


Internal Audit Report

Kent County Regional Wastewater Treatment Facility Milford, Delaware

Audit Report Date: September 30, 2010

Audit Conducted By:

William Vincent, Operations Supervisor 
William Woodall, Electrician III *W.W.*
David Whitney, Biosolids Technician III *DW*

Audit Date: September 28, 2010

Report Written By: William Vincent, and David Whitney

1. SUMMARY

Internally trained auditors performed this audit, following the Environmental Management System (EMS) audit concepts and ISO 14000 Auditing Standards. The auditors observed practices in place, interviewed key persons and reviewed pertinent documents and records to assess the systematic performance of each process audited.

The purposes of this audit was to:

- Verify that the EHSS-MS being used by Kent County Regional Wastewater Treatment Facility is being operated consistent with the Environmental Health and Safety Policy effective during the period since the last internal audit (November 5, 2009) and that its suitable, adequate and effective.
- Confirm that the Kent County Regional Wastewater Treatment Facility EHSS-MS is consistent with the NBP Code of Good Practice regulatory requirements.
- Determine if Kent County Regional Wastewater Treatment Facility is meeting its stated EHSS-MS objectives, targets, and EMP tasks.
- Determine if the EHSS-MS is adjusting to changes within the facility and being continually improved.

A. Audit Scope and Methodology

The Kent County Regional Wastewater Treatment Facility EHSS-MS encompasses industrial pretreatment, wastewater collection and treatment. Biosolids processing, stabilization, and land application.

1. Verification of open nonconformance's from previous audits (November 5, 2009)
2. Review of significant program changes.
3. Audits of the following processes:
 - Kent County Regional Wastewater Facility EHSS-MS manual
 - Adequacy, suitability, and effectiveness
 - Management Review
 - EHSS-MS Management Plan review and progress towards targets
 - Critical Control Points
 - Goals and Objectives
 - NBP Code of Good Practice
 - Continual Improvement activities.

B. Summary of Audit Findings

EHSS-MS Strengths

The internal auditors noted the following strengths in the Kent County Regional Wastewater Treatment Facility (KCRWTF) EHSS-MS program.

- The KCRWTF EHSS-MS program has effectively surpassed its regulatory requirements and obligations over the past year.
- The KCRWTF is continuing to upgrade the biosolids processing methods with the goal of improving operating efficiency, reducing overhead cost, and biosolids quality.
- Senior management has a strong dedicated team, who are committed to the future by forecasting upgrades and changes, which will improve health and safety, reduce the impact on the environment, and significantly decreasing operational expenses.

Major Nonconformance

- The auditors did not discover any Major Nonconformance items.

Minor Nonconformance

- The auditors found 2 Minor Nonconformance items during this audit, which are described in Section 2 of this report.

Opportunities for Improvement

- The auditors noted several opportunities for improvement in the Kent County Regional Wastewater Treatment Facility EHSS-MS. These are described in Section 2 of this report.

B. Reference Materials

Kent County Regional Wastewater Treatment Facility Management System (EHSS-MS) Manual
Kent County Environmental Health Safety and Biosolids Policy
National Biosolids Code of Good Practice
Core Team Meeting Record and Safety Meeting Minutes

C. 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.

Minor Nonconformance – an isolated departure from requirements that does not represent a systemic failure.

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

2. AUDIT RESULTS

A. EMSS-MS Changes

There has been no major change in the EMSS-MS documentation since the last internal audit conducted on November 6, 2009, although they have adopted a new commitment of "Sustainability", which is reflected in the acronym.

B. Audit Results

EHSS-MS Element	Status
Have the significant environmental aspects been re-evaluated this year?	September 16, 2010
Have the significant health and safety aspects been re-evaluated this year?	September 16, 2010
Have the critical control points been re-evaluated in the past year?	September 16, 2010
Have there been changes to the operations that have required the management of change procedure?	Yes
Have all employees received annual EMS training?	No
Are environmental objectives on schedule?	Yes
Have environmental targets been met?	Yes
Have environmental targets been met or modified with a logical explanation given for missed dates?	No
Are health and safety objectives on schedule?	Yes
Have health and safety targets been met or modified with a logical explanation given for missed dates?	Yes
Are biosolids objectives on schedule?	Yes
Have biosolids targets been met or modified with a logical explanation given for missed dates?	Yes
Are EMP tasks assigned?	Yes
Have EMP tasks been met?	Yes
Have EMP tasks been modified, if appropriate?	Yes
Has the Core Team conducted a management review this year?	September 16, 2010
Have changes to aspects, CCP's, and objectives and targets been effectively communicated to all employees?	Yes
Is the current EHSS-MS policy effectively written:	-----
- Compliance	Yes
- Consistent with NBP Code of Good Practices	Yes
- Promotes continual improvement	Yes
- Is the EHSS-MS information current, readily shared, & communicated?	No
- Promote pollution prevention, energy conservation, and effective Health and Safety practices?	YES
- Has a compliance assessment been conducted in the past year?	No
Is the NBP Code of Good Practice posted?	Yes
Is each principle of the NBP Code of Good Practice followed:	-----
- Compliance?	Yes

- Product that meets 503 Class A definition?	Yes
- EMS operating as intended?	Yes
- Quality monitoring conducted?	Yes
- Good housekeeping in biosolids area?	Yes
- Emergency plans?	Yes
- Commitment to sustainable and environmentally acceptable biosolids?	Yes
- Preventive maintenance practiced?	Yes
- Continually improved?	Yes
- Effective communications?	Yes
- Are efforts made to continually improve the EHSS-MS process?	Yes
Are pollution prevention, energy conservation and employee health and safety practices followed?	Yes

C. Major Nonconformance

- None.

D. Minor Nonconformance

- Annual EMS training conducted during the month of November 2009; seven out of the 52 employees did not receive training.
- Two environmental targets were not met or modified.
 - EHS Management Program Task
 - Install solar Biosolids dryer pilot facility
 - Proposed date 6/30/2010 has not been updated or modified
 - EHS Management Program Task
 - Operate modifications
 - Proposed date 12/31/2009 has not been updated or modified

E. Opportunity for Improvement

- Plant water tower was in service prior to completion of the management of change, because the water tower was only one component of a much larger project, which is still in construction.
 - *Recommendation: When projects involve multiple plant processes, under one contract the management of change should be completed before each separate process is brought on line.*
- Although the EHSS-MS Management Plan is append to the current EHSS-MS Manual, when printed separately it is difficult to identify the current copy.
 - *Recommendation: include a revision number and Date in the footer on each page of the EHSS-MS Management Plan.*

- In reference to the proposed date on the EHSS-MS Management Plan, when adjusted or modified the date is simply changed and the original date gets lost in the shuffle.
- *Recommendation: Consider reformatting the The EHSS-MS Management Plan to include a column listing a modified date, which would allow the proposed date to be set in stone, and adjusting the modified date when required. This would allow better documentation of changes.*
- Several items documented within the EHSS-MS Manual are outdated i.e....
 - The letter dated 19 December 2005, written by the Public Works Director does not reflect "Sustainability".
 - The Complaint/Inquiry Response Form on pg 68 is out dated.
 - Appendix E, Minimum Expected Qualifications, Training Matrix, and Appendix G
- *Recommendation: reviewing the entire, EHSS-MS Manual for accuracy/current material.*

APPENDICES

List of Participants

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

<u>Name</u>	<u>Position</u>	<u>Organization</u>
Jim Newton	Environmental Program Manager	KCRWTF
Keith Powell	Assistant Director of Public Works	KCRWTF
Mari Fabres	Secretary	KCRWTF
Bill Vincent	Operations Supervisor/Internal Auditor	KCRWTF
William Woodall	Electrician III/Internal Auditor	KCRWTF
Dave Whitney	Biosolids Technician III/Internal Auditor	KCRWTF

List of Documents & Records Reviewed

- Kent County Regional Wastewater Facility, Environmental, Health and Safety Management System (EHSS-MS) Manual Revision 04/16/2010
- Internal Audit Report, November 6, 2009
- KEMA Corrective Action Audit Report, April 27, 2010
- EHSS-MS Management Plan
- Core Team Meeting Record, September 16, 2010
- Safety Meeting Minutes, September 18, 2010

END OF REPORT