

# City of Los Angeles 2010 Biosolids EMS Interim Audit Summary



The City of Los Angeles' wastewater system serves more than four million people in Los Angeles and 27 cities that contract for this public works service. The system is comprised of more than 6,500 miles of sewer pipelines and four wastewater treatment and water reclamation plants that can process more than 550 million gallons of flow each day citywide. The City processes, recycles and renews 147 billion gallons of this wastewater annually into 24 billion gallons of recycled water for beneficial water conservation purposes and 240 thousand tons of biosolids, a treated commodity. Biosolids are nutrient-rich organic material resulting from the treatment of domestic sewage at wastewater treatment facilities and are recycled as a soil amendment and fertilizer.

The City's biosolids management program is nationally recognized and has received the highest achievement (Platinum level) for biosolids management and environmental stewardship from the National Biosolids Partnership (NBP) that includes the National Association of Clean Water Agencies (NACWA), Water Environment Federation (WEF), and U.S. Environmental Protection Agency (EPA). For more than fifteen years the City of Los Angeles has maintained an environmentally sound biosolids land application program that meets and exceeds all enforceable local, state and federal regulations. For more than twenty years, the city has beneficially reused 100% of all biosolids produced.

The City completed its EMS interim audit from August 9-12, 2010. The City requested through the NBP to hire an external third party audit company, KEMA, to conduct its audit. The audit results were reported to the Bureau of Sanitation management, the NBP, and interested parties.

**WHY:** The goal of the audit is to ensure the City of Los Angeles' Biosolids EMS conforms to the requirements of the NBP EMS Program.

**WHAT:** The "Year 2" interim audit of the City of Los Angeles' Biosolids Environmental Management System (EMS) and biosolids program. The City requested an external third party auditor to conduct the interim audit and the National Biosolids Partnership (NBP) approved the request. The scope of the interim audit is consistent with NBP requirements for the biosolids EMS interim audit and the overall audit program agreed to by independent auditor, KEMA, and the City.

**WHERE:** Audit was conducted of the Hyperion Treatment Plant, Griffith Park Compost Facility, and the Pretreatment Program.

**WHEN:** August 9-12, 2010

**WHO:** An external third party audit company, KEMA, audited the City of Los Angeles.

**RESULTS:** Continued certification under NBP National Biosolids EMS program through September 2011. Five (5) minor non-conformances require corrective action and the City of Los Angeles will consider the suggested opportunities for improvement.

**SCOPE:** Reviews are performed to assess the overall program effectiveness of the EMS processes. Audits are conducted to verify conformance with NBP EMS requirements. The techniques used to conduct the audit are interviewing, observing, reviewing documents and records, and transaction testing. The scope included the following:

1. Verification of open nonconformances from previous third party audit (August 2008)
2. Examination of EMS outcomes (regulatory compliance, interested party relations, environmental performance, quality practices)
3. Review of Significant EMS changes, EMS manual changes, and Management Involvement
4. Audit of Biosolids Production- Biosolids Preparation (including wastewater treatment, solids stabilization, conditioning & handling – Hyperion; Biosolids Loading & Transportation – Hyperion; Biosolids Use & Disposition – Griffith Park; Control of Contractors; Corrective and Preventive Action; Critical Control Points & Operational Controls; Document Control & Recordkeeping; Emergency Preparedness; Communication Program; Pretreatment; Process Engineering; Goals & Objectives; Internal EMS Audits; and Management Involvement.



**Griffith Park Composting Facility**

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## AUDIT FINDINGS:

### EMS Strengths

- The process for setting objectives is well established (Bureau goals, Division objectives, BAT review and site-wide objectives).
- An effective closed loop corrective action process is used in IWMD for correcting problems resulting in NOVs.
- The Bureau public outreach and communication program is effective and has resulted in positive feedback and recognition from several sources.

### EMS Outcomes

#### Regulatory Compliance

- Record of 100% regulatory compliance continues.
- Programs developed at IWMD for permitting dental offices and for identifying and controlling pollutants of emerging concern are leading edge best practices.

#### Environmental Performance

- Diversification of beneficial use options for LA City biosolids continues including potential for using greater than 100% of biosolids currently produced.
- The TIRE demonstration project will result in lower greenhouse gas emissions (sequestered CO<sub>2</sub>) and increased energy generation and continuing diversification of beneficial uses.

#### Interested Party Relations

- The Bureau of Sanitation has received awards in the past two years from CASA, CWEA, NACWA, Harvard School and is a finalist within the National League of Cities.
- The Bureau of Sanitation's public outreach program continues to expand and receive positive feedback, leading to increased confidence from city officials and trust from citizens.

#### Quality Practices

- Continuing improvement in Class A pathogen equivalency production methods will lead to reduced energy use and increased plant capacity.
- The development of a long term biosolids management plan, including input from citizen groups, will lead to a more sustainable biosolids program.
- The working relationship with contractors continues to improve as evidenced by voluntary cooperation on fees in response to current economic conditions.

### EMS Nonconformances and Continual Improvements

The 2010 interim audit found no major nonconformance, five (5) minor nonconformances, and twelve (12) opportunities for improvement.

- 10-01E- Poor housekeeping was evident in Digester D battery, centrifuge area and truck loading. This is not consistent with the commitment to Quality Practices included in commitment to the Code of good Practice.
- 10-02E – Five of six objectives planned for 2010/11 are not measurable, except as a “yes/no” accomplishment within the prescribed timing.
- 10-03E – At the Griffith Park Composting Facility, it is uncertain what steps will be taken if compost piles are found not to meet fecal and/or metal requirements and records of monitoring for compliance with US Composting council STA Program (other requirement) are not readily available.
- 10-04E - The Internal Audit conducted in May 2010 had findings, however, it is not clear what the cause of the finding is or whether corrective action has been completed effectively and on time.
- 10-05E - The management review conducted in May 2010 did not assess performance of the biosolids program against performance measures.



Hyperion Truck Loading Facility

If you would like to review the audit report, assist in addressing the findings, or have any questions please contact us at 310-648-5877 or visit [www.lacity.org/SAN/biosolidsems/index.htm](http://www.lacity.org/SAN/biosolidsems/index.htm)