

Element 10: Operational Control of Critical Control Points – Background

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BACKGROUND

This element describes how the Metro District’s operational controls regulate biosolids management activities to ensure that critical control points are managed within acceptable parameters.

The District’s EMS Workgroup has established operational controls for each critical control point related to the management of its biosolids activities, from planning through final disposition. Critical Control Points (CCP) are listed in Element #3-List. Operational controls, under their CCP, can be found in this element divided by the related biosolids value chain categories (Planning, Wastewater Transmission & Pretreatment, Wastewater Treatment & Solids Processing, Biosolids Processing, Biosolids Handling & Transport, and Biosolids Recycling & Alternatives). All biosolids value chain categories, critical control points, and operational controls are established per the NBP National Manual of Good Practice (NMGP), the District’s current biosolids activities, and reflect current processes and terminology used at the District.

To ensure the District’s EMS Workgroup established its biosolids value chain, critical control points, and operational controls consistent with those identified in the NMGP, documentation describing the process used by the EMS Workgroup is available upon request. This documentation includes memos and a comparison table of the biosolids value chain, critical control points, and operational controls. The comparison table also shows the terminology differences used in the NMGP and those used at the District.

Operational Controls will be reviewed in the future, as needed, to reflect operational or process changes such as new municipal/industrial/commercial discharges, new legal/regulatory/permit requirements and modifications to biosolids treatment technology and methods of disposition.

Operational Controls associated with critical control points and monitoring and measurement SOPs describe process practices, monitoring, measurement, testing and/or inspection methods used to assure biosolids and biosolids activities meet all applicable legal, quality, environmental protection and public acceptance requirements. The Biosolids Value Chain and Critical Control Points with environmental impacts can be found in Element #3-List of this manual.

Contractors are limited to construction-related and maintenance facilities activities for the District’s infrastructure, Robert W. Hite Treatment Facility (RWHTF) and the METROGRO Farm facilities. To minimize any negative impacts to the high quality of biosolids produced by the District, the Project Impact Checklist procedure followed by project initiators and Department Project Managers includes a review and signoff by the EMS Coordinator. Engineering District Project Managers (DPM) will be responsible for overseeing construction activities to ensure the environmental issues are followed through.

Element 10: Operational Control of Critical Control Points – Procedure

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PURPOSE

To describe the process used by the Metro District’s EMS Workgroup to establish and maintain the operational controls for each critical control point for managing its biosolids activities to ensure legal, quality, environmental protection, public acceptance, and continual improvements are being met.

SCOPE

This procedure covers all the management operational controls throughout the biosolids value chain from planning to final disposition. Operational procedures supporting the critical control points will be reviewed and revised as necessary based on the program goals and objectives and legal and other requirements.

REFERENCES

- NBP National Manual of Good Practice
- Element #2: Biosolids Management Policy
- Element #3: Biosolids Value Chain and Critical Control Points - List
- Element #5: Goals and Objectives
- Element #10: Operational Controls - Table
- Element #12: Management of Change
- Element #13: Monitoring & Measurement
- Computerized Maintenance Management System (CMMS) Database
- EMS SOP Review/Update Frequency list (by Department)
- EMS-related SOP Performance Audit list

DEFINITIONS

Biosolids Value Chain – sequence of activities from planning, wastewater pretreatment, discharge and collection through wastewater treatment, solids treatment and handling, storage, transportation, and final disposition of biosolids that impact the quality and stability of biosolids and their suitability for the selected management method.

Critical Control Points – those locations, unit processes, events, and activities throughout the biosolids value chain under the organization’s direct control or influence that require effective policies, programs, procedures, practices, monitoring and measurements to assure the biosolids activities meet applicable legal, quality and public acceptance requirements and do not have undesirable environmental impacts. Critical control points include all biosolids management activities that are covered under applicable legal and other requirements.

Operational Controls – ordinances, regulations, standard operating procedures, practices, technology, instrumentation and process controls, monitoring and other criteria developed, implemented, and maintained by an organization to ensure effective management of all critical

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control points associated with its biosolids management activities; including conformance with biosolids management policy requirements; and achievement of biosolids program goals and objectives.

RESPONSIBLE PERSONS

- EMS Coordinator
- EMS Workgroup
- Department Heads

RELATED TRAINING

For related training, please refer to Element #8 of this manual.

PROCEDURAL STEPS

1. The EMS Workgroup will establish and maintain up-to-date operational controls for the critical control points applicable to the District's biosolids management activities from planning to final disposition.
2. Appropriate employees within each department are assigned document control responsibility for operational controls that include monitoring and sampling activities, record-keeping documents and, if appropriate, the name and location of the Standard Operating Procedure (SOP) associated with operational controls they are responsible for.
3. The EMS Coordinator will work with the appropriate EMS Workgroup member to ensure SOPs are reviewed, audited, and updated based on the frequency determined by each Department and as noted on the EMS SOP Review/Update Frequency list and the EMS-related SOP Performance Audit list.
4. All revisions of Operational Controls of Critical Control Points will be reviewed annually as outlined in Element #3 procedure.

Note: *All parts inventory, preventive, and corrective maintenance records are managed through the District's Computerized Maintenance Management System (CMMS) Database. Preventive Maintenance Schedules are developed on time, miles, and hours frequency taking into consideration the manufacturer recommendations and the District's working environment.*