National Biosolids Partnership

Biosolids Management Program Interim Audit Report

New England Organics Hawk Ridge Composting Facility
Portland and Unity, Maine

Audit Dates: April 16 and 17, 2012 + Follow-up Audit July 12, 2012

Audit Conducted By: DEKRA Certification, Inc. (Chalfont, PA)

Audit Team: Mr. Jon Shaver, Biosolids EMS Lead Auditor / Biosolids Auditor

Report Written By: Mr. Jon Shaver

Report Date: July 17, 2012

Reviewed By: Mary Waring, New England Organics, July 16, 2012

Approved By: Pierre Salle, Managing Director DEKRA Certification, Inc.

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1. SUMMARY

DEKRA Certification, Inc. (DEKRA) conducted an independent audit of the biosolids management program being used by the New England Organics Hawk Ridge Composting Facility (New England Organics). The audit was conducted April 16 and 17, 2012 at the Hawk Ridge Composting Facility at New England Organics' request, and was Interim Audit #3 following DEKRA's Verification of the New England Organics biosolids management program in January, 2009. A Corrective Action / Follow-up Audit was also conducted July 12, 2012.

Audit Purposes

This interim audit was conducted to:

- Verify that the biosolids management program being used by New England Organics conforms to expectations of the National Biosolids Partnership (NBP) and requirements of the NBP EMS Elements.
- Confirm that the New England Organics biosolids management program is functioning effectively, with practices and procedures being performed as documented.
- Examine outcomes New England Organics is achieving by using a systematic approach for managing its biosolids program.
- Verify that effective corrective action has been taken in response to open nonconformances from previous third party audits.

Summary of Audit Activities and Results

Consistent with NBP requirements for interim audits, DEKRA reviewed the dynamics of New England Organics' biosolids program and audited parts of that program for conformance with expectations and requirements of the NBP Biosolids Management Program Elements (audit criteria). The audit scope was consistent with NBP requirements and the interim audits program agreed by New England Organics and DEKRA.

One major nonconformance and two minor nonconformances with respect to the audit criteria were found during this audit. New England Organics took corrective action in response to the major nonconformance and subsequent review by DEKRA's Lead Auditor confirmed that nonconformance was effectively corrected. New England Organics has developed corrective action plans to address the remaining minor nonconformances and those plans have been approved by DEKRA's Lead Auditor.

Audit Conclusions

The audit determined that:

- The New England Organics biosolids management program is functioning effectively and generating positive outcomes.
- The program meets NBP expectations and requirements of the NBP EMS Elements, with minor exceptions.
- All nonconformances from prior third party audits have been effectively corrected.

Based on results of this audit, DEKRA verifies that the New England Organics biosolids management program meets NBP expectations and requirements. We recommend continuing certification within NBP Biosolids Management Program.

2. AUDIT DETAILS

2A. Local Agency Details

Biosolids Preparer Name: New England Organics, Portland Maine

Facility: Hawk Ridge Composting Facility, Unity Plantation, Maine

Volume of Biosolids Compost Produced = 90K cubic yards per year

Number of Full Time Employees = 42 (total New England Organics)

Biosolids Use / Disposition Sites Audited

Hawk Ridge Composting Facility

2B. Audit Team

New England Organics asked DEKRA Certification Inc. to conduct this Third Party Audit of their biosolids program. Mr. Jon Shaver led the audit on behalf of DEKRA. Mr. Shaver is certified by the National Biosolids Partnership as a Biosolids EMS Lead Auditor and Biosolids Auditor. DEKRA asserts that our firm and auditor have an independent relationship with New England Organics that meets NBP criteria for Third Party Audit Companies and Auditors.

2C. Audit Criteria, Scope and Methodology

Audit Criteria

Requirements stipulated in the National Biosolids Partnership (NBP) Biosolids Management Program Elements (July, 2011) and the New England Organics "Biosolids Management System" were used as criteria for this audit.

Audit Scope

The scope of this audit covered parts of the New England Organics biosolids program, with special attention to practices and management activities that directly support biosolids-related operations, processes and activities. The audit covered the following topics, consistent with NBP requirements for interim audits and the interim audits program and Scope of Work for this audit agreed by New England Organics and DEKRA.

1. Management System Dynamics (+Effectiveness Review)
   - Significant changes
   - Biosolids Policy
   - EMS Changes (incl documentation)
   - Internal Audits
   - Review of Effectiveness - Communications Program, Corrective & Preventive Action Process, Goals & Objectives Process, Management Reviews
2. Process Audits (covering all applicable requirements of the NBP EMS Elements)
   - Compliance (with legal & other reqts)
   - Corrective and Preventive Action
   - Emergency Preparedness

- EMS Planning
- Internal EMS Audits
- Management Involvement
- Product Blending

3. Review corrective action taken for open nonconformances from previous third party audits
4. Examination of outcomes being achieved by New England Organics in the areas of regulatory compliance, interested party relations, environmental performance and quality practices.
5. Interested party interviews

Audit Methodology

The audit was conducted by interviewing key personnel with biosolids responsibilities, observing practices in place and reviewing pertinent documents and records. Interested parties were interviewed and transaction tests were performed to verify management system effectiveness. It was performed in a manner that is consistent with the NBP Auditor Guidance. Standard audit sampling techniques were used.

2D. Definitions of Audit Findings & Required Corrective Action

Major Nonconformance – a serious omission from requirements and/or other departure that represents, or could cause, a systemic failure, or the existence of multiple related minor nonconformances, or failure to effectively correct a nonconformance in a timely manner. For verification to proceed, correction of major nonconformances must be verified by a third party audit within 90 days.

Minor Nonconformance – an isolated departure from requirements that does not represent a systemic failure. Minor nonconformances require timely and effective correction by the agency and verification by a Third Party Auditor during the next third party audit.

Opportunity (for improvement) – possible improvement in the EMS based on auditor observations. There is no obligation for action in response to these observations.

2E. Reference Materials

The following documents were used as references during this audit:

New England Organics BMS Manual (current version)
National Biosolids Partnership "EMS Elements" (July 2011)
National Biosolids Partnership Biosolids Management Program Third Party Auditor Guidance (August 2011)
National Biosolids Partnership Code of Good Practice
National Biosolids Partnership Manual of Good Practice

2F. Appeals

The NBP provides an appeals process for biosolids organizations and interested parties that disagree with the findings of a third party EMS audit. The verification appeals process involves an Appeals Board; representing a balance of biosolids management interested parties, including an environmental advocacy group, and wastewater industry professionals. An appeal must be submitted within 30 days of the official verification decision or interim audit decision by the Audit Company. Information about

the appeals process is available from the National Biosolids Partnership. Contact Mr. Jim Cox (703-684-2438, jcox@wef.org).

An appeal process is available to persons concerned about the methods and/or scope of this audit. Further information about this appeal process can be obtained from DEKRA (contact Pierre Salle, pierre.salle@DEKRA.com or Jon Shaver jon.shaver@dekra.com) or from NBP (contact Jim Cox, jcox@wef.org).

2G. Additional Information

Further information about this audit and/or the National Biosolids Partnership Biosolids Program can be obtained from New England Organics. Contact Ms. Mary Waring (e-mail: mary.waring@casella.com).

3. SUMMARY OF AUDIT RESULTS

3A. Strengths

During this audit, DEKRA noted the following strengths in the New England Organics biosolids management program.

- Management is developing a good understanding of using a systems approach.
- Focus on product quality for long term market position
- The new office constructed at Hawk Ridge uses excellent energy minimization techniques, such as waste heat recovery for heating and cooling the office

3B. Audit Findings – Nonconformances Remaining Open

Two minor nonconformances found during this audit remain open. New England Organics has submitted a Corrective Action Plan for each nonconformance and DEKRA's Lead Auditor has approved those plans. New England Organics will complete the corrective action in a timely manner and DEKRA's Lead Auditor will verify effective correction of each nonconformance during the next Third Party Audit (see Agreements). The nonconformances remaining open are listed below, with reference to the applicable EMS Element.

Minor Nonconformance JS 12-01/ 5 NBP EMS Element 5 requires that goals and objectives reflect identified priorities for improving biosolids management activities. The system link between "Core Values" and "Strategic Initiatives" and biosolids program goals and objectives is not clear.

Minor Nonconformance JS 12-02/ 11 NBP EMS Element 11 requires the organization to establish and maintain emergency preparedness and response plans and procedures to ensure effective response to accidents and emergency situations and to review and evaluate the effectiveness of those plans. The NEO EMS Manual requires emergency plans to be reviewed at least annually, however the current plan has not been reviewed in nearly 2 years. Also, emergency plans are not being reviewed as part of incident investigations.

3C. Audit Findings – Nonconformances Closed Following Audit

During the initial onsite audit (April 16 and 17, 2012) DEKRA found one major nonconformance with respect to the audit criteria. As a result, New England Organics took corrective action and DEKRA reviewed the effectiveness of that corrective action on July 12, 2012. The results of that review are noted below

The following nonconformances found during DEKRA's audit in March 2011 were not effectively corrected and was therefore escalated to a Major Nonconformance.

Major Nonconformance JS / 11-04/17 NBP EMS Element 17 requires that management review performance of the biosolids program relative to established performance measures.
The Q4 2010 "Biosolids Program Management Review" does not include description (or discussion) of performance measures.

Corrective Action - New England Organics determined that this nonconformance was caused by an inadequate procedure. In response they modified their Management Review procedure to include an operations level review of performance against key performance indicators and performance against goals and objectives. Results of the Operations level review are then reported to Directors for high level review. Follow-up by DEKRA's Lead Auditor confirmed that this procedure is being effectively used. This nonconformance is now closed.

Minor Nonconformance JS / 11-03/14 NBP EMS Element 14 requires corrective actions be taken to address identified nonconformances. Corrective action determined necessary for an incident that was recorded in May 2010 was not completed over 8 months past the June 2010 deadline. The action, therefore, is considered to have not been effectively implemented.

Corrective Action - New England Organics determined that this nonconformance was caused by necessary timing to address an incident investigation. In response they accelerated the investigation of the May 2010 incident and took action in response to that investigation. This nonconformance is now closed.

3D. Verification Conclusion

Based on the results of this audit, DEKRA has verified that the New England Organics biosolids management program continues to meet the National Biosolids Partnership expectations and requirements. Continuing certification within the NBP Biosolids Management Program is recommended.

3E. Agreements

New England Organics and DEKRA have agreed that the next Interim Audit (#4) will occur in March 2013. Since a major nonconformance was found during the 2012 interim audit, DEKRA has determined that the next Interim Audit will be a Third Party Audit. If the NEO biosolids processing facility being built in New York State is functioning effectively by March 2013 New England Organics may request that DEKRA also verify the management system being used at that plant as part of the 2013 audit.

4. MANAGEMENT PROGRAM DYNAMICS

Review of the management system dynamics and outcomes is intended to verify that the bioslids management system is functioning effectively and generating positive outcomes (results) and that changes are being incorporated into the system. The following summarizes DEKRA's review of the dynamics of the New England Organics biosolids management program.

4A Significant Changes

No structurally significant changes affecting the New England Organics biosolids program have occurred since the previous Third Party Audit. A new plant is being constructed in upper New York State for producing compost from local biosolids. That plant will be included in future audits following startup.

4B Revisions to the Management System and Related Documentation

No structurally significant revisions have been made in the New England Organics Management System since the previous Third Party Audit. Minor changes were made in the Manual to correctly reflect the New England Organics "biosolids management system" and to combine some related Elements. The manual remains structured as a series of elements corresponding to the NBP Biosolids Management Program Elements (formerly EMS Elements).

4C Examination of Outcomes

The New England Organics biosolids management system / program is improving through the use of a systematic approach to managing their biosolids activities. The following improvement outcomes within the past two years were confirmed.

<u>Environmental Performance</u>

Added waste heat recovery and geothermal cooling for office (reduced energy use approx $15K/year

<u>Biosolids Quality</u>

Aligned fiscal and strategic years demonstrating EMS being incorporated into the business.

Pasteurization and Turner trials have improved quality based on customer input.

<u>Regulatory Compliance</u>

Added review and closure of incident investigations (closed loop process).

<u>Interested Party Relations</u>

Several interested parties and customers have responded favorably to NEO product quality.

4D Correction of Nonconformances from Previous Third Party Audits

Corrective action taken in response to nonconformances from the DEKRA's Interim Audit of the New England Organics Biosolids Management System in March 2011 and the status of those nonconformances are sumarized below.

Minor Nonconformance JS 10-01/3 New England Organics definition of critical control points and operational controls states that they address legal, quality and public acceptance requirements. New England Organics' identification of critical control points and operational controls does not clearly reference legal, quality or public acceptance requirements.

> Corrective Action – New England Organics determined that this nonconformance was caused by a lack of understanding about critical control points. In response, they reviewed critical control point concepts internally and revised their list to include legal requirements, environmental impacts, quality requirements and important interested party relations affected by each control point. This nonconformance is now closed.

Minor Nonconformance JS / 11-01/3 NBP EMS Element 3 requires the organization to identify potential or actual environmental impacts at each critical control point.
The revised Critical Control Point table notes that "environmental performance" needs to be controlled, however in some cases does not specify the performance or impact(s) that require control.

> Corrective Action – New England Organics determined that this nonconformance was caused by a lack of understanding about impacts. In response, they reviewed critical control point table to note environmental impacts and risks. This nonconformance is now closed.

Minor Nonconformance JS / 11-02/9 NBP EMS Element 9 requires the organization to communicate information about its biosolids policy, biosolids management activities and EMS to employees.
Some aspects of the EMS are not fully understood by Transportation personnel. Awareness of EMS has not been fully communicated to those employees.

> Corrective Action – New England Organics determined that this nonconformance was caused by incomplete / ineffective training. In response, they retrained Transportation and other personnel at Hawk Ridge in requirements of their Biosolids Management system. This nonconformance is now closed.

4E Biosolids Policy Commitments

The New England Organics Biosolids Management Policy remains as approved in 2009. The Policy includes a commitment to follow the principles of the NBP Cde of Good Practice. Review of performance in meeting commitments made in that Policy demonstrated the Policy has been incorporated into the Biosolids Management Program and that continual improvements are occuring.

4F Effectiveness Reviews

<u>Communications Program</u>

The New England Organics Communications Program includes proactive methods for communicating with interested parties, including the public and regulators. Communication occurs through public meetings, tours and public presentations at the Hawk Ridge facility. Product improvement through compost turning has resulted from interested party input and pasteurization trials are ongoing.

<u>Biosolids Goals and Objectives Process</u>

Four objectives for 2011 were achieved, two were not achieved and 2 remain in progress. Objectives were updated or continued for 2012. The Goals and Objectives process is working effectively.

Corrective and Preventive Action Process

The Corrective and Preventive Action process was used to address nonconformances from previous Third Party Audits and internal audits. The process was effective in recording, planning and correcting most nonconformances.

Management Review

Management involvement has been demonstrated through actions taken regarding issues raised in management reviews and programs for measurement and improvement. The actions taken are consistent with defined objectives. A Workgroup, comprised of biosolids Operations, Sales and Compliance personnel meets monthly to review the performance of the biosolids management program and discuss improvements. In addition, reports of biosolids program performance is discussed with senior management quarterly. Follow-up actions are recorded.

4G Interested Party Interviews

During this audit, DEKRA interviewed the Kennebec County Administrator and two customers using compost from the Hawk Ridge Facility. All parties interviewed noted that New England Organics' communication with them is open and proactive and requests are handled effectively.

4H Audit Results – Management Program Dynamics & Effectiveness

Review of the dynamics of the New England Organics Biosolids Management System confirmed that it is functioning effectively and generating positive outcomes.

5. PROCESS AUDITS

5a. Summary

As part of this audit DEKRA audited the following processes that New England Organics uses within its biosolids management program and determined the level of conformance of each process with NBP expectations and requirements of the audit criteria.

Process	Conformance with Applicable BMP Elements
Compliance (with legal & other reqts)	Conforms
Corrective and Preventive Action	Conforms
Emergency Preparedness	Conforms, except as noted below
BMP Planning	Conforms, except as noted below
Internal EMS Audits	Conforms
Management Involvement	Conforms
Product Blending	Conforms

5b. Process Audit Results

Audit of the processes listed above determined that they are functioning effectively and meet requirements of the NBP BMP Elements, except as noted below.

Minor Nonconformance JS 12-01/ 5 NBP EMS Element 5 requires that goals and objectives reflect identified priorities for improving biosolids management activities. The system link between "Core Values" and "Strategic Initiatives" and biosolids program goals and objectives is not clear.

Minor Nonconformance JS 12-02/ 11 NBP EMS Element 11 requires the organization to establish and maintain emergency preparedness and response plans and procedures to ensure effective response to accidents and emergency situations and to review and evaluate the effectiveness of those plans. The NEO EMS Manual requires emergency plans to be reviewed at least annually, however the current plan has not been reviewed in nearly 2 years. Also, emergency plans are not being reviewed as part of incident investigations.

5c. Opportunities for Improvement

The following “opportunities” for improving the New England Organics biosolids program were noted during the audit. Opportunities do not represent nonconformances and New England Organics has no obligation to take any action in response to them.

- Management could measure how well NEO "exceeds regulatory requirements" and "fulfills customer expectations " (statements in Policy)
- Subcontractor drivers could be asked (expected?) to inform NEO of any equipment compliance issues and to ensure preventive maintenance is being performed as required.

- Internal audits of the system could be done more frequently, especially in areas / processes that are new or have problems.
- Improved understanding of systems thinking could now allow the "NEO Management System" to be developed as a system that is unique to NEO (and fit requirements of the standard into the system)

APPENDICES

List of Participants

The following persons participated in this audit. Other persons provided additional explanations, as needed.

New England Organics Personnel

George Belmont	HRCF Facility Manager
James Ecker	General Manager
Mike Hodge	Operations Manager
John Kelly	Director of Product Sales
Jeff McBurnie	Director of Strategic Permitting & Regulatory Affairs
Mary Waring	Compliance Mgr (+ EMS Coordinator)

Other

Bob Devlin	Kennebec County Administrator (interested party)
Louis Huard	Compost customer (interested party)
Paul Morisette	Compost customer (interested party)

List of Documents & Records Reviewed

Biosolids Program Management Review Q4 2011
BMS Manual - January 2012
Cassella compliance audit 3/8/12, 9/15/12
Compliance audit 4/4/12
Compost Turner trial report
Corrective Action Plans (for audit nonconformances)
CSA 2010 website
Directors' monthly meting minutes 11/22/11, 1/20/12
Draft fiscal year 2013 action plan & tracking template
Earthlife Product information 3/28/11
Emergency Preparedness binder (+ emergency plans)
Energy usage data 2008 - 2011
Follow-up - acid spill 11/5/08
HRCF incident log 2011
Internal audit report 12/9/2010
List of legal and other requireemnts (table 4.1)
MeDEP correspondence 1/2/12
Product brochures - GroMax, SuperPeat, NutriMulch
Regulatory compliance calendar 2012

END OF REPORT