

Metro Wastewater Reclamation District  
Environmental Management System for Biosolids

**Element 10: Biosolids Processing (BVC) – Anaerobic Digestion (CCP) - Table**

Revision: 08	Revision Date: 06/24/09	Approved By:
--------------	-------------------------	--------------

**PURPOSE**

To stabilize primary and waste activated sludge to meet requirements for Class B biosolids prior to dewatering.

**SCOPE**

This critical control point provides for effective operation and maintenance of the anaerobic digestion unit process.

Operational Controls (Practices)	Applicable Legal & Other Requirements	Procedural Documents (record series code)	Monitoring & Measurement (record series code)	Responsible	
				Division/ Department	Person
Process Control and Digester Sludge Production <ul style="list-style-type: none"> <li>▪ Volumetric loading</li> <li>▪ Total &amp; volatile solids loading</li> <li>▪ Temperature</li> <li>▪ pH</li> <li>▪ Volatile acids</li> <li>▪ Alkalinity</li> <li>▪ Detention time</li> <li>▪ Cleaning frequency (Digester Cleanout)</li> </ul>	US EPA 40 CFR 503 (GOV 15.30)  Colorado Discharge Permit (GOV 15.30)  CDPH&E Reg. #64	Anaerobic Digestion Procedures (PER 10.5)  Digester In Service Procedure (PER 10.5)  Anaerobic Digestion Area Procedures and Expectations (PER 10.5)  Weekly Performance Targets (PER 15.65)  Digestion Standard Operating Procedures (PER 10.5)  RR&R Digester Cleanout (PER 10.5)	Process Control System; ODS Database (OPER 05 Monthly Operations (ODS): worksheet)          Biosolids Annual Report (GOV 15.10) LabWorks Database	Treatment/ O&M	Treatment Superintendent  Treatment Personnel
		RWHTF O&M Manual (OPER 05)  Daily Process Directive (OPER 05 Logs, Oper PLT, OB1)	Process Control System; ODS Database (OPER 05 Monthly Operations (ODS): worksheet)	Treatment/ O&M	Treatment Superintendent  Treatment Division Personnel
Biosolids Quality Monitoring <ul style="list-style-type: none"> <li>▪ Pathogen destruction</li> <li>▪ Vector Attraction Reduction</li> <li>▪ Pollutants</li> </ul>	US EPA 40 CFR 503 (GOV 15.30)  Colorado Discharge Permit (GOV 15.30)  CDPH&E Reg. #64	Biosolids Processing Protocol (OPER 40.30 and OPER 30.3) Sampling Plan (PER 10.5) E-Logger (SMPL 01)	LabWorks Database Bench Sheets (OPER 55.35)    Biosolids Annual Report (GOV 15.10)  BRR Self-Monitoring Report (OPER 40.30)	Analytical Services/ES    RR&R	Chief of Analytical Services  Lab Personnel  Administrative Specialist  Administrative Personnel

Metro Wastewater Reclamation District  
Environmental Management System for Biosolids

**Element 10: Biosolids Processing (BVC) – Anaerobic Digestion (CCP) - Table**

Revision: 08	Revision Date: 06/24/09	Approved By:
--------------	-------------------------	--------------

Operational Controls (Practices)	Applicable Legal & Other Requirements	Procedural Documents (record series code)	Monitoring & Measurement (record series code)	Responsible	
				Division/ Department	Person
Odor Control & Emissions <ul style="list-style-type: none"> <li>• Odor Intensity Rating Certification</li> <li>• Odor Monitoring</li> </ul>	CDPH&E Reg. #2 Part A (GOV 15.10)  Title V Air Emissions Permit (GOV 15.10)	Robert W. Hite Treatment Facility and Ag Site Odor Monitoring (PER 10.5)	Off-Site Odor Monitoring Surveillance Logs (GOV 15.10)  Employee Certification (PER 40.40)  Odor Monitoring Calendar (OPER 40.40)	RR&R	Administrative Specialist  Administrative Personnel  Superintendent  Treatment Personnel
			Odor Report (GOV 15.10 – CDPHE/APCD/ Odor Complaints)		Regulatory Compliance/ ES
Maintenance <ul style="list-style-type: none"> <li>▪ Preventive</li> <li>▪ Predictive</li> <li>▪ Corrective</li> </ul>	Colorado Discharge Permit (GOV 15.30)	O&M Manual Maintenance (HLDTK, ADTANK, ADGAS, ADMALL)  Maintenance Reference Manual (PER 10.5 SOP-O&M (maint))	CMMS database and reports (OPER 55.50 Maintenance Reports Equipment History Detail - HLDTK, ADTANK, ADGAS, ADMALL)	Maintenance/ O&M	Maintenance Superintendent  Maintenance Personnel