

BIOSOLIDS EMS — ELEMENT 4.0

LEGAL AND OTHER REQUIREMENTS



REVISION	EFFECTIVE DATE	APPROVAL SIGNATURE
14	October 06, 2021	

PURPOSE

This element summarizes the formal process used by the City of Fort Worth Water Department and Village Creek Water Reclamation Facility (VCWRF) to identify, track and respond to developments and changes in current and pending legislation, permit requirements, and regulations at the federal, state, and local level that affect biosolids operations and management activities. Compliance with applicable legal and other requirements is a central component of the *Code Of Good Practice*. To operate effectively, an organization must properly interpret and document legal and other requirements, and incorporate necessary changes and modifications into the BMP elements. Anticipating new requirements in advance, provides additional time to evaluate state-of-the-art technologies and best management practices, and prepares staff and contractors for new procedures and changes in daily operations. Furthermore, current and pending regulatory requirements must be incorporated into business planning so that capital expenditures are available for pollution control and treatment process modifications.

SCOPE

The procedures outlined in this element apply to the biosolids management activities at all critical control points throughout the biosolids value chain, including the pretreatment program, VCWRF liquid and solids operations, biosolids beneficial reuse and the future marketing and sale of biosolids for beneficial reuse. Locations identified in the Biosolids Value Chain have been cross-referenced with the appropriate regulations in Table 4.1.

KEY WORDS

- Code of Federal Regulations (CFR)
- U.S. Environmental Protection Agency (EPA)
- Legal Requirements
- Operational Control Procedure
- Other Management Controls
- Other Requirements
- Texas Administrative Code (TAC)
- Texas Commission on Environmental Quality (TCEQ)

RESPONSIBILITY

Assistant Director (Plant Operations)—responsible for acquiring the necessary staff, capital and operating resources needed to implement new legal/regulatory requirements and technology upgrades.

Village Creek Manager (Plant Operations-Wastewater) — responsible for developing and coordinating a strategy to implement new legal and other requirements.

Sr. Capital Projects Officer (Plant Operations-Water & Wastewater)—responsible for developing and coordinating a strategy to implement new legal and other requirements.

Engineering Manager (Plant Operations) — responsible for developing and coordinating a strategy to implement new legal and other requirements.

Superintendent (Plant Operations-Wastewater)—responsible for tracking, evaluating and implementing applicable federal, state, and local requirements for wastewater treatment.

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Assistant Superintendent (Plant Operations-Wastewater) — responsible for implementing operational controls to ensure compliance with federal, state and local wastewater requirements. Implements monitoring procedures and ensures that that operators are fully trained to perform required activities.

Regulatory/Environmental (R/E) Administrator (Strategic Operations) — responsible for identifying and tracking proposed environmental regulations at the federal, state or local level. Notifies staff of proposed regulatory changes. Coordinates regulatory activities between divisions within the Water Department.

Biosolids Environmental Management System (EMS) Manager (Plant Operations)—responsible for tracking, evaluating and implementing applicable federal, state, and local requirements for the biosolids program. Performs and oversees oversight activities of Biosolids Contractor.

Biosolids EMS Coordinator (Plant Operations)—responsible for tracking biosolids regulatory requirements, as well as updating the appropriate elements in the Environmental Management System manual with any new rules or requirements.

*EMS Element 7.0- Roles and Responsibilities describes the primary work functions of personnel associated with the City of Fort Worth Biosolids Value Chain.

PROCEDURE

The Regulatory/Environmental Administrator, Biosolids EMS Manager, and Biosolids EMS Coordinator are responsible for tracking all federal, state, and local legal and regulatory requirements that apply to biosolids production and beneficial reuse. Sources of information used to determine legal and other requirements include the Federal Register, the National Biosolids Partnership Bulletins, Water Environment Federation (WEF), National Association of Clean Water Agencies, Water Environment Association of Texas, bulletins (i.e., WEF - Biosolids Technical Bulletin) and various industry websites. City staff also receive information directly from EPA, TCEQ, and other state agencies.

The R/E Administrator is the primary City contact who corresponds with TCEQ and the EPA on issues that affect the Texas Pollutant Discharge Elimination System (TPDES) permit and other regulatory requirements for the Village Creek Water Reclamation Facility. The R/E Administrator reviews and evaluates proposed changes and notifies the Water Director and department managers, as appropriate. The R/E Administrator discusses the pending requirements with City staff and may prepare a response for review by the City Attorney's Office and submittal to TCEQ or EPA as part of the public comment process.

The City of Fort Worth also participates proactively in Texas legislative and regulatory activities through a lobby group that tracks similar biosolids developments in other states. Current and pending legal requirements, innovative technology updates, market value data and input from interested parties, are circulated to the EMS Management Team (EMT) through emails, staff meeting discussions, and presentations. The EMT also considers wastewater stabilization and conditioning developments to identify state-of-the-art technology and best management practices for solids and biosolids treatment. The EMT works with the Biosolids Manager to develop short and long-term goals and objectives for the program based on available information, and determines what resources and capital investments are necessary to implement an action plan. Commitment of resources, prioritization of Capital Improvement Projects and approval of biosolids management practices is coordinated by the Assistant Water Director of the Plant Operations Division during the annual budgeting and planning process.

The Industrial Pretreatment Manager in the Customer Care division, also tracks categorical pretreatment requirements and coordinates with the Assistant Water Director and R/E Administrator to ensure legal and other requirements for pollution control are properly identified, evaluated and achieved.

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Revisions and Updates

The **Table 4.1-Regulations Applicable to the VCWRF Biosolids Value Chain** (legal table) located at the end of this element, will be reviewed annually and updated (if needed) by **August 1st**. The table will also be reissued after each update to all EMS Manual copies. EMS Manual locations are identified in Element 1.0. When the review is complete, the Biosolids EMS Coordinator will sign and date the *Element 4.0: Regulations Applicable To The Biosolids Value Chain Review Form* located in the EMS manual, even if Table 4.1 has not been updated.

Class AB Biosolids

On September 10th, 2014 the Texas Commission on Environmental Quality (TCEQ) amended the existing biosolids regulations as defined in 30 TAC Chapter 312. The revised regulations included a new designation for biosolids (Class AB) as well as requirements for odor control plans and the posting of signage at land applications sites. The new provisions became effective on October 2, 2014, at which time the City of Fort Worth land application activities assumed the new “Class AB” classification.

REFERENCES

- BMP Guidance Manual, (NBP, June 2011)
- Code of Federal Regulations (<https://www.govinfo.gov/app/collection/cfr>)
- Texas Administrative Code (<http://www.sos.state.tx.us/tac/>)
- City of Fort Worth TPDES Permit WQ0010494013

EMS Cross References:

- Element 1.0 Documentation of EMS for Biosolids
- Element 3.0 Critical Control Points
- Element 6.0 Public Participation
- Element 7.0 Roles and Responsibilities
- Element 9.0 Communication
- Element 12.0 EMS Documentation, Document Control and Recordkeeping

ATTACHMENTS

- Table 4.1 — Regulations Applicable to the VCWRF Biosolids Value Chain
- Regulations Applicable to the VCWRF Biosolids Value Chain Review Form

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REVISION HISTORY

Revision #	Date	Revision Description
14	10-06-2021	Update to Purpose, Procedure, Responsibility, Revision and Cross Reference Sections and Table 4.1- (Approval Letter to Renda for use of Var. #1 removed)
13	09/25/2018	Update to Procedure and Table 4.1
12	08/02/2017	Updated legal table, updated references
11	08/01/2016	Updated revision procedures, updated legal table
10	10/30/2015	Updated procedure, updated legal table, converted element to new format
09	10/06/2014	Included information regarding new classification (Class AB)
08	07/30/2014	Updated Element 4.0 table
07	08/05/2013	Updated references, included time frame for Element 4.0 table update/review, updated Element 4.0 table
06	07/29/2011	Update regulations and links in attached table
05	11/16/2010	Update responsibilities and references. Update links in attached table
04	05/15/2008	Audit (YR2) 2007
03	06/29/2007	Audit (YR1) 2006
02	11/29/2004	2004 Issue
01.a	10/18/2004	Internal Audit Revisions
01	10/01/2004	Draft Issue
SR	01/30/2004	Issued for Status Review

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TABLE 4.1 — REGULATIONS APPLICABLE TO THE VCWRF BIOSOLIDS VALUE CHAIN



Regulation	Description	Location	Governing Agency	Area(s) of Influence within the Biosolids Value Chain
<i>Federal Regulations</i>				
CFR Title 40, Chapter 1, Subchapter O- Sewage Sludge, Part 503	Standards for Use or Disposal of Sewage Sludge	https://www.govinfo.gov/content/pkg/CFR-2017-title40-vol32/pdf/CFR-2017-title40-vol32-part503.pdf	EPA	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives - Agricultural Land Application
CFR Title 40, Chapter 1, Subchapter N- Effluent Guidelines and Standards, Parts 403 - 471	General Pretreatment Regulations for Existing and New Sources of Pollution	https://www.ecfr.gov/cgi-bin/text-idx?SID=597df35ad3a4b154b813d821b96d6527&mc=true&tpl=/ecfrbrowse/Title40/40CISubchapN.tpl	EPA	<ul style="list-style-type: none"> Pretreatment and Collection
CFR Title 40, Chapter 1, Subchapter N- Effluent Guidelines and Standards, Parts 403.1-403.20	Pretreatment Streamlining Rule	http://www.gpo.gov/fdsys/pkg/FR-2005-10-14/pdf/05-20001.pdf	EPA	<ul style="list-style-type: none"> Pretreatment and Collection
CFR Title 40, Chapter 1, Subchapter D- Water Programs, Subparts A-D Sections 122.1-122.64	EPA Administered Permit Programs: The National Pollutant Discharge Elimination System	https://www.govinfo.gov/content/pkg/CFR-2017-title40-vol24/pdf/CFR-2017-title40-vol24-part122.pdf	EPA	<ul style="list-style-type: none"> Pretreatment and Collection Wastewater Treatment & Solids Generation Solids Stabilization, Conditioning, & Handling Biosolids Use and Disposal Alternatives - Agricultural Land Application
CFR Title 40, Chapter 1, Subchapter 1-Solid Wastes: Part 261	Identification and Listing of Hazardous Waste	https://www.govinfo.gov/content/pkg/CFR-2017-title40-vol28/pdf/CFR-2017-title40-vol28-part261.pdf	EPA	<ul style="list-style-type: none"> Pretreatment and Collection Solids Generation, & Handling Biosolids Use and Disposal Alternatives
CFR Title 40, Chapter 1, Subchapter I-Solid Wastes: Part 268	Land Disposal Restrictions	https://www.govinfo.gov/content/pkg/CFR-2017-title40-vol29/pdf/CFR-2017-title40-vol29-part268.pdf	EPA	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives - Agricultural Land Application
USC Title 33, Chapter 26, Subchapter IV, Section 1342 (Clean Water Act- Section 402 of 1972 Amendments)	National Pollutant Discharge Elimination System	https://www.gpo.gov/fdsys/pkg/USCODE-2016-title33/pdf/USCODE-2016-title33-chap26-subchapIV-sec1342.pdf	EPA	<ul style="list-style-type: none"> Pretreatment and Collection Wastewater Treatment & Solids Generation Solids Stabilization, Conditioning, & Handling Biosolids Use and Disposal Alternatives - Agricultural Land Application
CFR Title 49, Subtitle B: Federal Motor Carrier Safety Regulations, Chapter III, Subchapter B Part 392	Driving of Motor Vehicles	https://www.govinfo.gov/content/pkg/CFR-2017-title49-vol5/pdf/CFR-2017-title49-vol5-part392.pdf	USDOT	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives - Agricultural Land Application
CFR Title 40, Chapter 1, Subchapter C-Air Programs, Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	https://www.govinfo.gov/content/pkg/CFR-2017-title40-vol7/pdf/CFR-2017-title40-vol7-part60-subpartDc.pdf	EPA	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation

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Regulation	Description	Location	Governing Agency	Area(s) of Influence within the Biosolids Value Chain
CFR Title 40, Chapter 1, Subchapter C-Air Programs, Part 60, Subpart Gg	Standards of Performance for Stationary Gas Turbines	https://www.govinfo.gov/content/pkg/CFR-2017-title40-vol7/pdf/CFR-2017-title40-vol7-part60-subpartGG.pdf	EPA	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
<i>State Regulations</i>				
TAC Title 30, Part 1, Chapter 312-Sludge Use, Disposal, and Transportation, Subchapter A	General Provisions (Notifications, sampling & analysis, fees and permits)	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=312&sch=A&rl=Y	TCEQ	<ul style="list-style-type: none"> Biosolids permitting and implementation
TAC Title 30, Part 1, Chapter 312-Sludge Use, Disposal, and Transportation, Subchapter B	Land Application for beneficial use and storage at beneficial use sites	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=312&sch=B&rl=Y	TCEQ	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives – Agricultural Land Application
TAC Title 30, Part 1, Chapter 312-Sludge Use, Disposal, and Transportation, Subchapter B, Rule 312.50	Storage and Staging of Sludge at Beneficial Use Sites	https://texreg.sos.state.tx.us/public/readtac\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=312&rl=50	TCEQ	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives – Agricultural Land Application
TAC Title 30, Part 1 Chapter 312-Sludge Use, Disposal, and Transportation, Subchapter C	Surface Disposal	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=312&sch=C&rl=Y	TCEQ	<ul style="list-style-type: none"> Surface Disposal Requirements
TAC Title 30, Part 1 Chapter 312-Sludge Use, Disposal, and Transportation, Subchapter D	Pathogen and Vector Attraction Reduction	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=312&sch=D&rl=Y	TCEQ	<ul style="list-style-type: none"> Biosolids Production, Stabilization, and Conditioning
TAC Title 30, Part 1 Chapter 312-Sludge Use, Disposal, and Transportation, Subchapter G	Transporters and temporary storage provisions	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=312&sch=G&rl=Y	TCEQ	<ul style="list-style-type: none"> Biosolids Use and Transportation
TAC Title 30, Part 1 Chapter 30-Occupational Licenses and Registrations, Subchapter J	Wastewater Operators and Operations Companies	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=30&sch=J&rl=Y	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
TAC Title 30, Part 1, Chapter 305, Subchapters A-F, O, P	Consolidated Permits	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=305	TCEQ	<ul style="list-style-type: none"> Pretreatment and Collection Wastewater Treatment & Solids Generation Solids Stabilization, Conditioning, & Handling Biosolids Use and Disposal Alternatives – Agricultural Land Application
TAC Title 30, Part 1, Chapter 307	Texas Surface Water Quality Standards	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=307&rl=Y	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation

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TAC Title 30, Part 1, Chapter 315, Subchapter A	Pretreatment Regulations for Existing and New Sources of Pollution	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=315&sch=A&rl=Y	TCEQ	<ul style="list-style-type: none"> Pretreatment and Collection
TAC Title 30, Part 1, Chapter 319, Subchapters A-C	General Regulations Incorporated into Permits – Monitoring and Accidental Spill Requirements	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=319	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
Health and Safety Code, Title 5- Sanitation and Environmental Quality, Subtitle B, Chapter 361	Solid Waste Disposal Act	https://statutes.capitol.texas.gov/Docs/HS/pdf/HS.361.pdf	TCEQ	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives - Agricultural Land Application
TPDES Permit WQ0010494013	Permit to dispose of wastes from VCWRF	City of Fort Worth Water Department; VCWRF	TCEQ	<ul style="list-style-type: none"> Pretreatment and Collection Wastewater Treatment & Solids Generation Solids Stabilization, Conditioning, & Handling Biosolids Use and Disposal Alternatives - Agricultural Land Application
Texas Transportation Code Title 7	Vehicles and Traffic	http://www.statutes.legis.state.tx.us/?link=TN	TxDPS	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives - Transportation & Agricultural Land Application
TAC Title 30, Part 1, Chapter 101	General Air Quality Rules	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=101	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
TAC Title 30, Part 1, Chapter 115	Control of Air Pollution from Volatile Organic Compounds	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=115	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
TAC Title 30, Part 1 Chapter 116	Control of Air Pollution by Permits for New Construction or Modification	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=116	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
TAC Title 30, part 1, Chapter 117	Control of Air Pollution from Nitrogen Compounds	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=117	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
TAC Title 30, Part 1, Chapter 106 Subchapters C,G,I, K, R, T, U, W, X	Permits by Rule	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=106	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
TAC Title 30, Part 1, Chapter 111	Control of Air Pollution from Visible Emissions and Particulate Matter	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=111	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation

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TAC Title 30, Part 1, Chapter 122	Federal Operating Permits Program	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=122	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
Health and Safety Code, Title 5- Sanitation and Environmental Quality, Subtitle C, Chapter 382	Texas Clean Air Act	https://statutes.capitol.texas.gov/Docs/HS/htm/HS.382.htm	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
TAC Title 30, Part 1, Chapter 210	Use of Reclaimed Water	https://texreg.sos.state.tx.us/public/readtac\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=210	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
Stormwater Multi-Sector General Permit for Industrial Facilities	Authorizes the discharge of stormwater associated with industrial activity	https://www.tceq.texas.gov/assets/public/permitting/stormwater/txr050000.pdf	TCEQ	<ul style="list-style-type: none"> Wastewater Treatment & Solids Generation
<i>Local Regulations</i>				
City of Fort Worth Code of Ordinances Part II, Chapter 12.5 Article VI, Ordinance 20043-01-2012	Environmental Protection and Compliance-Industrial Wastewater	http://publicdocuments.fortworthtexas.gov/CSOD/OCS/DocView.aspx?id=17153&searchid=0290865c-31c2-4249-83df-6a3a64bfd178&dbid=0	City of Fort Worth Environmental Department, Water Department	<ul style="list-style-type: none"> Pretreatment & Collection
<i>Other Requirements and Special Documents</i>				
Special Contract Documents	Contracts between the City and Private Contractors to perform designated operations within the Biosolids Value Chain	City of Fort Worth Water Department; VCWRF	City of Fort Worth Water Department	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives - Agricultural Land Application Solids Stabilization, Conditioning & Handling
Implementation Plan- Vector Attraction Reduction (VAR) Alternative #1	Proposal sent to TCEQ regarding the implementation of VAR Alternative #1	City of Fort Worth Water Department; VCWRF	City of Fort Worth Water Department	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives-Agricultural Land Application Solids Stabilization, Conditioning & Handling
Vector Attraction Reduction Sampling SOP	SOP outlining steps necessary for the successful collection of samples for meeting VAR requirements for Alternative #1	City of Fort Worth Water Department; VCWRF	City of Fort Worth Water Department	<ul style="list-style-type: none"> Biosolids Use and Disposal Alternatives-Agricultural Land Application
Abbreviations				
VCWRF=Village Creek Water Reclamation Facility		TAC=Texas Administrative Code		
CFR=Code of Federal Regulations		TCEQ=Texas Commission on Environmental Quality		
USC=United States Code		TxDPS=Texas Department of Public Safety		
EPA=Environmental Protection Agency		USDOT=United States Department of Transportation		
TPDES=Texas Pollutant Discharge Elimination System		SOP=Standard Operating Procedure		