



EMS Guidance

- Welcome
- About NBP
- Newsroom
- Calendar
- Toolbox
- EMS Guidance
- Technical Resources
- In Your Region
- Across the U.S.
- International News
- Editor's Column
- Important Links
- How to Contact Us
- Register
- Search
- Home

Biosolids Environmental Management System Gap Analysis

AGENCY 3 - EPA REGION 5

EMS Element	Purpose of Element	Gap Analysis for A	
		Current Situation <i>(per response to questionnaire)</i>	Gaps vis-à-vis Prototype
Environmental Policy	Organizational commitment to Biosolids Code of Practice	Have formal pollution prevention and biosolids reuse policies. P2 policy commits to reduce waste, increase recycling, public education and promotional activities, surrounding communities, industrial user outreach. Biosolids policy commits to reduce waste, increase recycling, public education and promotional activities, annual review, surrounding communities. Also have a mission statement for the program committing to beneficial reuse, agronomically-based, environmentally safe, and publicly acceptable program, stressing key partnerships.	While pollution prevention well-communities and available, biosolids policy yet disseminated although plan to do so. Neither mission statement nor policy specifically co-contractors. Do not specifically commit to compliance.
Planning Environmental Aspects	Process for identifying environmental aspects and impacts of biosolids management activities	Pretreatment program has well developed systems for identifying aspects and impacts, generally and specifically relating to biosolids program, under normal and abnormal circumstances.	Land application program does document site specific impacts/potential impacts, except as needed, site basis, just to application a flagging method

		<p>Maximum allowable headworks loading analysis conducted and used to revise local regulations and guide program. Special process to deal with new businesses and limits. Well documented and kept up to date. Land application program identifies slopes for sites and soil type. Aerial photographs also taken and used to guide application.</p>	
<p>Planning Legal & Other Requirements</p>	<p>Process for tracking and evaluating applicable legal and other requirements</p>	<p>Utility well connected with state Water Environment Association, including Biosolids Committee participation, as a mechanism to get information and provide input. Also have strong two-way relationship with state regulatory agency. Staff attendance at national events, e.g., conferences facilitated and fostered. Regularly receive relevant information from a variety of sources. Led or leading key regulatory initiatives in state.</p>	<p>City does not obligate contractor to track or be date on specific regulatory requirements. Uncertain as to contractor's knowledge in area.</p>
<p>Planning Objectives & Targets</p>	<p>Establishing long- and short-term improvement goals for biosolids management</p>	<p>Program implemented has achieved positive, significant results in reducing key pollutant levels in biosolids. Staff are very knowledgeable about implicit goals and objectives.</p>	<p>Specific goals objectives, and targets are few not formalized those that exist established predominantly hoc and unsystematic</p>
<p>Planning Biosolids Mgt. Program</p>	<p>Program to achieve biosolids management objectives and targets, incl. Compliance and best practices</p>	<p>Have a formal program in place and documented to achieve compliance with pretreatment program regulations, NPDES permit requirements, and land application/beneficial reuse. Includes all relevant operations from pretreatment to</p>	<p>Since objectives not established, program is not tied to a Long-term schedules not established, no long-term needs identified. Program is not contractually extended to contractors. N</p>

		application. Responsibilities are defined. Covers selection and implementation of BMPs from plant operations to site application.	process for p review.
Implementation Structure & Responsibility	Defining organizational roles and responsibilities for biosolids management	Management representatives identified and roles well-defined and followed. POTW vests most authority/responsibility in a "Biosolids Coordinator," although success depends on good teamwork, which is evident. Authority and responsibility are broad enough to effectively implement and oversee program. Job responsibilities adequately communicated to all employees.	Environmental responsibilities passed on to contractor trucks and applied to biosolids. Also some responsibilities that do exist are enforced.
Implementation Training	Training program to provide necessary awareness, skills, and knowledge for biosolids mgt., incl. best practices	Utility has programs covering training, cross-training, orientation, certification, and tuition reimbursement. Training well documented in City files, and in POTW files. Test competency and document results. Operator certification classes include some biosolids training. Biosolids Coordinator has taken special biosolids management course offered by Michigan State University. Methods well-matched to organization size/structure.	Utility program largely at individual or management initiative. Also strongly integrated into personal performance objectives. Training requirements contractor staff completely addressed.
Implementation Communication	Formal process for internal and external communication on biosolids management	Community outreach efforts very strong. Examples include household hazardous waste collection days, a variety of newsletters, site tours (including for schools), industrial outreach (including technical assistance), and most importantly,	Procedures and guidelines for responding to external complaints/queries not established.

		<p>strong outreach with officials in the 29 townships in application area. Program is very proactive and systematic. Internal communication systems good. Biosolids issues discussed at various formal and informal meetings, and other media (e.g., bulletin board postings, e-mail, etc.).</p>	
Implementation Documentation & Document Control	Formal process for creation, storage, use, modification, and disposal of EMS documents	<p>Pretreatment program well-documented, including enforcement response plan, chain of custody forms, quarterly and annual reports, and analytical results. Document creation and retention standards established. Documents related to plant operation also thorough and detailed. POTW keeps detailed records on application activities on a site-by-site basis. Well organized and complete.</p>	Contractor fac requirements.
Implementation Operational Control	Detailed procedures addressing environmental aspects of biosolids mgt. (best practices procedures)	<p>All activities covered and managed by strong working knowledge of good management practices and by experience. However, most key procedures, specifications, and work instructions not documented for practical use or for use as a working guide.</p>	<p>Some specific that do exist a hard to find/us location. Proc for developing selecting next application loc and follow-up monitoring not itemized in wri Contractor's operating procedures n reviewed (see lack of trainin</p>
Implementation Emergency Preparedness & Response	Procedures to prepare and respond to emergency conditions, including emergency communication	<p>Plant staff, contractor, and City have responded effectively to selected emergency incidents, including truck cap blow-off, application on wrong field, and other minor spills. Have an excellent system in place to make daily evaluations of weather conditions and make decisions</p>	<p>Neither the pl its contractor formal Emerg Preparedness Response Pla Both requirem exist in propo program (Pro for Effective Residuals Management PERM). Not conducting pr drills for poten incidents.</p>

		regarding application. Also have more than adequate storage capacity and back-up procedures in the event application cannot occur.	
Checking Monitoring & Measurement	Procedures for routine compliance monitoring and measuring progress on objectives/targets	Utility monitors and measures key requirements on regular basis—procedures in place and followed. Has all necessary equipment and maintains records. Extensive monitoring and record-keeping of site activities done by Biosolids Coordinator.	Since no form objectives/tar these not mon or measured. Regulatory compliance o evaluated at p state. Uncerta about contrac procedures fo equipment maintenance calibration.
Checking Nonconformance, Corrective & Preventive Action	Procedure for identifying and addressing nonconformances to internal EMS requirements	Procedures for nonconformance and corrective action covering pretreatment, plant operations, and storage issues in place and followed. Management involved as necessary. With exception of required and necessary investigative sampling/monitoring and follow-up, formal process not followed so much as best professional judgement, experience, and common sense.	Procedures fo either contrac the City to cor and/or preven nonconforma transportation final dispositio in place. How City does iden nonconforma
Checking Records	Procedure for maintenance and disposal of biosolids management records	Utility has and maintains relevant records. Record-keeping in areas of monitoring, legislation and regulatory requirements, training, and inspections especially good. Retention times established and followed.	Emergency response procedures a records lackin Also, reports audits not exi no audit progr
Checking Internal Audit	Procedure for periodic internal auditing of EMS	Some informal, activity-specific review occurs on an ad hoc basis, for example, as part of internal monthly reporting.	Formal intern program does exist.
Management Review	Process for review by senior management of the effectiveness of the EMS and improvement	Utility has a wide variety of venues where management review occurs, including twice-monthly staff	Objectives an targets not for established, therefore not specifically co in these revie

	progress	meetings, weekly operating meetings, quarterly-all hands meetings, and annual budget meeting. Also have two mid-year meetings to evaluate operations and activities. Reviews are documented.	Also, internal auditing not p program. Gen not as system proactive, or detailed as co
--	----------	--	---

This gap analyses was conducted using a Prototype EMS and screening level questionnaire developed by the National Biosolids Partnership for information gathering and demonstration purposes. It should be understood that the gap analysis results summarized above are based primarily on on-site interviews of the management team responsible for pretreatment, wastewater treatment, and biosolids management activities at the participating utilities. The findings reflect the interview team's interpretation of the degree to which a formal biosolids management system is in place and functioning effectively.

The findings are, however, based primarily on self-declared representations of the current situation and limited document reviews, which is no substitute for a more rigorous, in-depth verification audit process involving on-site staff interviews, and detailed work place observations. A formal EMS verification audit would be based on a common set of biosolids management procedures/practices that are under development. Finally, the audit would examine in much greater detail the *linkages* among various biosolids activities in order to determine whether an actual management *system* was in place and functioning effectively. The gap analyses presented in this report, by necessity, focused more on the existence of certain activities, not their linkages.

601 Wythe Street
 Alexandria, VA 22314
 Tel: 703 684 2400
 Fax: 703 684 2492
info@nbp.org

[Welcome](#) | [About NBP](#) | [Newsroom](#) | [Calendar](#) | [Toolbox](#) | [EMS Guidance](#) | [Technical Resources](#) | [In Your Region](#) | [Across the US](#) | [International News](#) | [Editors Column](#) | [Important Links](#) | [How to Contact Us](#) | [Register](#) | [Search](#) | [Home](#)