCHIVE DOCUMENT

**State Innovation Grant Project  
Narragansett Bay Commission  
Progress Report - 6  
January 1, 2010 – March, 31 2010**

**Project Title:** Sustainable Energy Management Practices for Wastewater Treatment Facilities

## **Part 1 – Synopsis of Accomplishments**

During the current Project Reporting Period January 1<sup>st</sup> through March 31<sup>st</sup>, 2010 the following activities took place: the Project Partners (NBC, RIDEM, URI and RIMES) and EPA continued to meet and participate on conference calls to discuss and plan activities associated with project development and implementation, an EF-EMS Roundtable Meeting was held on February 3<sup>rd</sup>, a presentation was made by NBC on Sustainable Energy Management Systems for WWTFs at the NEWEA Annual Conference on January 27<sup>th</sup>, three Energy Use Audits were conducted of participating WWTFs and work continued on the development of a FOG-BMP Workbook.

## **Part 2 – Summary of Activities Accomplishments – Sixth Project Quarter**

### **I. WWTF Energy Focused Environmental Management System Project**

#### **EF-EMS Planning**

##### **Scoping Study Steering Committee**

On January 21<sup>st</sup> representatives from NBC URI, and RIMES met with representatives from National Grid, DMI, NEIWPC and EPA to discuss energy audit plans, coordination with other agencies, and progress being made with respect to the EF-EMS process.

#### **Energy Use Audits**

##### **Burrillville WWTF Energy Assessment**

On February 18<sup>th</sup> DMI, an energy contractor hired by National Grid along with NBC staff conducted an Energy Use Scoping Study of the Burrillville WWTF.

On Tuesday, March 16, 2010, the ESTA Manager and NBC's ESTA P2 Engineer participated in a conference call regarding the DMI Scoping Study for Burrillville WWTF with National Grid.

On Wednesday, March 10, 2010, NBC's ESTA P2 Engineer met with the Essex Group at the Burrillville Wastewater Treatment Facility regarding the potential to produce hydroelectric power.

##### **North Smithfield WWTF Energy Assessment**

During the month of March DMI, an energy contractor hired by National Grid, conducted Scoping Studies of the North Smithfield WWTF and Cranston WWTF.

#### **Cranston Wastewater Treatment Facility**

On Wednesday, March 24, 2010, NBC's ESTA P2 Engineer conducted an energy audit of the Cranston Wastewater Treatment Facility with DMI.

### **EF-EMS Roundtable**

On February 3<sup>rd</sup> a WWTF EF-EMS Roundtable Meeting was held in the NBC Board Room with 17 attendees. During this meeting Barbara Cesaro from the Rhode Island Office of Energy Resources discussed energy grant opportunities in the State of Rhode Island.

### **Plan-Do-Check-Act PDCA Spreadsheet**

On February 3<sup>rd</sup> NBC and EPA staff filled out the UMass Lowell PDCA "Spider Graph" Spreadsheet for the NBC FP and BP WWTFs.

## **II. FOG Environmental Results Program Project**

### **FOG Best Management Practices (BMP) Factsheets**

During the current reporting period URI completed a final draft of the FOG BMP Workbook.

### **Biodiesel/Glycerin**

In response to a request from the NBC Bucklin Point (BP) WWTF, investigations were initiated into the feasibility of shipping a glycerin by-product of a biodiesel production process to the BP WWTF for use as a carbon source within the BNR process. Efforts associated with this project conducted to-date include meeting with RIDEM to identify regulatory concerns and collecting samples of the glycerin material for chemical analysis.

During the month of February 2010 a letter was sent to RIDEM outlining NBC's interest in utilizing this material along with a copy of analytical results of a sample of glycerin collected from a local biodiesel manufacturer (CPR Biodiesel). On February 3<sup>rd</sup> 2010 additional glycerin samples were collected from CPR Biodiesel and were submitted to the Lab for analysis.

On March 3, 2010 NBC's PP&R Director and ESTA Program Manager attended a meeting with Governor Carcieri on Biodiesel manufacturing sponsored by Newport Biodiesel. Newport Biodiesel produces a clean-burning and sustainable fuel from waste vegetable oil collected from over 500 Rhode Island and Massachusetts restaurant partners and with a production capacity 2,500 gpd, is the State of Rhode Island's largest biodiesel production facilities. During this meeting Mr. Christopher Benzak of Newport Biodiesel conducted a tour of the production facility for the Governor and other guests emphasizing the importance and benefits of Newport Biodiesel's partnership with NBC to help promote the use of waste restaurant grease as a renewable fuel.

## **Part 3 – Projection of Activities, Accomplishments, and Major Expenditures for Next Quarter Report**

### **I. WWTF Energy Focused Environmental Management System Project**

- A Roundtable Meeting is scheduled for May 13<sup>th</sup>, 2010
- Continue with Energy Use Assessments in cooperation with National Grid

**II. FOG Environmental Results Program Project**

- FOG-ERP Steering Committee – Form Steering Committee and schedule first meeting
- ERP Certification – Finalize Workbook and Certification procedures

**Part 4 – Financial Report**

A summary of grant related expenses to-date is as follows:

	Salary	Fringe	Non-Classified Limited	Total Personnel	Operating	Travel	Overhead Expenses	Match Funds	Grant Funds
<b>NBC</b>	\$17,470	\$7,530		\$25,000				\$25,000	\$25,000.00
<b>RIDEM</b>									\$0.00
<b>RIMES</b>				\$14,250					\$14,250.00
<b>URI</b>	\$94,396.83	\$20,875.58	\$11,411	\$126,683.80	\$70.00	\$1,951.53	\$32,408.34	\$30,889	\$161,113.67
<b>Total:</b>				\$165,933.80	\$70.00	\$1,951.53	\$32,408.34	\$55,889.28	\$200,363.67

**Attachments:**

1. Project Milestone Summary Table
2. Draft FOG-ERP Workbook