

METRO WASTEWATER RECLAMATION DISTRICT

ENVIRONMENTAL MANAGEMENT SYSTEM FOR BIOSOLIDS AUDIT

Fieldwork Completed: May 5, 2008 through May 7, 2010

Management Responses Completed: May 24, 2010

DETAILED FINDINGS AND MANAGEMENT RESPONSE

A Third Party Re-verification audit of the Metro District's Environmental Management System (EMS) for Biosolids was performed from May 5, 2010 through May 7, 2010.

The National Biosolids Partnership (NBP) developed a set of 17 common elements for an EMS, and all 17 were reviewed during this audit. These elements are the standards or benchmarks by which the EMS should have been developed. Deviations from these standards or benchmarks are considered nonconformances. These nonconformances can be either major or minor depending on whether the incident is systemic or isolated. The following are the NBP's definitions for the type of nonconformance.

- Major nonconformances are defined as where “one or more of the elements in the *EMS Elements* has not been addressed or has not been addressed adequately. A major nonconformance can also occur if a number of minor nonconformances in a given activity or against a given element point to a systemic failure. Major nonconformances also exist if an element is being disregarded sufficiently during organizational operations that it is having a noticeable effect on the organization's regulatory compliance, environmental impacts, or the quality of the biosolids material being produced – there is a gap or problem that could lead to a systemic failure.”
- Minor nonconformances, “when taken by itself, does not indicate a systemic problem with the EMS. It is typically a random or isolated incident. Minor nonconformances involve discrepancies within an element of the *EMS Elements* or the organization's environmental management system that does not significantly affect the implementation of the environmental management system and commitment to conform to the *Code of Good Practice* – a systemic problem is not indicated.”

The Metro District submits management responses, with corrective and preventative actions, identified responsible persons, and targeted completion dates for minor nonconformances found during the interim audit as follows:

MINOR NONCONFORMANCE

Finding

Item 3.1 – Minor Nonconformance. “The step screens are not identified as a critical control point in the biosolids value chain. It is one of the most beneficial unit operations in biosolids processing.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Review the National Manual of Good Practice and the current critical control points and incorporate step screen process.	Director of O&M EMS Coordinator	August 15, 2010	

OPPORTUNITIES FOR IMPROVEMENT

Finding

Item 2.1 – Opportunity for Improvement. “The Biosolids Reuse Policy does not specifically include the commitment to following the principles of conduct set forth in the *Code of Good Practice*.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Consider revising the Biosolids Reuse Policy to include a sentence that the District adheres to the principles of the <i>Code of Good Practice</i>	Director of RR&R	December 31, 2010	

Finding

Item 2.1 – Opportunity for Improvement. “Consider including in the EMS procedure for *Element 2: Biosolids Management Policy* reference to the fact that the District is also committed to voluntarily programs that it has chosen to adopt, such as biosolids registration as a fertilizer with the Department of Agriculture, etc.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Identify voluntary programs the District has adopted and add them to <i>Element 2: Biosolids Management Policy</i>	EMS Coordinator	August 15, 2010	

Finding

Item 3.2 – Opportunity for Improvement. “Element 3: Biosolids Value Chain and Critical Control Points procedure contains a table identifying the value chain components and potential/actual environmental impacts. The critical control points identified as primary treatment, South Secondary Treatment, North Secondary Treatment, and Solids thickening (DAF) do not list potential or actual environmental impacts, such as public health, aquatic biota, odors, aesthetic quality, surface water quality, groundwater quality, land contamination, natural resource consumption, etc.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Review and revise <i>Element 3: Critical Control Points</i> table, <u>Wastewater Treatment & Solids Processing</u> Biosolids Value Chain section to add potential/actual environmental impacts	Director of O&M	August 15, 2010	

Finding

Item 5.2 – Opportunity for Improvement. “When evaluating goals and objectives consider the intention of the EMS relative to continual improvement. Maintaining 100% compliance with regulations does not in itself represent improvement unless the District has historically not been 100% compliant. Conducting monthly self-monitoring of constituents in biosolids does not in itself represent improvement. Also, beneficially reusing 100% of the biosolids product and maintaining 93% delivery to land application doesn’t appear to be continual improvement over the past years’ goals.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Consider the intention of continual improvement when evaluating goals and objectives for 2011-2012	EMS Coordinator EMS Workgroup Department Heads	March 31, 2011	

Finding

Item 8.1 – Opportunity for Improvement. “Biosolids management field activities could be strengthened by including the Applying Biosolids with Spreader/Applicator – Procedure to the list of required training for RR&R Field Operators”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Consider adding the <i>Applying Biosolids with Spreader/Applicator</i> procedure to required training for RR&R Field Operators	Director of RR&R	August 15, 2010	

Finding

Item 8.2 – Opportunity for Improvement. “RR&R Field Operator Tom Gerst has not yet received Defensive Driver training.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Evaluate if the Defensive Driving course currently identified as a requirement for RR&R Field Operators is relevant	Director of RR&R	August 15, 2010	
If the Defensive Driving course is determined to be required, ensure RR&R Field Operator Tom Gerst completes the training	RR&R Superintendent RR&R Operations Supervisors	December 31, 2010	
If the Defensive Driving course is determined to be required, consider adding a required completion date for RR&R Field Operators to complete training	RR&R Superintendent RR&R Operations Supervisors	December 31, 2010	

Finding

Item 11.1 – Opportunity for Improvement. “Element 11 Emergency Preparedness and Response procedure does not address emergency incidents that could occur in biosolids management associated with critical control points in biosolids value chain before the cake tower. The operation and maintenance department maintains a generic spill control procedure that includes biosolids release control and clean-up but it is not referenced in the Element 11 procedure.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Add the Spill Control procedure to the <u>Reference</u> section of the <i>Element 11: Emergency Preparedness</i> procedure	EMS Coordinator	August 15, 2010	

Finding

Item 12.2 – Opportunity for Improvement. “Consider using a system to specifically identify the most recent version changes in EMS documents.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Evaluate the need/benefit of identifying revisions in EMS documents so readers know what changes have been made	EMS Coordinator EMS Workgroup	August 15, 2010	
If it is decided that revisions need to be identified in EMS documents, consider what options there are to identify revisions that will keep documents readable	EMS Coordinator EMS Workgroup	August 15, 2010	

Finding

Item 12.2 – Opportunity for Improvement. “Consider including in the EMS Document Control procedure that it is the responsibility of each individual to use current documents, and to emphasize that only electronic documents are current.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Add language to Element 12: EMS Document Management how document control will be communicated to employees to ensure that current documents are used at all times	EMS Coordinator EMS Workgroup	August 15, 2010	

Finding

Item 14.1 – Opportunity for Improvement. “The procedure in Element 14 for managing nonconformities from internal interim audits needs to be revised to reflect current practices; for example, the section on Nonconformance Found from an Audit, paragraph 1.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Review/revise Element 14 paragraph one of the <u>Nonconformance Found from an Audit</u> section.	EMS Coordinator	August 15, 2010	

Finding

Item 16.3 – Opportunity for Improvement. “Consider including in the Management Response Document information on the identity of the lead auditor(s), qualifications, and description of roles and responsibilities of auditors, and others that may participate in, review, or be expected to act upon the audit.”

Management Response	Responsible Person(s)	Target for Completion Date	Completion Date
Include the identity of the lead auditor, qualifications, and description of roles and responsibility of auditor in the Management Response to the 2011 Interim Internal Audit.	EMS Coordinator Internal Auditor	December 31, 2011	