

**GREENHOUSE GAS EMISSIONS REDUCTION FUND**  
**Quarterly Progress Report Form**  
**Stonyfield Farm, Inc.**  
**Progress Report #3**

1. Program Title: Plant Utility Systems Optimization through Energy Controls
2. Program Type: Energy efficiency related industrial process and control systems
3. Summary of work completed during this reporting period **April 1, 2010 through June 30, 2010.**
  - a. Task 1: Specification Development – 100% Complete In Previous Progress Report #1.
  - b. Task 2: Steam System Modifications – 100% Complete.
    - i. Installed circuit Setters on CIP System.
    - ii. Installed Needle valve on non-condensable vapor line from DA Tank.
    - iii. Installed DA Tank pressure Control .
  - c. Task 3: Refrigeration System Modifications – 90% Percent Complete.
    - i. Installed and started VFD for ammonia compressor.
      1. Completed programming and now working on fine tuning.
    - ii. Installed and started VFDs for ammonia condensers.
    - iii. Installed VFDs for glycol pumps and completed programming.
    - iv. Installed pressure sensors.
    - v. Calibrated temperature sensors.
    - vi. Balanced glycol water networks.
  - d. Task 4: Compressed Air Tuning – 90% Percent Complete.
    - i. Installed and programmed Global Control valve.
    - ii. Installed Surge tank.
    - iii. Installed Global Controller for air compressors. Tested controls and sequencing, need to reprogram and re-test.
  - e. Task 5: HVAC System Modifications – 100% Complete In Previous Progress Report #1.
  - f. Task 6: Verification - Percent Complete = 0%.
  - g. Task 7: Project Management/Administration – 80% Percent Complete.
    - i. Managed work to date

Delays:

Task # 3:

1. Control cabinet for Condenser Fan VFD's was delayed due to manufacturer. Installation was completed. We must wait for slightly cooler weather to carryout program changes via E-prom chips. Expected to install August.

Task #4:

1. In order to control all 3 air compressors it is necessary to purchase additional control boards as the existing boards were found to be non-operational. These are expected to arrive August.
2. The VFD on the air compressor with the VFD shorted in the capacitor. Another VFD was ordered and installed. Due to this the programming was in-validated and needs to be re-written and installed. This will delay the global controller start-up until the last week of July.

Task #7:

1. Verification has been delayed due to the delays in Task #3, and Task #4. This delay is necessary to provide quality verification data. Verification has now been moved from the end of June to the end of September.

2. Verification has been delayed due to data collection system failure. The Ethernet switch failed and is currently on order expected arrival end-of-July. Three “Adam” modules that receive and translate the data failed due to hot weather. These three modules are for steam, ammonia compressors and compressed air. One module has arrived and the other two are expected to arrive at the end of July.

4. Summarize work to be completed next quarter: **July 1, 2010 – September 30, 2010.**

- a. Task 1: Specification Development – Already Complete
- b. Task 2: Steam System Modifications – Already complete
- c. Task 3: Refrigeration System Modifications
  - i. Install program for sequencing and modulation of ammonia condensers
- d. Task 4: Compressed Air Tuning
  - i. Start-up, test sequencing, and place into service compressed air Global controller.
- e. Task 5: HVAC System Modifications – Already Complete
- f. Task 6: Project Management/Administration
  - i. Manage on-going work
- g. Task 7: Begin Verification

5. Please document any jobs created.

- a. Contractors Worked 1,012 hours this period.
- b. Stonyfield Farm Inc. employees worked 47 hours this period.

6. Explain any obstacles encountered or any milestones not reached.

Task # 3:

- i. Control cabinet for Condenser Fan VFD’s was delayed due to manufacturer. This delayed the delivery of the E-Prom chips that will control the condenser fans.

Task # 4:

- ii. In order to control all 3 air compressors it is necessary to purchase additional control boards as the existing boards were not operational. These are expected to arrive Mid-July.
- iii. The VFD on the air compressor had an electrical short circuit in the capacitor causing a small fire and placing all other air compressor work on hold. Another VFD was ordered and installed. Due to this the programming was no longer valid and needs to be re-written and installed. This will delay the global controller start-up until the first week of August.

Task # 7:

- iv. Verification has been delayed due to the delays in Task #3, and Task #4. This delay is necessary to provide quality verification data.
- v. Verification has also been delayed to failures in the data collection system. One Ethernet switch failed, and three “Adam” mod bus modules failed. Verification will begin after the compressed Global controller is in service.

7. Budget vs. Actual Expenditures: See invoice Budget vs Actual June 30