

BIOSOLIDS EMS — ELEMENT 16.0

INTERNAL EMS AUDIT



REVISION	EFFECTIVE DATE	APPROVAL SIGNATURE
15	12-10-20	

PURPOSE

The Internal Audit is used to determine whether the EMS is effective for meeting the biosolids policy and program requirements, goals and objectives.

SCOPE

This procedure applies to all EMS elements throughout the biosolids value chain.

KEY WORDS

- Environmental Management System (EMS) Audit
- Audit Criteria
- Audit Findings

RESPONSIBILITY

The Biosolids EMS Manager is responsible for:

- Selecting the audit team
- Determining the audit scope
- Providing the list of resource personnel for the audit
- Preparing the necessary facilities for the audit
- Scheduling the necessary management interviews

The Internal Audit Team is responsible for the following during the Internal Audit:

- Identifying the Lead Auditor and qualifications of auditors
- Preparing the audit agenda (if necessary)
- Conducting the audit
- Preparing the audit report

The EMS Management Team, Biosolids Contractor and VCWRF personnel are responsible for:

- Participating in the Internal Audit when needed
- Acting on the Internal Audit Team when needed

THE AUDIT SYSTEM

The National Biosolids Partnership (NBP) provides opportunities for organizations with Platinum Certification to receive recognition for their biosolids management program (BMP) through a series of audits as described in the section below (Refer to NBP's *Self-Assessment as an Interim Audit* -July 2013):

- Third Party *Verification* Audit
- Third Party *Interim* Audit
- Internal *Interim* (Self-Assessment) Audit

Third Party Verification Audit

NBP Platinum Certification (the highest level) of an organization's biosolids management program (BMP) requires the successful completion of a third party verification audit at least every 5 years by an accredited independent audit company. This is the most extensive type of evaluation, because the scope of each verification audit must include all parts of the BMP and other subjects (all 17 Elements of the City of Fort Worth EMS). The NBP

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encourages biosolids organizations to submit an application for the third party verification audit two or three months in advance of their desired audit date to allow sufficient lead time to conduct contract negotiations and schedule the third party verification audit.

Interim Audits

- **Third Party Interim Audit**

Interim audits are conducted in each intervening year between verification audits. Interim audits are intended to verify that the organization's BMP is functioning effectively (ie. doing what it is intended to do) and continues to meet NBP expectations and requirements. The scope of each interim audit includes parts of the organization's BMP (so that all 17 Elements of the EMS are covered during the 4 interim audits) and other required reviews, as defined in NBP's *Third Party Verification Auditor Guidance*. Interim audits in years 1 and 3 following verification are conducted by an accredited third party audit company.

- **Internal (Self-Assessment) Audit**

In years 2 and 4, the organization can choose to have the interim audits conducted by the third party audit company, or it may substitute an internal self-assessment as the interim audit. This arrangement is made in consultation with the organization's third party auditor.

The organization will submit its internal (self-assessment) audit report to the NBP and its assigned third party auditor, preferably within 10 days of its NBP verification anniversary date (City of Fort Worth Anniversary Date is October 15th).

Options For An Interim Audit

The organization utilizes one of the following three processes for an interim audit, as outlined in the *NBP Self-Assessment as an Interim Audit* (July 2013) publication:

1. The third party auditor completes the interim audit.
 - The third party auditor submits a copy of the interim audit report to NBP.
 - The third party auditor submits a statement that the verification of the organization is continued (or not) for another year.
 - If verification is continued, NBP provides the organization with Platinum Certification for another year.
2. The organization completes a self-assessment for its interim audit, with third party auditor review.
 - The third party auditor provides feedback to the organization. This review may incur a fee charged by the third party audit company.
 - The organization revises its self-assessment report, if needed, and submits it to the NBP.
 - If applicable, the third party auditor submits a statement to the NBP that the audit company verification of the organization is continued for another year.
 - Based on the recommendation of the third party auditor, NBP determines whether or not to continue the organization's Platinum Certification for another year.
3. The organization completes a self-assessment (internal audit) for its interim audit.
 - The organization submits its self-assessment report to the NBP, if the third party audit is not needed to ensure proper system functioning and health.
 - The organization fully discloses the results of its self-assessment to interested parties and the public, either in the form of the full report or as a summary detailing the results.
 - The NBP reviews the self-assessment report to determine whether or not to continue the organization's Platinum Certification for another year.

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PROCEDURE

Internal Interim Audits

Internal audits are conducted by the City of Fort Worth using one of the following two formats as required and documented in the EMS Planning Schedule (located in the EMS Manual) and the section below. These two types of internal audits utilize the same basic procedure; however, the Internal (Pre-Interim) Audit precedes a third-party audit, unlike the Self-Assessment audit.

- **Internal (Self-Assessment) Audit**

If a third party auditor is not utilized, then the City shall conduct an internal interim audit that evaluates the biosolids EMS management activities performed by the Contractor and the City. City-conducted internal audits follow the procedures outlined in the *National Biosolids Partnership (NBP) Third-Party Guidance Manual* and supplements. Interim audits shall meet the following criteria:

- **Auditor Selection**
The Biosolids EMS Manager assigns personnel experienced with the NBP audit process to conduct the interim audits.
- **Audit Plan**
Before the interim audit, the Biosolids EMS Manager meets with the Audit Team to develop an audit plan.
- **Identification of Lead Auditor & Auditor Qualifications**
The Audit Team selects the lead auditor. The lead auditor's qualifications must be stated.
- **Auditor Criteria**
The Audit Team uses the criteria established in the National Biosolids Partnership Third Party Verification Auditor Guidance and associated updates.
- **Audit Resource Personnel**
The Biosolids EMS Manager provides a list of resource personnel from Village Creek Water Reclamation Facility and the EMS Team that aids the auditors.
- **Facilities**
The Biosolids EMS Manager also coordinates the necessary facilities for the auditors and any employees that the auditors would like to interview.
- **Audit Scope:** The Interim Audit Team audits the identified elements in the appropriate year and follows the Audit Schedule from Table 16.1.

- **Internal (Pre-Interim) Audit**

If the City of Fort Worth uses a third party auditor to complete an interim audit, the City is also required to complete an internal audit (pre-interim audit) prior to the third-party audit. This process was implemented as a result of the third party interim audit conducted in October 2013, when the auditor noted the following minor nonconformance:

Requirement 16.1 – Fort Worth did not perform the required internal audit in 2013. (Note: The Fort Worth Internal EMS Audit – EMS Element 16.0 procedure incorrectly indicates that internal audits are not required to be performed if a NBP approved third party audit is conducted.)

In response to the third party auditor report, the City completed CAN # 2013-15 and conducts an internal (pre-interim) audit before each third-party audit using the same procedure as described above for the self-assessment audit. Pre-interim audits focus on the Biosolids Program's overall environmental performance, compliance status, EMS goals and objectives, and evaluation of all Corrective Action Notices (CANs) during the previous reporting year (August 1-July 31).

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Upcoming Audit Notification To Interested Parties

City of Fort Worth staff and/or the biosolids contractor alert interested parties of any upcoming interim or verification audit, as outlined in Elements 6.0, 9.0. Notification methods shall include the following:

- **City Website**
The Water Department web pages on the City's website maintains relevant information on the Biosolids Program. The meeting time and location of upcoming interim and verification audits is posted and interested parties are invited to attend.
- **Landowners, Interested Parties, and Regulators**
The Biosolids Contractor will notify landowners and local officials of upcoming interim and verification audits by email or letter. State and federal regulators will be notified via email of upcoming audits.

Audit Report & Findings

An Audit Report contains the following components:

- A summary of findings based on audit criteria.
- Evidence of nonconformance and any recommended corrective actions.
- Proposed methods to share results with employees, partners, and the public.

Management Review of Audit Findings

The Biosolids EMS Manager discusses the audit report with the appropriate EMS Management Team members, supervisors, employees or contractors to verify any nonconformance issues, as discussed in Element 17.0. Feedback from the EMS Management Team and other parties will be used to help formulate any needed corrective actions.

Corrective Action Notices (CANs)

The Biosolids EMS Manager and assigned personnel complete a Corrective Action Notice (CAN) form, as described in Element 14.0, for each confirmed nonconformance identified during an audit. The CAN includes a description of the problem, the results of a root cause analysis, and appropriate measures and effective solutions to mitigate significant environmental impacts and prevent reoccurrence. Corrective actions are prepared and submitted to a third-party auditor usually within 30 days for minor non-conformities, or 90 days for major nonconformities (unless the auditor and biosolids organization have made mutually agreeable alternative arrangements).

Notice of Audit Results to Interested Parties

Once the EMS Management Team has reviewed the internal and/or third party audit results and provided feedback as necessary and appropriate, the Biosolids EMS Manager and Biosolids EMS Coordinator will address any concerns from the Management Team. Then, the audit report(s) will be provided to interested parties (including the general public) in a manner that is consistent with the public participation and communication system discussed in Elements 6.0 and 9.0.

Schedule

The NBP third party Interim and Verification audits occur as follows:

- Year 10 Reverification (third-party audit required) & Pre-Interim Audit
- Year 11 Interim Audit (third-party audit optional*)
- Year 12 Interim Audit (third-party audit required) & Pre-Interim Audit
- Year 13 Interim Audit (third-party audit optional*)
- Year 14 Interim Audit (third-party audit required)& Pre-Interim Audit
- Year 15 Reverification (third-party audit required) & Pre-Interim Audit

**If the third-party audit is utilized, then the City must conduct a pre-interim audit*

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Table 16.1: Audit Schedule Table for Interim Audits

Area	Element		YR10 (2016)**	YR11 (2017)	YR12 (2018)	YR13 (2019)	YR14 (2020)	YR15 (2021)
			Re- verification 3 rd Party	Interim Audit (third party audit optional*)	Interim Audit (third party audit required)	Interim Audit (third party audit optional*)	Interim Audit (third party audit required)	Re- verification 3 rd Party
Policy	1.0	Documentation of EMS	X	X	X	X	X	X
	2.0	Biosolids Policy	X	X	X	X	X	X
Planning	3.0	Critical Control Points	X	X				X
	4.0	Legal & Other Requirements	X				X	X
	5.0	Goals & Objectives	X	X	X	X	X	X
	6.0	Public Participation in Planning	X			X		X
Implementation	7.0	Roles & Responsibilities	X				X	X
	8.0	Training	X		X			X
	9.0	Communication	X			X		X
	10.0	Operational Controls	X	X	X	X	X	X
	11.0	Emergency Preparedness & Response	X				X	X
	12.0	Document Control & Recordkeeping	X	X				X
Measurement & Corrective Action	13.0	Monitoring & Measurement	X	X				X
	14.0	Nonconformances: Preventative & Corrective Action	X	X	X	X	X	X
	15.0	Biosolids Program & EMS Performance Report	X	X	X	X	X	X
	16.0	Internal EMS Audit	X			X		X
Management Review	17.0	Periodic Management Review of Performance	X	X	X	X	X	X
Outcomes		Environmental Performance	X	X	X	X	X	X
		Regulatory Compliance		X	X	X	X	X
		Interested Party Relations		X	X	X	X	X
		Quality Practices		X	X	X	X	X
Open Nonconformances		Open Nonconformances		X	X	X	X	X

Shaded areas are required by "Elements of an EMS for Biosolids"

*The City's pre-interim audits are required before third-party audits. **The schedule for this Audit Schedule Table was revised in 2016, because of a contract renewal delay. Originally, a re-verification audit would have been scheduled for 2015.

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REFERENCES

- BMP Guidance Manual, (NBP, June 2011)
- Code of Good Practice, (NBP, June 2011)
- Manual of Good Practice for Biosolids, (NBP, June 2011)
- Self-Assessment as an Interim Audit, (NBP, July 2013)
- Third Party Auditor Guidance, (NBP, August 2011)

EMS Cross References

- Element 6.0 Public Participation in Planning
- Element 9.0 Communication and Public Outreach
- Element 12.0 Documentation and Document Control
- Element 14.0 Nonconformance: Preventative and Corrective Action
- Element 15.0 Biosolids Program and EMS Performance Report
- Element 17.0 Periodic Management Review of Performance

REVISION HISTORY

Revision #	Date	Revision Description
15	12/10/2020	Added The Audit System and Upcoming Audit Notification sections; Revised Preventive Measures & Recommended Solution, Third Party Audit Results, Corrective Action Notices, Procedure and References sections, and Audit Schedule Table
14	09/21/2018	Update to Procedure and References sections
13	08/02/2016	Merged element to new format, updated audit schedule (Table 16.1)
12	10/06/2014	Revised internal audit procedure to include evaluation of CANs
11	01/06/2014	Revise audit procedure in response to CAN 2013-16
10	08/26/2013	Update internal audit procedures in response to CAN 2013-05
09	08/05/2013	Updated references, procedures regarding pre-interim audits and audit report finding, updated Table 1
08	07/29/2011	Update Table 1
07	06/10/2011	Clarify interim and pre-interim audit requirements
06	11/16/2010	Update references and audit procedures (interim & internal)
05	06/29/2007	Audit (YR1) 2006
04	05/10/2006	Auditor revisions according to Management Review
03	05/26/2005	3 rd Party Audit Phase I Revisions
02	11/29/2004	2004 Issue
01	10/01/2004	Approval Draft
SR	01/30/2004	Issued for Status Review