

# National Biosolids Partnership Biosolids EMS Interim Audit Report (Final)

# City of Los Angeles Bureau of Sanitation, Los Angeles, California

Audit Report Date: October 5, 2006

# **Audit Conducted By:**

KEMA Quality, Inc. - Chalfont, PA

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Mr. Ralph Eschborn, Biosolids Auditor

<u>Audit Dates:</u> August 17 - 21, 2006

Report Written By: Jon Shaver, Biosolids EMS Lead Auditor

Approved By: KEMA-Registered Quality, Inc.



# City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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# **Table of Contents**

1.	SUMMARY		
	A.	Audit Scope and Methodology	3
	B.	Summary of Audit Findings	4
	C.	Verification Statement	5
	D.	Agreements	5
	E.	Appeals	5
2.	AUDIT DETAILS		6
	A.	Agency Details	6
	B.	Reference Materials	6
	C.	Definitions of Audit Findings & Required Corrective Action	7
3.	AUDIT RESULTS		
	A.	EMS Changes	8
	B.	EMS Outcomes	8
	C.	Summary of Audit Results by EMS Element	9
	D.	Opportunities for Improvement	10
4.	DE	TAILED AUDIT RESULTS	12
	A.	Review of EMS Changes	12
	B.	Review of Open Nonconformances	12
	C.	Audit – Compliance Process	13
	D.	Audit – Corrective and Preventive Action Process	14
	E.	Audit –Engineering & Design Process	14
	F.	Audit – Goals and Objectives Process	15
	G.	Audit – Internal EMS Audit Process	16
	Н.	Audit – EMS Planning Process	
	I.	Audit – Management Involvement / Review Process	17
	J.	Audit – Operational Control - Wastewater Treatment & Solids Collection Pro-	
	K.	Audit – Public Participation & Communication Process	18
APPE	ENDIC	CES	20
	List	t of Participants	20
	List	t of Documents & Records Reviewed	21



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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#### 1. SUMMARY

KEMA-Registered Quality Inc. (KEMA) conducted an independent audit of the environmental management system (EMS) being used by City of Los Angeles Bureau of Sanitation (LA City) in managing its biosolids program. This audit was performed August 17 to 21, 2006 at the request of the National Biosolids Partnership and was interim audit #3 following verification of the LA City biosolids EMS on September 4, 2003.

The purposes of this audit were to:

- Verify that the biosolids EMS being used by LA City conforms to requirements of the National Biosolids Partnership (NBP) Environmental Management System for Biosolids, comprised of 17 EMS Elements
- Confirm that the LA City biosolids EMS is functioning as intended, with practices and procedures being performed as documented.
- Determine if LA City is achieving desired outcomes through the use of their biosolids EMS.

# A. Audit Scope and Methodology

The LA City Biosolids EMS encompasses pretreatment, biosolids stabilization, storage and transportation and end use / disposition, with special attention to practices and management activities that directly support biosolids-related operations, processes, and activities.

The scope of this audit included the following. This scope is consistent with NBP requirements for biosolids EMS interim audits and the overall audit program agreed to by KEMA and LA City.

- 1. Verification of open nonconformances from previous KEMA audits (August 2004)
- 2. Review of significant changes in the LA City biosolids program
- 3. Audits of the following processes
  - Wastewater Pretreatment & Solids Collection
  - Compliance (with legal & other requirements)
  - Corrective and Preventive Action
  - Goals and Objectives
  - Internal Audit
  - Management Review
  - Process Engineering
  - Public Participation & Communication
- 4. Examination of EMS Outcomes (regulatory compliance, interested party relations, environmental performance, quality practices)



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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This audit was performed by qualified auditors following NBP Auditor Guidance (March 2006) and KEMA's Biosolids EMS Audit Planning Guide. Using sampling techniques, the auditor observed practices in place, interviewed key persons and reviewed pertinent documents and records to assess the systematic performance of each process audited. Representative interested parties were interviewed, as agreed and arranged by LA City.

# **B.** Summary of Audit Findings

#### **EMS Strengths**

KEMA noted the following strengths in the LA City biosolids program.

- It is evident that LA City is committed to proactive communications with interested parties and understands the value of those communications in helping to improve its biosolids program.
- The process for identifying and tracking compliance requirements is well defined and contributing to effective compliance with regulatory and permit stipulations throughout the biosolids program.
- Operations personnel are well aware of the biosolids EMS and its requirements.
- Use of the "Corrective Action Process" by the Environmental Monitoring Division to address a compliance issue shows that personnel are starting to understand the system approach to managing biosolids activities.

#### **EMS Outcomes**

LA City's overall biosolids program is improving through the use of their EMS approach to managing this program. Recent outcomes are summarized below and detailed in Section 2 of this report.

- Performance against Kern County Ballot Initiative requirements is tracked to demonstrate compliance with potential permits and regulations.
- Mercury levels are being controlled well below regulatory limits.
- Projects, such as the Terminal Island Renewable Energy project, are able to address interested party concerns being identified at an early stage through the Bureau's Communications Program.
- Increasingly positive feedback is being received from the public about the Bureau's biosolids communication efforts.
- Hyperion's Lab has achieved Arizona certification (ELAP) ensuring that acceptable compliance tests can be conducted.
- Development of the Biosolids Strategic Plan provides an effective basis for moving forward with biosolids options.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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#### Nonconformances

During this audit, KEMA found no major nonconformances and four (4) minor nonconformances with respect to the audit criteria. These nonconformances are described in the "Detailed Audit Results" section of this report.

#### Opportunities for Improvement

KEMA noted several opportunities for improvement in the LA City biosolids EMS. These opportunities are described in each applicable detailed audit report.

#### C. Verification Statement

Based on the results of this audit, KEMA has verified the management system for LA City's biosolids program continues to meet the expectations and requirements of the National Biosolids Partnership Biosolids EMS Program. Certification can continue.

# D. Agreements

LA City has agreed to prepare written plans for correcting the nonconformances identified during this audit and to send these plans to KEMA's Lead Auditor by September 21, 2006. KEMA will review these plans for consistency with NBP requirements and, if acceptable, approve them for implementation in correcting the nonconformances. LA City will implement the approved plans in a timely manner and will review the corrections internally within 6 months. The effectiveness of actions taken to correct nonconformances will be reviewed during the next assigned third party audit. LA City will arrange for interim audit #4 to occur before August 31, 2007. KEMA has agreed that LA City has the choice of using a third party audit interim or substitute an internal audit for interim audit #4. An audit plan for all 4 interim audits has been agreed upon by LA City and KEMA.

#### E. 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. Anyone who may need help in understanding the appeals process should contact the National Biosolids Partnership staff, Mr. Eugene DeMichele at 703-684-2438, or send an e-mail to: edemichele@wef.org.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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#### 2. AUDIT DETAILS

# A. Agency Details

Agency Name, Location: City of Los Angeles Bureau of Sanitation, Los Angeles, California

Number of Employees: 2800

Biosolids Production Location(s): Hyperion Treatment Plant, Terminal Island Treatment Plant

Gallons of Wastewater Treated: Hyperion Treatment Plant = 330 million gallons per day

Terminal Island Treatment Plant = 29 million gallons per day

Tons of Biosolids Produced: Hyperion Treatment Plant = 650 wet tons per day

Terminal Island Treatment Plant = 50 wet tones per day

#### Biosolids use / Disposition Sites Audited

None

#### **Contractors Audited**

None

#### Third Parties Interviewed During Audit

Ms. Lauren Fondahl, EPA Region 9 (by telephone)

Mr. Doug Patteson, California Regional Water Quality Board (telephone)

#### **Audit Team**

The National Biosolids Partnership assigned KEMA to perform this audit on their behalf. Mr. Jon Shaver led and performed audit for KEMA as Biosolids EMS Lead Auditor and Biosolids Auditor. Mr. Ralph Eschborn assisted, as necessary. Both Mr. Shaver and Mr. Eschborn are qualified for their auditor roles through certification by the National Biosolids Partnership.

KEMA asserts that the relationship that our firm and auditors have with LA City is completely independent and meets criteria established by the National Biosolids Partnership for Third Party Audit Companies and Third Party Auditors.

# **B.** Reference Materials

The following documents were used as references for this audit:

City of Los Angeles Bureau of Sanitation Biosolids EMS Manual (March 2006)

National Biosolids Partnership "EMS for Biosolids" standard (May 2002)

National Biosolids Partnership Biosolids EMS Auditor Guidance (March 2006)

National Biosolids Partnership Code of Good Practice

National Biosolids Partnership Manual of Good Practice



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

# C. Definitions of Audit Findings & Required Corrective Action

<u>Major Nonconformance</u> – a serious omission from requirements and/or other departure that represents, or could cause, a systemic failure. Major nonconformances must be corrected within 90 days for verification to proceed.

<u>Minor Nonconformance</u> – an isolated departure from requirements that does not represent a systemic failure. Minor nonconformances require timely and effective correction and verification by the Third Party Auditor.

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



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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#### 3. AUDIT RESULTS

# A. EMS Changes

LA City did not identify any changes in their EMS that they felt significantly affected the EMS or critical control points. KEMA reviewed changes in organization structure and responsibilities and changes made in the LA City EMS documentation and determined that these changes do not require any additional audits not already covered by the Interim Audit Plan.

#### B. EMS Outcomes

KEMA examined the outcomes being achieved by LA City through the use of an environmental management system in managing their biosolids program. The results are summarized below. It is evident that many of these outcomes influence performance in more than one area.

#### Regulatory Compliance

Tracking performance against requirements related to the Kern County Ballot Initiative enabled the Bureau to maintain and demonstrate full compliance with potential permits and regulations.

#### **Environmental Performance**

The program for permitting dental offices for mercury release has enabled control of mercury in solids (far below regulatory limits).

#### **Interested Party Relations**

The external Communications Program has matured to a level that enable early identification of interested party concerns and addressing these concerns early in a project (e.g. Terminal Island Renewable Energy project)

Feedback received from the public about Bureau biosolids communications is consistently positive and interest is increasing. This program provides a useful tool for correctly describing LA City's programs to the public.

# **Quality Practices**

The Hyperion Lab has achieved Arizona certification (ELAP) ensuring that compliance tests will be conducted.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

# C. Summary of Audit Results by EMS Element

The following summarizes the results of this audit related to the 17 EMS Elements. Details of the process audits are described in Section 4 of this report.

EMO E		EMS Status		
	EMS Element	(@ 8/21/06)	Nonconformances	
1.	Documentation of EMS for Biosolids	Conforms	None	
2.	Biosolids Management Policy	Conforms	None	
3.	Identification of Critical Control Points	Conforms	None	
4.	Legal and Other Requirements	Conforms	None	
5.	Goals and Objectives for Continual Improvement	Minor Nonconformance	Minor Nonconformance 06-01E The basis for determining priorities assigned to biosolids objectives is not defined.	
6.	Public Participation in Planning	Conforms	None	
7.	Roles and Responsibilities	Conforms	None	
8.	Training	Conforms	None	
9.	Communication	Conforms	None	
10.	Operational Control of Critical Control Points	Minor Nonconformance	Minor Nonconformance 06-02E It is not clear how the development of operational controls considers best management practices, particularly the critical control points recommended in the National Manual of Good Practice.	
11.	Emergency Preparedness and Response	Conforms	None	
12.	EMS Documentation, Document Control and Recordkeeping	Conforms	None	
13.	Monitoring and Measurement	Conforms	None	



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

EMS Element	EMS Status (@ 8/21/06)	Nonconformances
14. Nonconformances: Preventive and Corrective Action	Minor Nonconformance	Minor Nonconformance 06-03E The procedure for Nonconformance: Preventative & Corrective Action (El 14) does not reflect the actual practices used to identify need for corrections, investigate and determine causes and verify the effectiveness of action taken.
15. Biosolids Program Periodic Performance Report	Conforms	None
16. Internal EMS Audits	Minor Nonconformance	Minor Nonconformance 06-04E The internal audit used as biosolids EMS Interim Audit 2 does not provide sufficient clear information about the effectiveness of the goals and objectives process or the communications program.
17. Periodic Management Review of Performance	Conforms	None

KEMA's Lead Auditor verified that the above minor nonconformances are not related and the existence of multiple nonconformances does not represent a systemic problem.

# D. Opportunities for Improvement

The following opportunities for improvement were identified during this audit. There is no obligation to correct these observations.

#### **EMS Documentation**

- The concept that the biosolids EMS is a description of methods used to manage the biosolids program could be more prominent in the description of the EMS and communications about it.
- More detail describing how the EMS Coordinator carries out responsibilities to implement and maintain the EMS could help in understanding how this is done, particularly for ensuring information is obtained to help continually improve the biosolids program.
- The procedure for monitoring compliance with CWEA requirements could be clarified.

# Goals & Objectives

 Consider how the overall Bureau strategic goals and objectives process fits into the process for establishing biosolids goals & objectives.

#### Communications



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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- The extensive use of the LA City Communications Program in recent months provides an
  opportunity to assess the effectiveness of that program to help in continually improving it.
- A contact person should be noted in the Biosolids Program Periodic Performance Reports, particularly for monitoring / measurement information.

#### Critical Control Points & Operational Control

- The justification for excluding wastewater treatment and solids collection from the value chain within the biosolids program could be documented in the EMS Documentation to ensure ongoing understanding and, possibly, to make changes at a later date.
- The actual environmental impact of the activities stated as "Potential Environmental Impacts" in the Critical Control Points Table (El 3) could be more clearly described.

#### **Emergency Preparedness**

 An exercise to test the effectiveness of the Fire Prevention portion of the Griffith Park Emergency Contingency Plan could help in ensuring the plan / procedures are suitable.

# **Corrective & Preventive Action**

- The difference between regulatory noncompliances and nonconformances should be distinguished in EMS El 14 (Nonconformance: Preventative & Corrective Action)
- The "Nonconformance: Preventative & Corrective Action" form and process could be more acceptable and useful if the name was changed to "Corrective Action" and the form was used for correcting more than just audit results.
- Causes determined for events requiring preventive & corrective action could be less elaborate and better describe root causes.

#### Management Review

 Assessments of how well the various management system processes are working can help in determining and improving overall program effectiveness.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

#### 4. DETAILED AUDIT RESULTS

The NBP Auditor Guidance (March 2006) was used as a guide in performing each of the audits described below. The audits of each process covered all applicable requirements of the EMS Elements.

#### A. Review of EMS Changes

LA City has implemented the following changes related to the use of its biosolids EMS since the previous KEMA audit (September 2004).

- The top management organization structure with responsibility for the treatment plants and the biosolids program has changed, however the nature of responsibilities and authorities has not changed.
- The identity of the individual with EMS Coordinator responsibilities has changed. The responsibilities for the position have not changed.
- Some modifications were made for clarity in the LA City EMS Manual. These changes do not represent significant changes in EMS practices or procedures.

KEMA determined that the changes noted above do not require any audits beyond the scope of audits planned in the Audit Program agreed between LA City and KEMA.

#### **Audit Results**

The EMS changes process was found to conform to applicable requirements of the EMS for Biosolids standard and NBP expectations.

# **Opportunities**

 An exercise to test the effectiveness of the Fire Prevention portion of the Griffith Park Emergency Contingency Plan could help in ensuring the plan / procedures are suitable.

#### **B.** Review of Open Nonconformances

KEMA auditors reviewed corrective action taken in response to the following nonconformances that remained open from the previous KEMA Third Party Audit conducted in August 2004.

Minor Nonconformance # 04-01E Critical control points that have been identified by LA City (EMS Manual Elements 3 and 13) are not consistent with the NBP Manual of Good Practice (Appendix F), particularly in pretreatment, land application and sale of unregulated product areas. These inconsistencies could lead to ineffective management of environmental impacts and operational controls.

Corrective Action Review of corrective action taken by LA City to resolve this nonconformance determined that their operational controls for the areas of concern (and other



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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biosolids management areas) include reference to applicable critical control points that are consistent with the National Manual of Good Practice. This nonconformance is now closed.

<u>Minor Nonconformance # 04-02E</u> The RBM contractor Site Maintenance and Management Plan does not contain the contractor's training program, is incomplete in addressing communications responsibilities assigned by LA City and does not identify documents that require control or describe how they are controlled.

Corrective Action Review of corrective action taken by LA City to resolve this nonconformance determined that the contractor's "Site Maintenance and Management Plan" has been revised to reference the RBM training requirements, identifies controlled documents, contains document control procedures, and requirements for external communications made on behalf of LA City. This nonconformance is now closed.

<u>Minor Nonconformance # 04-03E</u> Emergency preparedness procedures in the Griffith Park Policies and Procedures Manual are incomplete and do not assure effective response to site-specific emergencies and the Division Emergency Action and Fire Response Plan does not appear to be reviewed regularly.

Corrective Action Review of corrective action taken by LA City to resolve this nonconformance determined that the Emergency Action and Fire Response Plan for their Griffith Park composting operations has been revised to ensure response to site-specific emergencies and now the plans include review requirements and have been reviewed in the past year. This nonconformance is now closed. [

<u>Minor Nonconformance # 04-04E</u> Internal audit reports do not state performance relative to biosolids goals and objectives.

Corrective Action Review of corrective action taken by LA City to resolve this nonconformance determined that the internal audit report done in May 2005 referenced performance in achieving biosolids goals and objectives. This nonconformance is now closed.

#### C. Audit – Compliance Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, particularly Elements 4 & 13.

#### **Process Description**

The Regulatory Affairs Division monitors regulations and permits that apply to the biosolids program and advise and technically assist Operations concerning these requirements. Qualified Operators monitor operating data daily to verify compliance, with lab testing of samples to confirm quality requirements are met. The Hyperion Lab has achieved Arizona certification. Records of analysis data and operating parameters are maintained on the internal BEDRTS server.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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#### **Audit Results**

This process was found to conform to applicable requirements of the EMS for Biosolids standard and NBP expectations.

#### Opportunities

None

#### D. Audit - Corrective and Preventive Action Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, including Element 14.

# **Process Description**

The EMS "Corrective and Preventative Action" procedure is intended to address any issues that impact biosolids management, including regulatory noncompliances, significant deviations from required operational controls and deviations from the biosolids policy. The process is mostly used for correcting nonconformances found during audits, but it is starting to be used for other issues by Division EMS Reps. An investigation team is assigned to investigate causes of nonconformances and determine appropriate corrective action. The Biosolids Action Team approves the actions, responsibilities and timing. Corrective actions are logged and tracked on the BEDRTS system. Corrective action is also taken in response to justified complaints from the public using a different system and is handled in the same manner.

# **Audit Results**

This process was found to conform to applicable requirements of the EMS Elements and meet NBP expectations.

#### **Opportunities**

- The difference between regulatory noncompliances and nonconformances should be distinguished in EMS EI 14 (Nonconformance: Preventative & Corrective Action)
- The "Nonconformance: Preventative & Corrective Action" form and process could be more acceptable and useful if the name was changed to "Corrective Action" and the form was used for correcting more than just audit results.
- Causes determined for events requiring preventive & corrective action could be less elaborate and better describe root causes.

# E. Audit - Engineering & Design Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, including Elements 3, 10 & 13.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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#### **Process Description**

Significant engineering projects are managed by the Environmental Engineering Division (Bureau of Engineering). A Project Review Committee, including the Bureau of Sanitation Assistant Director, pre-reviews projects to ensure consistency with biosolids policy, strategic plans & goals and that sufficient resources are available. The project review process proceeds from concept to capitalization, design, and review before a design is developed. The Board of Public Works (including public input) reviews and approves the final design. The Biosolids Action Team monitors construction / installation and startup for consistency with biosolids program principles. Environmental impacts are considered in each design step and Process Engineering provides input into the design.

#### **Audit Results**

This process was found to conform to applicable requirements of the EMS Elements and meet NBP expectations.

#### **Opportunities**

None

# F. Audit – Goals and Objectives Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, including Elements 5 & 13.

# **Process Description**

Bureau of Sanitation management views the commitments made in their Biosolids Policy as the goals for their biosolids program. These apply to all Divisions. Each Division prepares its annual objectives, including some related to biosolids, with action plans discussed at Biosolids Action Team meetings and posted on BEDRTS so all Divisions are aware of all objectives and plans. Progress in achieving objectives is monitored by the responsible Division and discussed at Biosolids Action Team meetings and a "scorecard" approach is used to measure performance in achieving objectives. Most (not all) objectives for 2005/2006 fiscal year were successfully accomplished. Some are still in progress and carried over to the current year.

#### **Audit Results**

This process was found to conform to applicable requirements of the EMS Elements and meet NBP expectations.

#### Opportunities

 Consider how the overall Bureau strategic goals and objectives process fits into the process for establishing biosolids goals & objectives.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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#### G. Audit - Internal EMS Audit Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, including Elements 14 & 16.

# **Process Description**

The most recent official internal audit was performed in May 2005 and used as interim audit (#2), meeting NBP Biosolids EMS Program requirements. The audit was consistent with LA City's biosolids EMS requirements. Division audits are conducted annually. Audit results and any needed corrective actions, responsibilities and timing are determined at Biosolids Advisory Team meetings.

#### **Audit Results**

This process was found to conform to applicable requirements of the EMS Elements and meet NBP expectations, except as noted below.

Minor Nonconformance 06-04E The internal audit used as biosolids EMS Interim Audit 2 does not provide sufficient information about the effectiveness of the goals and objectives process or the communications program.

#### **Opportunities**

 Using internal audits to provide assessments of how well the various management system processes are working can help in determining and improving overall program effectiveness.

# **LA City Comments**

LA City made the following comment regarding their internal audit process:

"EMS internal audit items are discussed bi-monthly in BAT and during management review meetings which are held before and after internal and external audits. Furthermore, division internal audits are held annually. We will carry our full internal program audits when requesting to substitute as an interim audit."

#### H. Audit – EMS Planning Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, including Elements 1, 2, 6, 7 & 17.

# **Process Description**

The overall purpose of the LA City Biosolids Program (and EMS) is to help achieve LA City's goals for operating in an "environmentally sound", "socially acceptable" and "cost-effective manner". Management recognizes that an EMS approach will help in doing that and that certification within the NBP program will help demonstrate their commitment and performance. The Assistant Director recognizes her ultimate responsibility for the performance of the biosolids program and the EMS. Each Division has been assigned an EMS Rep to help in implementing and monitoring the EMS in



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

their Division. An overall EMS Coordinator has been assigned by the Assistant Director. A Biosolids Action Team, including all Division managers with biosolids responsibilities, meets bimonthly to discuss EMS and biosolids program performance. The EMS Coordinator is aware of public issues and attends Biosolids Action Team meetings to present those issues as part of the planning process.

#### **Audit Results**

This process was found to conform to applicable requirements of the EMS Elements and meet NBP expectations.

#### **Opportunities**

- The concept that the biosolids EMS is a description of methods used to manage the biosolids program could be more prominent in the description of the EMS and communications about it.
- More detail describing how the EMS Coordinator carries out responsibilities to implement and maintain the EMS could help in understanding how this is done, particularly for ensuring information is obtained to help continually improve the biosolids program.
- The procedure for monitoring compliance with CWEA requirements could be clarified.

# I. Audit - Management Involvement / Review Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, including Elements 2, 5, 7 & 17.

#### **Process Description**

A Biosolids Action Team, including each Division Manager with biosolids responsibilities and the EMS Coordinator, meets bi-monthly to discuss ongoing matters related to the biosolids program and EMS. Semiannually that team conducts a more formal "management review" to discuss the effectiveness of the biosolids EMS, including public acceptance, environmental and cost concerns and to prepare the annual performance report. The Biosolids Action Team also discusses goals and how well the biosolids program is meeting those that apply.

#### **Audit Results**

This process was found to conform to applicable requirements of the EMS Elements and meet NBP expectations.

#### **Opportunities**

 LA City's management reviews could be considered as a process that includes bi-monthly and semi-annual Biosolids Action Team meetings, executive management meetings and Board of Director presentations / discussions to enable these reviews to have more interaction.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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#### J. Audit - Operational Control - Wastewater Treatment & Solids Collection Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, including Elements 3, 10 & 13.

# **Process Description**

Effluent from the primary treatment process is aerated in 4 reactors and aerobic bacteria introduced. The mixture is sent to clarifiers and the returned material is either sent back to the reactors or thickened and dewatered and sent to digesters (stabilization process). LA City has determined that this process does not have undesirable environmental impacts, regulatory compliance, biosolids quality or public acceptance issues that cannot be controlled downstream and so have excluded the process from their biosolids value chain. Operators admit that regulatory compliance requirements do exist (such as air quality permits and NPDES permits) however these are considered to apply to the liquid side of the plant are addressed and monitored accordingly. A written justification for the exclusion of wastewater treatment as a biosolids value chain has been prepared and approved by the Assistant Director responsible for the biosolids program.

#### **Audit Results**

This process was found to conform to applicable requirements of the EMS Elements and meet NBP expectations.

#### **Opportunities**

- The justification for excluding wastewater treatment and solids collection from the value chain within the biosolids program could be documented in the EMS Documentation to ensure ongoing understanding and, possibly, to make changes at a later date.
- The actual environmental impact of the activities stated as "Potential Environmental Impacts" in the Critical Control Points Table (El 3) could be more clearly described.

#### K. Audit – Public Participation & Communication Process

<u>Applicable EMS Elements</u> – Conformance of LA City's biosolids program with applicable requirements of the NBP EMS Elements was assessed, including Elements 6 & 9.

#### **Process Description**

Internal communication about the biosolids program and EMS occurs through regular e-mails from the EMS Coordinator and posting of Biosolids Action Team meeting minutes. Employees receive training to acquaint them with the EMS concepts. The EMS is also discussed at monthly staff meetings.

External communication about the EMS occurs through e-mails from the EMS Coordinator to an active list of interested parties. Presentations about biosolids program performance are done at Board of Public Works meetings that are open to the public. An annual Biosolids Program



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

Performance Report is available to the public and sent to interested parties. Information about the LA City biosolids program is also provided during plant tours that occur frequently.

Public perceptions for use in planning the EMS and developing biosolids goals and objectives are obtained through participation in community associations (such as El Segundo Citizens Committee and the Griffith Park Resource Committee) and public Board of Public Works meetings. An interactive website (approximately 5000 "hits" per month) is available for monitoring public comments and communicating about biosolids matters. Public comments received, including complaints on a public "hot line" at Hyperion are monitored and the EMS Coordinator tracks responses to those comments.

#### **Audit Results**

This process was found to conform to applicable requirements of the EMS Elements and meet NBP expectations.

#### **Opportunities**

- The extensive use of the LA City Communications Program in recent months provides an opportunity to assess the effectiveness of that program to help in continually improving it.
- A contact person should be noted in the Biosolids Program Periodic Performance Reports, particularly for monitoring / measurement information.



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

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# **APPENDICES**

# **List of Participants**

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

Name	Position	Organization
Mohammad Abdelaal	Senior Operator	Bureau of Sanitation
Jeff Beller	Laboratory Manager	Bureau of Sanitation
Doug Bohlmann	Shift Superintendent 2	Bureau of Sanitation
Nancy Carr-Jones	Tour Guide	Bureau of Sanitation
Steve Fan	Plant Manager – HTP	Bureau of Sanitation
Steve Fortune	Div Mgr – SRECD	Bureau of Sanitation
Diane Gilbert Jones	San Engr Assoc IV	Bureau of Sanitation
Derrick Lee	EMS Coordinator	Bureau of Sanitation
Ernesto Libuano	San Engr Assoc III	Bureau of Sanitation
Omar Moghaddam	Div Mgr -RAD	Bureau of Sanitation
Traci Minamide	Asst Director	Bureau of Sanitation
Mike Ruiz	Shift Superintendent 1	Bureau of Sanitation
Rita Robinson	Director, Bureau of Sanitation	Bureau of Sanitation
Jordan Siplon	Shift Superintendent 1	Bureau of Sanitation
Chuck Turhollow	Div Mgr - HRDD	Bureau of Sanitation
Sumitra Roy-Burman	Lab Section Manager	Bureau of Sanitation
Interested Parties		
Lauren Fondahl	Regional Biosolids Regulator	USEPA
Doug Patteson	3	California Regional Water Board
Oh a a m va ma		
Observers	Citizon	
Wendy Wert	Citizen	Orange County Conitation District
Deirdre Bingman	Observer	Orange County Sanitation District



City of Los Angeles Bureau of Sanitation Interim Audit #3, August 17 - 21, 2006

#### **List of Documents & Records Reviewed**

2004 Interim Audit nonconformance action plan schedule & responsibility

2004 Internal audit recommendations - continual improvement (07/29/04)

2005 Biosolids EMS Internal Audit Report (June 6 05)

2005/2006 Biosolids Management Objectives (6/22/06 status)

2006/2007 Biosolids Management Objectives (7/17/06 status)

Action plan for 2005 / 2006 objectives

Approval of RBM's site plan (2/9/05)

Biosolids Action Team Management Review Meeting Summary 4/13/06

Biosolids Action Team Management Review Meeting Summary 9/20/04

Biosolids Action Team Mtg agenda 6/29/06

Biosolids Action Team Mtg summary 6/29/06

Biosolids communication brochures (various)

Biosolids EMS Internal Audit Findings - 5/27/05

Biosolids Policy Statement (12/10/04)

Biosolids Program Management Monthly Report (January 2006)

City of LA Biosolids EMS brochure

City of LA Biosolids EMS Performance Report (3/06)

City of LA Green Acres Fact Sheet

Document Control Page - Emergency Action & Fire Prevention Plans

LA City EMS Manual - Element 10 - Operational Control of Critical Control Points (rev 5/11/05)

LA City EMS Manual - Element 14 - Nonconformances: Preventative & Corrective Action

LA City EMS Manual - Element 16 - Internal EMS Audits - Audit Frequency & Methodology

LA City EMS Manual - Element 3 - Critical Control points - Summary (rev 5/11/06)

LA City EMS Manual - Element 3 Critical Control Points Chart (rev 9/30/04, reviewed 4/05)

LA City EMS Manual - Element 6 - Public Participation in Planning

LA City EMS Manual - Element 9 - Communications

Emergency Action & Fire Prevention Plans for Solids Resources

EMS Manual el 7 - EMS responsibilities

Exclusion Summary 12/13/04

Griffith Park Emergency Action & Fire Prevention Plan (2/28/06)

HRD Division EMS Checklist

Hyperion Pipeline newsletter (winter 2005-6)

Hyperion Treatment Plan - Flow sheet

Internal EMD assessment of biosolids (June 06)

Hyperion lab analysis and assessment of biosolids (June 06)

Letter from EMD to HTP re fecal coliform results

NC05-01I (from 2005 internal audit) + Corrective Action Tracking Log (1/26/06)

Nonconformance Log – Management Review (06/17/04)

Nonconformances: Preventative & Corrective Action Report 05-04I 6/2/05

Nonconformances: Preventative & Corrective Action Report 05-04I 6/24/05

Preventive & Corrective Action – fecal sampling issue (12/6/05)

RBM Site Maintenance & Management Plan (April 2006)

Regulatory Alert Fact Sheet

SOP TSF 001 - Procedure for Handling Complaints

SOPs (various)

E-mails to interested parties (various)

#### **END OF REPORT**